

Product Range
International
2010

PP/PE
Plastic Piping
Systems



+GF+

GEORG FISCHER
PIPING SYSTEMS

List of abbreviations

ANSI	American National Standard	Tg	Malleable Iron
ASTM	American Society for Testing and Materials	d	Pipe outside diameter
BS	British Standard	FM	Fusion Method
DIN	Deutsche Industrie-Normen	DN	Nominal bore
ISO	International Standardization Organisation	PN	Nominal pressure at 20°C, water
ABS	Acrylnitril Butadien Styrene	kg	Weight in kilograms
PVC-U	Polyvinyl Chloride	g	Weight in grams
PVC-C	Polyvinyl Chloride chlorinated	SP	Standard pack. The figure given indicates the quantity of fittings contained in a standard pack
PP	Polypropylene, heat stabilised	GP	Gross pack. The figure given indicates the quantity of fittings contained in a gross pack
PP-N	Polypropylene, Random copolymer unpigmented	G	Pipe thread, not pressure tight in the thread to ISO 228/1
PE	Polyethylene	NPT	Taper male thread pressure tight in the thread to ANSI B 1.20.1
PVDF	Polyvinylidene fluoride	R	Taper male thread, pressure tight in the thread to ISO 7/DIN 2999/1
EPDM	Ethylene Propylene Rubber	Rc	Taper female thread, pressure tight in the thread to ISO 7/1
FPM	Fluorine Rubber, e.g. Viton®	Rp	Parallel female thread, pressure tight in the thread to ISO 7/DIN 999/1
NBR	Nitrile Rubber	Tr	Trapezoid thread
IIR	Butyl Rubber	SC	Size of hexagon bolts
CSM	Chlore Sulphonyl Polythene, e.g. Hypalon®	s	A/F
CR	Chloroprene Rubber, e.g. Neoprene®	e	Wall thickness
PROGEF	GF of PP	AL	Number of bolt holes
PTFE	Polytetrafluorethylene, e.g. Teflon®	®	Registered trade-mark
UP-GF	Unsaturated polyester resin glassfibre reinforced		
St	Steel		
Ms	Brass		

Over 50 years of Application Know How



Our long experience in plastic piping systems applications is also for your security. Approvals and third party controls are guarantee for continuously high

quality. Many of our products have the necessary approvals of the relevant institutes and thanks to the batch identification they are traceable.

Fields of applications

Our specialists are proving their wide material knowledge and their application experience day by day in various industries:

- Water treatment
- Waste water treatment
- Galvanics
- Chemical industry
- Automotive industry
- Electronic industry
- Energy
- Swimming pools
- Cellulose and paper industry
- Photo industry
- Textile industry
- Shipbuilding
- Beverage industry
- Exhaust gas cleaning
- Chlorine industry
- Cooling and air conditioning
- Refrigeration plants
- Food
- Mining

Do you miss your application in the above list? No problem. Please call us, and we will find a solution according to your specifications.

PP-H Approvals



PP-H Valves, Z40.23-265
 PP-H Fittings, Z40.23-264
 PP-H Pipes
 Z40.23-4

PE 100 Approvals

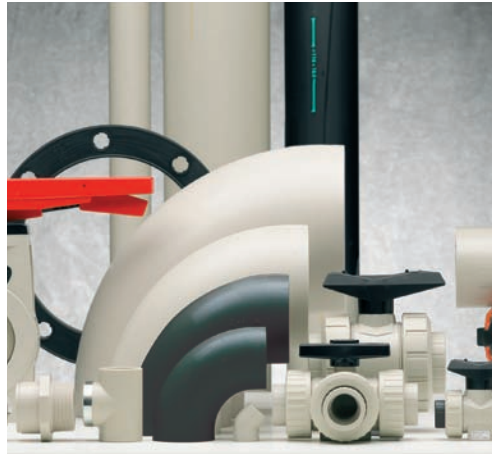


PE-HD Fittings, Z40.23-282

PROGEF®



Quality Products with Advantages



Advantage of Wide Product Ranges

- Fittings
- Hand Operated Valves
- Pipes
- Joining Systems
- Actuated Valves
- Measure and Control Technology
- Machines and Tools



Advantage of Quality

Compound
Our own compound and strict quality controls for each raw material delivery form the basis for GF Piping Systems high quality products.

Production Know-How
Due to know-how gathered over 50 years we are able to produce our products to exceptionally high tolerances.



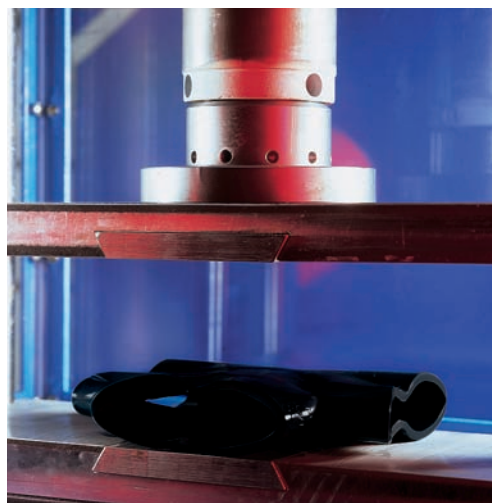
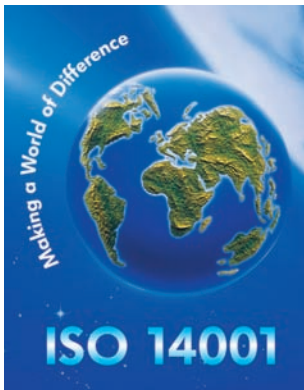
Quality management system certified according to ISO 9001/EN 29001 and ISO 4001



Quelle: ICI
Energy required for 100 m pressurised pipe

Advantage for the Environment

- In addition to the economical advantage of PP and PE there are also ecological advantages:
- Preserving diminishing natural resources
- Less energy required
- Possibility of recycling
- Very long life span



Advantage of Production Quality Control Tests

- Pressure Pulsation Testing 1000 h Test
- Chemical Resistance Functions
- Temperature Cycling Test
- Cyclic Bending Test

Independently accredited test laboratory for components of plastic piping systems according to SN EN ISO 45001

for Professional Users

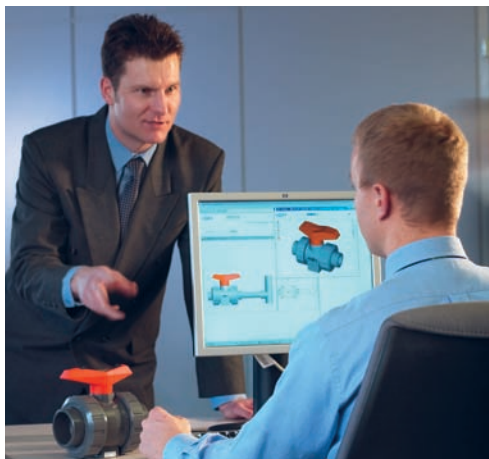
Advantage in Planning

One-stop-shopping for complete systems

Many customers prefer to purchase the complete piping system from one supplier. Because only systems that are designed to complement each other guarantee easy planning, installing and efficient functioning of the piping system.

CAD Product Library

For drawing and providing a list of orders GF Piping Systems CAD Product Library is an optimal solution. Can be used with AutoCAD and other CAD systems.



Advantage of Choosing the Right Material

For maximum safety and optimal durability of a piping system the choice of raw material and pressure class of the pipe parts is highly important. The raw material's suitability to the medium can be checked with the help of our chemical resistance list.



Advantage of Installation Technique

Cement jointing is simple, fast, economical and very reliable.

Over 100 million homogenous joints have been made over the total life time of piping systems, achieving the highest quality requirements.



Advantage of Support

Training

GF Piping Systems offers training possibilities at our regional sales companies, in our own training center in Schaffhausen or at your premises. For cement jointing we can also provide you with a training video.

Worldwide Distribution

Sales companies, representatives and dealers from GF Piping Systems can supply you with complete technical advice, punctual distribution and fast service in almost every corner of the world.



GF Piping Systems quality is no coincidence!

GF Piping Systems has not only taken a pioneering role in the past for the range of PVC fittings and equipment, but also in the sector of fusible plastics.

GF Piping Systems developed the socket fusion jointing process 30 years ago and

later also the electrofusion system for domestic installations and distribution.

The development and introduction of infrared fusion technology is more evidence of GF Piping Systems focus on developing new technologies for the customer's benefit.

GF Piping Systems product range in the field of fusible plastics

Jointing method	PROGEF Standard/Plus	PROGEF Natural	PE 100
Heating element socket fusion (HM)	X	X	X ¹
Heating element butt fusion (HS)	X	X	X
Infrared (IR-Plus®) fusion	X	X	X ²
Bead and crevice free (BCF) fusion		X	
Electrofusion with integral heating	X	X	X

¹ Socket fusion programme available in PE 80 ² in preparation for SDR 11

Selection and calculation basis

The use of PN to specify the pipe dimension, a practice commonly applied throughout the world, poses considerable danger of confusion for butt fusion.

We therefore recommend that dimension and wall thickness, in addition to ISO series or SDR, are always indicated.

	Formula	Example
SDR – S tandard D imension R atio	$SDR = d/e$	$SDR = 110/10 = 11$
Pipe series (S)	$SDR = 2S + 1$	$SDR = 2 \times 5 + 1 = 11$

d = Outside pipe diameter in mm

e = Wall thickness in mm

S = Pipe series

Pipes classified as SDR 7.25 can be fused trouble-free with pipes of the classification SDR 7.4. The same applies to the fusing

compatibility of pipes and fittings SDR 17 and SDR 17.6. The deviations are within the admissible tolerances.

Design factors and derived operating pressures

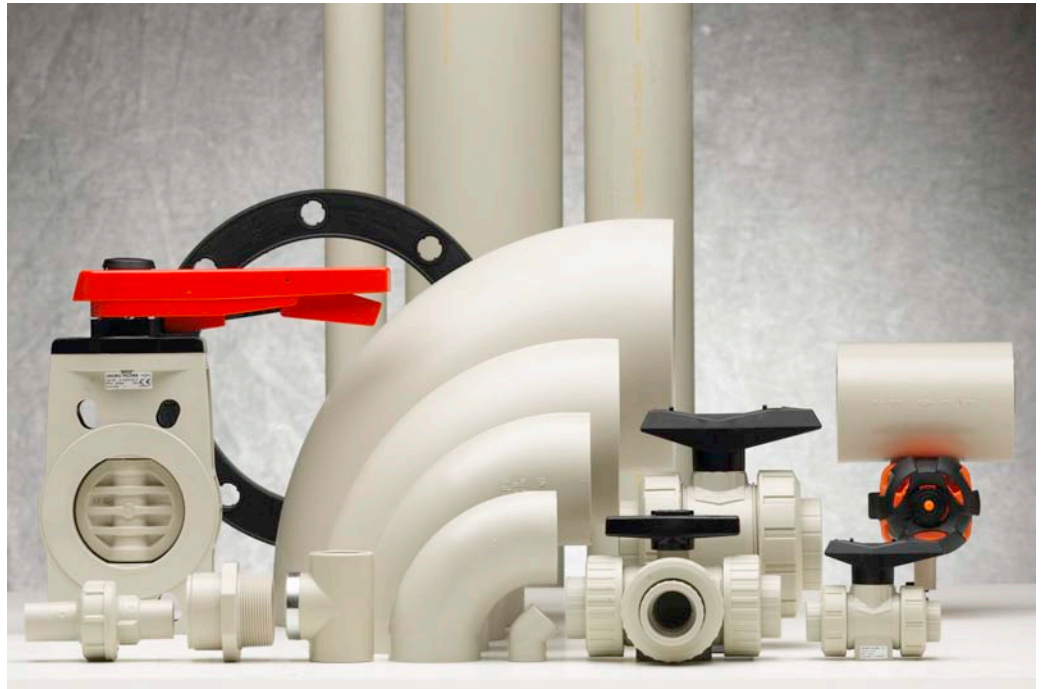
In various standards for PROGEF and PE we find design factors (formerly called safety factors) stated, these are for water. They are lower than the design factors recommended by GF Piping Systems for industrial applications. In order to protect human beings and the environment, those

safety factors can not be applied for industrial applications. We therefore recommend to use safety factors for PROGEF and PE 100 published in the following graphs, for the calculations of piping system pressures for industrial applications.

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PROGEF Standard



- Pipes
- Socket Fusion System
- Butt Fusion System

PROGEF® Standard

Pressure/temperature diagram for PP

PP-H

The following pressure/temperature diagrams for PP-H pipes and fittings are valid for a lifetime of 25 years.

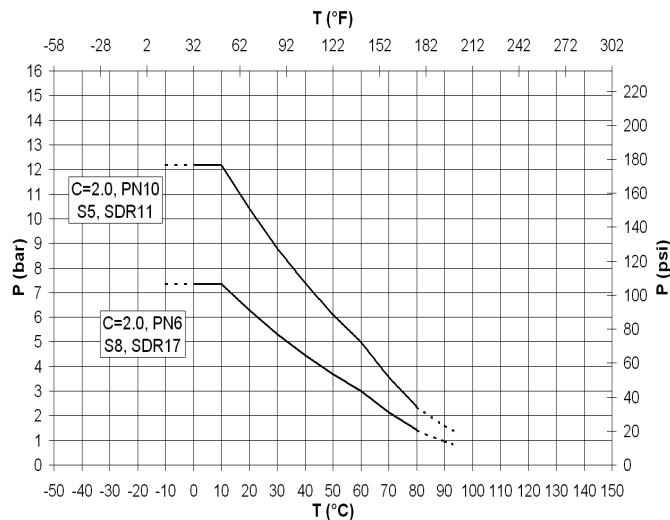
The design factor of 2.0 recommended by GF is incorporated.

They can be used for water or media resembling water, in other words, media which have no derating factor regarding the chemical resistance.

Remark: Please take into account the pressure/temperature diagrams for valves and special fittings. Because of the construction and/or sealing material used, differences are possible when compared with pipes and fittings. This information can be found in the planning fundamentals of the relevant types of valves, respectively special fittings.

According to the 10 °C line in the hydrostatic strength curve for PP-H, a permissible pressure of 12.2 bar / 7.4 bar in the temperature range of -10° to +10° C for the PN10 / PN6 system can be applied.

In case of applications with temperatures in the range of the dotted lines please contact your GF representative.



P Permissible pressure in bar, psi

T Temperature in °C, °F

PROGEF Standard – System Specification

Material	Beta PP-H 100 (Beta Polypropylene Homopolymer) d 16 - d 225	State-of-the-art PP (Polypropylene) d 250 - d 500
Colour	RAL 7032 pebble grey	RAL 7032 pebble grey
Density	~0.90 g/cm ³ (ISO 1183/ASTM D 792)	~0.90 g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	31 mJ/m ²	24 mJ/m ²
Linear expansion coefficient	0.16 mm/mK (DIN 53752)	0.16-0.18 mm/mK (DIN 53752)
E-modulus	1300 N/mm ² (ISO 527/ASTM D 790)	900 N/mm ² (ISO 527/ASTM D 790)
Thermal conductivity	0.23 W/mK (EN 12664)	0.23 W/mK (EN 12664)
Surface resistivity	> 10 ¹⁶ Ω (IEC 60093)	> 10 ¹⁶ Ω (IEC 60093)
Dimension	d 16 – d 500 in accordance to EN ISO 15494	
Pressure Rating	Pipes/Fittings/Diaphragm and ball valves: d 16 – d 225 SDR11, PN10, c=2.0 d 50 – d 225 SDR17.6, PN6, c=2.0 Butterfly valves: d 63–d 225, PN10 / d 280, PN8 / d 315, PN8	Pipes/Fittings: d 250 – d 500 SDR11, PN10, c=2.0 d 250 – d 500 SDR17.6, PN6, c=2.0
Temperature Rating	From 0°C to 80°C (32°F – 176°F)	
Production	Fittings: injection moulded or segment welded Pipes: extruded Valves: injection moulded	
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability: Lot No Material Dimension Pressure Rating	
Testing and Inspection (EN ISO 15494)	Visual inspection Surface finish Dimension tolerance Pressure testing Full product range passed the Initial Type Test (ITT)	
Material- and Product Approvals/Conformance⁽¹⁾	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic) DIBt (Z-40.23-4, Z-40.23-264, Z – 40.23-265) DNV (K-2630, K – 2636) Lloyd's Register (01/ 20030(E1))	
Welding Technology	Socket fusion (DVS 2207 - 11): d 16 - d 110 IR Plus, infrared fusion (DVS 2207 - 6): d 20 - d 225 Butt fusion (DVS 2207-11): d 20 - d 500	
Documentation⁽²⁾	EN 10204 2.2 / EN 10204 3.1	
Packing	Pipes and fittings bulk bagged	
Labeling	Brand Name Product Description Code Number Material Dimension CE-labeling ⁽³⁾ Approvals	
Main Applications	PROGEF has been relied to be highly resistant to impact, abrasion and many chemicals. Suitable for industrial applications in chemical production, chemical distribution, galvanisation and power stations.	

⁽¹⁾ For thermoplastic material only

⁽²⁾ On request

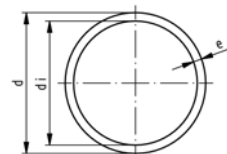
⁽³⁾ From 2008 on

PROGEF Standard Pipes, Fittings, Unions, Flanges and Flange Adaptors

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PP-H Pipes

67 48 07



PROGEF Standard pipe S5/SDR11 (PN10)

Model:

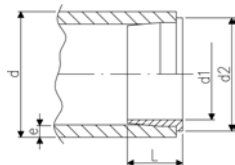
- Material: PP-H
- Dimension: DIN 8077
- Colour: RAL 7032 pebble grey
- Length: Lengths of 5 m

* In these two sizes, stiffeners Code No. 727 900 006 (20 x 1,9) ad 727 900 007 (25 x 2,3) must be used with socket fusion joints.

**Traded product, not +GF+ labelled

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
* 16	10	167 480 710	0.080	1.8	12.4
* 20	10	167 480 711	0.107	1.9	16.2
* 25	10	167 480 712	0.164	2.3	20.4
32	10	167 480 713	0.261	2.9	26.2
40	10	167 480 714	0.412	3.7	32.6
50	10	167 480 715	0.638	4.6	40.8
63	10	167 480 716	1.010	5.8	51.4
75	10	167 480 717	1.410	6.8	61.4
90	10	167 480 718	2.030	8.2	73.6
110	10	167 480 719	3.010	10.0	90.0
125	10	167 480 720	3.910	11.4	102.2
140	10	167 480 721	4.870	12.7	114.6
160	10	167 480 722	6.380	14.6	130.8
180	10	167 480 723	8.070	16.4	147.2
200	10	167 480 724	9.950	18.2	163.6
225	10	167 480 725	12.600	20.5	184.0
250	10	167 480 726	15.500	22.7	224.6
280	10	167 480 727	19.400	25.4	229.2
315	10	167 480 728	24.600	28.6	257.8
355	10	167 480 729	31.200	32.2	290.6
400	10	167 480 730	39.600	36.3	327.4
** 450	10	167 480 731	50.200	40.9	368.2
** 500	10	167 480 732	63.300	45.4	409.2

27 90 00



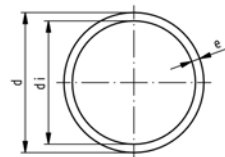
PROGEF Standard stiffener

Model:

- Material: PP-H
- Used as support during d20 and d25 socket fusion jointing to prevent the pipe from collapsing during the heating and jointing process.

d [mm]	e [mm]	Code	L [mm]	d1 [mm]	d2 [mm]
20	1,9	727 900 006	10	14	18
25	2,3	727 900 007	11	18	23

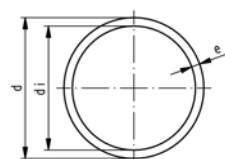
67 48 10

PROGEF Standard pipe S3.2/SDR7.4 (PN16)**Model:**

- Material: Polypropylene (PP-H) DIN 8078
- Dimension: DIN 8077
- Colour: RAL 7032 pebble grey
- Length: Lengths of 5 m
- for socket fusion without stiffeners

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
16	16	167 481 027	0.095	2.2	11.6
20	16	167 481 028	0.148	2.8	14.4
25	16	167 481 029	0.230	3.5	18.0

67 48 06

PROGEF Standard pipe S8.3/SDR17.6 (PN6)**Model:**

- Material: PP-H
- Dimension: DIN 8077
- Colour: RAL 7032 pebble grey
- Length: Lengths of 5 m

d [mm]	Code	kg/m	e [mm]	di [mm]
50	167 480 680	0.422	2.9	44.2
63	167 480 681	0.659	3.6	55.8
75	167 480 682	0.935	4.3	66.4
90	167 480 683	1.330	5.1	79.8
110	167 480 684	1.990	6.3	97.4
125	167 480 685	2.550	7.1	110.8
140	167 480 686	3.200	8.0	124.0
160	167 480 687	4.170	9.1	141.8
180	167 480 688	5.250	10.2	159.6
200	167 480 689	6.500	11.4	187.2
225	167 480 690	8.190	12.8	199.4
250	167 480 691	10.100	14.2	221.6
280	167 480 692	12.600	15.9	248.2
315	167 480 693	16.000	17.9	279.2
355	167 480 694	20.300	20.1	314.8
400	167 480 695	25.700	22.7	354.6
450	167 480 696	32.500	25.5	399.0
500	167 480 697	40.200	28.4	443.2

Butt fusion fittings

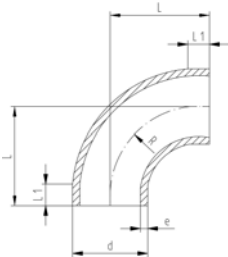
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PROGEF Standard bend 90° S5/SDR11

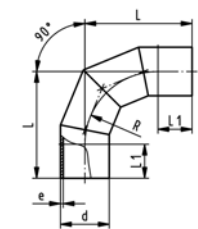
Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹ Material: PP-R



d [mm]	FM	Code	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
20	IR	727 018 606	0.007	38	23	15	1.9
25	IR	727 018 607	0.012	42	23	19	2.3
32	IR	727 018 608	0.021	46	22	24	2.9
40	IR	727 018 609	0.072	51	21	30	3.7
50	IR	727 018 610	0.063	58	21	37	4.6
63	IR	727 018 611	0.113	66	21	45	5.8
75	IR	727 018 612	0.229	100	20	90	6.8
90	IR	727 018 613	0.335	100	20	90	8.2
110	IR	727 018 614	0.607	141	25	130	10.0
125	IR	727 018 490	0.790	140	15	125	11.4
140	IR	727 018 491	1.080	155	15	140	12.7
160	IR	727 018 492	1.600	175	15	160	14.6
180	IR	727 018 493	2.600	195	15	180	16.4
200	IR	727 018 494	3.130	215	15	200	18.2
225	IR	727 018 495	4.230	262	20	225	20.5
250	--	727 018 521	6.450	256	48	232	22.7
280	--	727 018 522	9.500	286	48	262	25.4
315	--	727 018 523	12.800	321	48	297	28.6
¹ 355	--	727 018 574	19.400	380	15	355	32.2
¹ 400	--	727 018 575	28.500	435	25	400	36.3

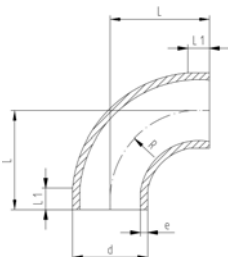


PROGEF Standard bend 90° S5/SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8

d [mm]	Code	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
450	727 018 576	55.400	975	300	675	40,9
500	727 018 577	77.400	1100	350	750	45,4



PROGEF Standard bend 90° S8.3/SDR17.6

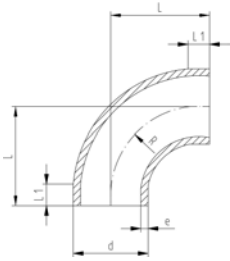
Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹ Material: PP-R

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
50	--	727 018 635	0.050	58	21	37	2.9
63	IR	727 018 636	0.081	66	21	45	3.6
75	IR	727 018 637	0.161	100	20	90	4.3
90	IR	727 018 638	0.229	100	20	90	5.1
110	IR	727 018 639	0.486	141	25	130	6.3
125	IR	727 018 440	0.590	140	15	125	7.1
140	IR	727 018 441	0.820	155	15	140	8.0
160	IR	727 018 442	1.200	175	15	160	9.1
180	IR	727 018 443	1.690	195	15	180	10.2

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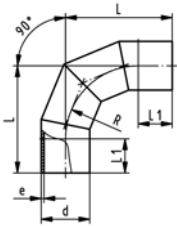
d [mm]	FM	Code	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
200	IR	727 018 444	2.300	215	15	200	11.4
225	IR	727 018 445	3.200	245	20	225	12.8
250	--	727 018 421	4.400	256	48	232	14.2
280	--	727 018 422	6.200	286	48	262	15.9
315	--	727 018 423	8.800	321	48	297	17.9
355	--	727 018 549	13.300	355	15	355	20.1
400	--	727 018 550	18.600	400	25	400	22.7



PROGEF Standard bend 90° S8.3/SDR17.6

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8



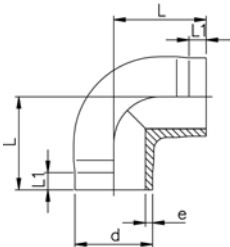
d [mm]	Code	kg	L [mm]	L1 [mm]	e [mm]	R [mm]
450	727 018 551	55.400	975	300	25,5	675
500	727 018 552	77.400	1100	350	28,4	750

27 10 85

PROGEF Standard elbow 90° S5/SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H



d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	727 108 506	0.007	38	25	1,9
25	IR	727 108 507	0.012	42	26	2,3
32	IR	727 108 508	0.022	46	27	2,9
40	IR	727 108 509	0.044	51	22	3,7
50	IR	727 108 510	0.077	58	23	4,6
63	IR	727 108 511	0.138	66	21	5,8

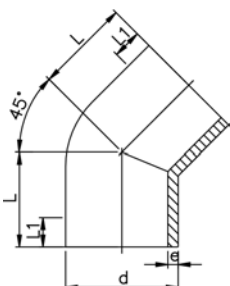
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PROGEF Standard elbow 45° S5/SDR11

Model:

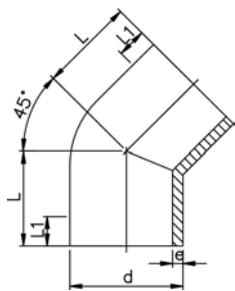
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Long version for d250, d280 and d315

¹ Material: PP-R



d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	727 158 506	0.006	32	24	1,9
25	IR	727 158 507	0.010	34	25	2,3
32	IR	727 158 508	0.020	36	25	2,9
40	IR	727 158 509	0.037	39	25	3,7
50	IR	727 158 510	0.054	42	26	4,6
63	IR	727 158 511	0.097	47	29	5,8
75	IR	727 158 512	0.135	49	29	6,8
90	IR	727 158 513	0.224	57	34	8,2
110	IR	727 158 514	0.415	70	43	10,0
125	IR	727 158 515	0.607	79	48	11,4
140	IR	727 158 516	0.860	88	55	12,7
160	IR	727 158 517	1.260	100	60	14,6

table continued next page



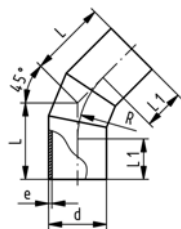
d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
200	IR	727 158 519	2.460	124	75	18,2
225	IR	727 158 520	3.400	140	85	20,5
1 250		727 158 521	7.890	225	133	22,7
1 280		727 158 522	10.170	235	143	25,4
1 315		727 158 523	11.690	255	154	28,6

27 15 85

PROGEF Standard bend 45° S5/SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8



d [mm]	Code	kg	L [mm]	L1 [mm]	e [mm]	R [mm]
355	727 158 524	32.300	520	300	32,2	532.5
400	727 158 525	43.200	548	300	36,3	600.0
450	727 158 526	57.700	580	300	40,9	675.0
500	727 158 527	87.200	665	350	45,4	750.0

27 15 85

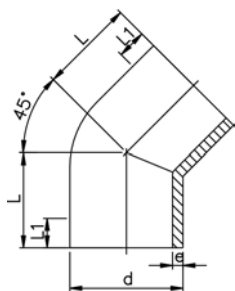
PROGEF Standard elbow 45° S8.3/SDR17.6

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹ Material: PP-R

*Machined from S5/SDR11

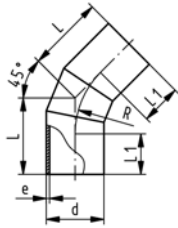


d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
* 50	--	727 158 535	0.042	42	26	2,9
* 63	IR	727 158 536	0.083	47	29	3,6
75	IR	727 158 412	0.099	49	29	4,8
90	IR	727 158 413	0.164	57	34	5,7
110	IR	727 158 414	0.296	70	43	6,9
* 125	IR	727 158 540	0.570	79	48	7,1
* 140	IR	727 158 541	0.825	88	55	8,0
* 160	IR	727 158 542	1.190	100	60	9,1
* 200	IR	727 158 544	2.300	124	75	11,4
* 225	IR	727 158 545	3.200	140	85	12,8
1 250		727 158 546	4.970	225	133	14,2
1 280		727 158 547	7.130	235	143	15,9
1 315		727 158 548	9.600	255	154	17,9

27 15 85

PROGEF Standard bend 45° S8.3/SDR17.6**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8

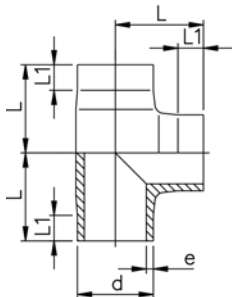


d [mm]	Code	kg	L [mm]	L1 [mm]	e [mm]	R [mm]
355	727 158 549	21.000	520	300	20,1	532.5
400	727 158 550	28.100	548	300	22,7	600.0
450	727 158 551	37.400	580	300	25,5	675.0
500	727 158 552	52.600	665	350	28,4	750.0

27 20 85

PROGEF Standard tee 90° equal S5/SDR11**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹ Material: PP-R

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	727 208 506	0.011	38	24	1,9
25	IR	727 208 507	0.018	42	26	2,3
32	IR	727 208 508	0.030	46	26	2,9
40	IR	727 208 509	0.059	51	22	3,7
50	IR	727 208 510	0.103	58	22	4,6
63	IR	727 208 511	0.200	66	21	5,8
75	IR	727 208 512	0.300	75	20	6,8
90	IR	727 208 513	0.530	90	20	8,2
110	IR	727 208 514	0.950	110	20	10,0
125	IR	727 208 515	1.400	125	25	11,4
140	IR	727 208 516	1.980	140	28	12,7
160	IR	727 208 517	2.900	160	28	14,6
180	IR	727 208 568	4.430	194	74	16,4
200	IR	727 208 519	5.570	200	35	18,2
225	IR	727 208 520	7.820	220	35	20,5
250	--	727 208 571	12.480	276	92	22,7
280	--	727 208 572	17.250	318	110	25,4
315	--	727 208 573	24.060	353	118	28,6
355	--	727 208 574	31.100	345	103	32,2
400	--	727 208 575	38.000	360	105	36,3
450	--	727 208 576	58.000	419	135	40,9
500	--	727 208 577	73.000	465	160	45,4

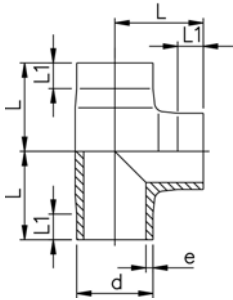
27 20 85

PROGEF Standard tee 90° equal S8.3/SDR17.6

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹ Material: PP-R



d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
50	--	727 208 535	0.090	59	26	2,9
63	IR	727 208 536	0.160	73	31	3,6
75	IR	727 208 412	0.230	75	20	4,8
90	IR	727 208 413	2.200	90	20	5,7
110	IR	727 208 414	0.723	110	20	6,9
125	IR	727 208 540	1.066	125	30	7,1
140	IR	727 208 541	1.449	140	35	8,0
160	IR	727 208 542	2.240	160	43	9,1
180	IR	727 208 543	3.090	194	70	10,2
200	IR	727 208 544	4.360	210	70	11,4
225	IR	727 208 545	6.030	235	82	12,8
250	--	727 208 546	8.610	276	92	14,2
280	--	727 208 547	11.660	318	110	15,9
315	--	727 208 548	16.230	353	118	17,9
¹ 355	--	727 208 549	21.000	345	103	20,1
¹ 400	--	727 208 550	26.000	360	105	22,7
450	--	727 208 551	44.400	419	135	25,5
500	--	727 208 552	60.284	476	165	28,4

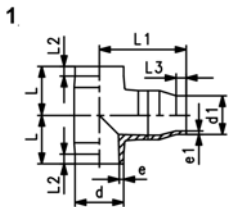
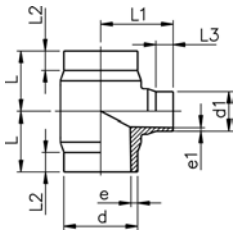
27 20 83

PROGEF Standard tee 90° reduced S5/SDR11

Model:

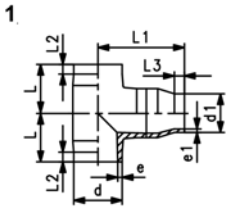
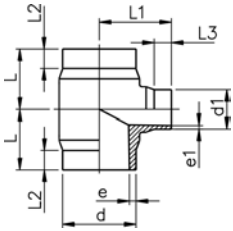
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹Production process: segment welded



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
63	32	IR	727 208 351	0.160	65	70	25	25	5,8	2,9
63	50	IR	727 208 352	0.170	65	70	25	25	5,8	4,6
75	32	IR	727 208 353	0.240	70	75	25	25	6,8	2,9
75	50	IR	727 208 354	0.250	70	75	25	25	6,8	4,6
75	63	IR	727 208 355	0.260	70	75	25	25	6,8	5,8
90	50	IR	727 208 357	0.410	80	85	25	25	8,2	4,6
90	63	IR	727 208 358	0.420	80	85	25	25	8,2	5,8
90	75	IR	727 208 359	0.440	80	85	25	25	8,2	6,8
110	32	IR	727 208 360	0.650	90	95	30	25	10	2,9
110	50	IR	727 208 361	0.670	90	95	30	25	10,0	4,6
110	63	IR	727 208 362	0.680	90	95	30	25	10,0	5,8
110	75	IR	727 208 363	0.690	90	95	30	25	10,0	6,8
110	90	IR	727 208 364	0.700	90	95	30	25	10,0	8,2
¹ 125	63	IR	727 208 365	1.680	125	232	25	16	11,4	5,8
¹ 125	90	IR	727 208 366	1.520	125	228	25	22	11,4	8,2
¹ 125	110	IR	727 208 367	1.700	125	220	25	30	11,4	10,0
¹ 140	75	IR	727 208 368	2.140	140	258	28	19	12,7	6,8
¹ 140	90	IR	727 208 369	2.150	140	250	28	22	12,7	8,2
¹ 140	110	IR	727 208 370	2.380	140	245	28	33	12,7	10,0
160	63	IR	727 208 371	2.125	142	135	50	30	14,6	5,8
160	75	IR	727 208 372	2.140	142	135	50	30	14,6	6,8
160	90	IR	727 208 373	2.160	142	135	50	30	14,6	8,2
160	110	IR	727 208 374	2.200	142	135	50	30	14,6	10,0
¹ 160	125	IR	727 208 375	0.000	160	279	28	32	14,6	11,4
¹ 200	160	IR	727 208 385	6.600	200	295	35	40	18,2	14,6
¹ 200	180	IR	727 208 386	6.200	200	345	35	45	18,2	16,4
225	90	IR	727 208 388	4.530	155	165	40	30	20,5	8,2

table continued next page



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
225	110	IR	727 208 389	4.520	155	165	40	30	20,5	10,0
225	160	IR	727 208 391	4.530	155	165	40	30	20,5	14,6
1250	160		727 208 393	4.530	276	424	92	55	22,7	14,6

27 20 83

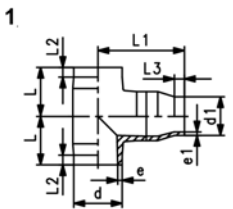
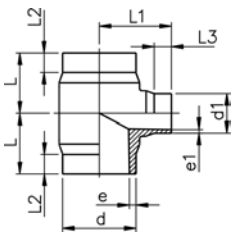
PROGEF Standard tee 90° reduced S8.3/SDR17.6

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹Production process: segment welded

* Branch SDR11



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
* 63	32	IR	727 208 301	0.120	65	70	25	25	3,6	2,9
63	50		727 208 302	0.125	65	70	25	25	3,6	2,9
* 75	32	IR	727 208 303	0.180	70	75	25	25	4,3	2,9
75	50		727 208 304	0.180	70	75	25	25	4,3	2,9
75	63	IR	727 208 305	0.190	70	75	25	25	4,3	3,6
90	50		727 208 307	0.310	80	85	25	25	5,1	2,9
90	63	IR	727 208 308	0.310	80	85	25	25	5,1	3,6
90	75	IR	727 208 309	0.320	80	85	25	25	5,1	4,3
* 110	32	IR	727 208 310	0.490	90	95	30	25	6,3	2,9
110	50		727 208 311	0.490	90	95	30	25	6,3	2,9
110	63	IR	727 208 312	0.500	90	95	30	25	6,3	3,6
110	75	IR	727 208 313	0.500	90	95	30	25	6,3	4,3
110	90	IR	727 208 314	0.510	90	95	30	25	6,3	5,1
160	63	IR	727 208 321	1.560	142	135	50	30	9,1	3,6
160	75	IR	727 208 322	1.570	142	135	50	30	9,1	4,3
160	90	IR	727 208 323	1.580	142	135	50	30	9,1	5,1
160	110	IR	727 208 324	1.600	142	135	50	30	9,1	6,3
225	90	IR	727 208 338	3.330	155	165	40	30	12,8	5,1
225	110	IR	727 208 339	3.310	155	165	40	30	12,8	6,3
225	160	IR	727 208 341	3.330	155	165	40	30	12,8	9,1

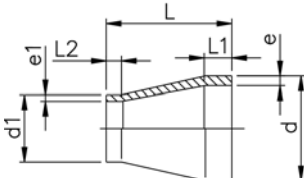
27 90 89

PROGEF Standard reducer S5/SDR11

Model:

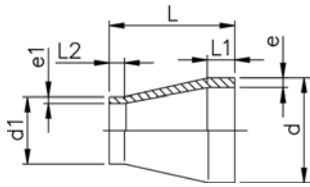
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

¹ Material: PP-R



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
25	20	IR	727 908 537	0.007	50	20	20	2,3	1,9
32	20	IR	727 908 542	0.010	50	20	20	2,9	1,9
32	25	IR	727 908 541	0.011	50	20	20	2,9	2,3
40	20	IR	727 908 548	0.015	58	20	23	3,7	1,9
40	25	IR	727 908 547	0.016	55	20	20	3,7	2,3
40	32	IR	727 908 546	0.019	55	20	20	3,7	2,9
50	25	IR	727 908 554	0.025	60	20	20	4,6	2,3
50	32	IR	727 908 553	0.027	60	20	20	4,6	2,9
50	40	IR	727 908 552	0.030	60	20	20	4,6	3,7
63	32	IR	727 908 560	0.043	65	20	20	5,8	2,9

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d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
63	40	IR	727 908 559	0.047	65	20	20	5,8	3,7
63	50	IR	727 908 558	0.052	65	20	20	5,8	4,6
75	40	IR	727 908 566	0.058	68	20	20	6,8	3,7
75	50	IR	727 908 565	0.065	65	20	20	6,8	4,6
75	63	IR	727 908 564	0.074	65	20	20	6,8	5,8
90	63	IR	727 908 571	0.107	75	22	19	8,2	5,8
90	75	IR	727 908 570	0.117	75	22	19	8,2	6,8
110	75	IR	727 908 577	0.193	90	28	18	10,0	6,8
110	90	IR	727 908 576	0.216	90	28	30	10,0	8,2
125	110	IR	727 908 580	0.325	100	32	30	11,4	10,0
140	110	IR	727 908 585	0.405	110	33	29	12,7	10,0
140	125	IR	727 908 584	0.447	110	34	30	12,7	11,4
160	110	IR	727 908 590	0.550	120	39	27	14,6	10,0
160	140	IR	727 908 588	0.625	120	40	35	14,6	12,7
180	90	IR	727 908 978	0.670	157	45	22	16,4	8,2
180	110	IR	727 908 977	0.550	157	45	28	16,4	10,0
180	125	IR	727 908 976	0.520	136	45	32	16,4	11,4
180	140	IR	727 908 975	0.520	136	45	35	16,4	12,7
180	160	IR	727 908 974	0.530	136	45	35	16,4	14,6
200	160	IR	727 908 592	1.120	145	50	40	18,2	14,6
200	180	IR	727 908 979	0.710	151	50	45	18,2	16,4
225	110	IR	727 908 595	1.330	160	55	35	20,5	10,0
225	160	IR	727 908 596	1.470	160	55	40	20,5	14,6
225	180	IR	727 908 983	0.941	171	55	45	20,5	16,4
225	200	IR	727 908 597	1.650	160	55	50	20,5	18,2
250	160	--	727 908 990	1.483	194	60	55	22,7	14,6
250	225	--	727 908 987	1.041	182	60	55	22,7	20,5
280	225	--	727 908 992	1.804	105	30	20	25,4	20,5
280	250	--	727 908 991	1.311	70	30	18	25,4	22,7
315	225	--	727 908 997	2.615	130	30	20	28,6	20,5
315	250	--	727 908 996	3.500	100	30	20	28,6	22,7
315	280	--	727 908 995	1.590	63	30	18	28,6	25,4
355	250	--	727 908 963	4.400	245	90	60	32,3	22,7
355	280	--	727 908 962	4.100	245	90	70	32,2	25,4
355	315	--	727 908 961	3.700	245	90	80	32,2	28,6
400	315	--	727 908 966	5.300	260	95	80	36,3	28,6
400	355	--	727 908 965	4.800	260	95	90	36,3	32,2
450	280	--	727 908 960	9.000	230	60	70	40,9	25,4
450	315	--	727 908 948	8.000	230	60	80	40,9	28,6
450	355	--	727 908 950	7.400	230	60	90	40,9	32,2
450	400	--	727 908 951	6.000	230	60	95	40,9	36,3
500	315	--	727 908 953	12.000	230	60	80	45,4	28,6
500	355	--	727 908 954	10.800	230	60	90	45,4	32,2
500	400	--	727 908 956	10.000	230	60	95	45,4	36,3
500	450	--	727 908 964	8.300	230	60	60	45,4	40,9

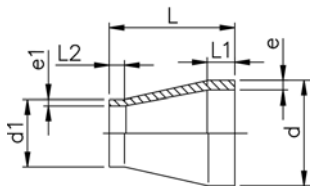
27 90 89

PROGEF Standard reducer S8.3/SDR17.6

Model:

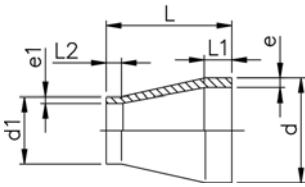
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

xx Material: PP-R



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
50	40	--	727 908 949	0.010	55	12	12	2,9	2,3
63	40	--	727 908 901	0.020	65	16	12	3,6	2,3
63	50	--	727 908 900	0.020	65	16	12	3,6	2,9
75	40	--	727 908 904	0.041	65	20	20	4,3	2,3
75	50	--	727 908 465	0.047	65	20	20	4,8	3,2
75	63	IR	727 908 464	0.053	65	20	20	4,8	4,0
90	63	IR	727 908 471	0.079	75	22	19	5,8	4,0
90	75	IR	727 908 470	0.089	75	21	19	5,7	4,8
110	75	IR	727 908 477	0.144	90	28	18	6,9	4,8
110	90	IR	727 908 476	0.158	90	28	20	6,9	5,7

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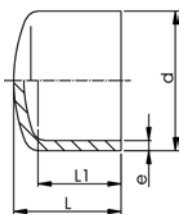
d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
125	110	IR	727 908 912	0.151	108	32	28	7,1	6,3
140	110	IR	727 908 917	0.144	115	35	28	8,0	6,3
140	125	IR	727 908 916	0.150	115	35	32	8,0	7,1
160	110	IR	727 908 922	0.287	124	40	28	9,1	6,3
160	140	IR	727 908 920	0.245	124	40	35	9,1	8,0
180	90	IR	727 908 928	0.440	157	45	22	10,2	5,1
180	110	IR	727 908 927	0.360	157	45	28	10,2	6,3
180	125	IR	727 908 926	0.340	136	45	32	10,2	7,1
180	140	IR	727 908 925	0.340	136	45	35	10,2	8,0
180	160	IR	727 908 924	0.350	136	45	40	10,2	9,1
200	160	IR	727 908 930	0.461	151	50	40	11,4	9,1
200	180	IR	727 908 929	0.600	151	50	45	11,4	10,2
225	110	IR	727 908 936	0.960	171	55	40	12,8	6,3
225	160	IR	727 908 934	0.620	171	55	45	12,8	9,1
225	180	IR	727 908 933	0.600	171	55	45	12,8	10,2
225	200	IR	727 908 932	0.614	184	60	40	12,8	11,4
250	160	--	727 908 940	0.975	194	60	40	14,2	9,1
250	225	--	727 908 937	0.681	182	60	55	14,2	12,8
xx 280	225	--	727 908 942	1.180	105	30	20	15,9	12,8
xx 280	250	--	727 908 941	0.858	70	30	18	15,9	14,2
xx 315	225	--	727 908 947	1.715	130	30	20	17,9	12,8
xx 315	250	--	727 908 946	1.446	100	30	20	17,9	14,2
xx 315	280	--	727 908 945	1.040	63	30	18	17,9	15,9
xx 355	250	--	727 908 959	3.000	245	90	60	20,1	14,2
xx 355	280	--	727 908 958	2.700	245	90	70	20,1	15,9
xx 355	315	--	727 908 957	2.400	245	90	80	20,1	17,9
xx 400	315	--	727 908 972	3.600	260	95	80	22,7	17,9
xx 400	355	--	727 908 971	3.100	260	95	90	22,7	20,1
450	280	--	727 908 967	6.000	230	60	70	25,5	15,9
450	315	--	727 908 984	5.400	230	60	80	25,5	17,9
450	355	--	727 908 988	5.000	230	60	90	25,5	20,1
450	400	--	727 908 989	5.000	230	60	95	25,5	22,7
500	315	--	727 908 993	8.100	230	60	80	28,4	17,9
500	355	--	727 908 994	7.300	230	60	95	28,4	20,1
500	400	--	727 908 998	6.700	230	60	95	28,4	22,7
500	450	--	727 908 999	5.500	230	60	60	28,4	25,5

27 96 89

PROGEF Standard end cap S5/SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H



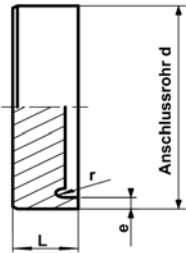
d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	727 968 931	0.004	42	30	1,9
25	IR	727 968 932	0.005	50	35	2,3
32	IR	727 968 933	0.010	55	40	2,9
40	IR	727 968 934	0.018	65	45	3,7
50	IR	727 968 935	0.029	70	50	4,6
63	IR	727 968 936	0.049	80	55	5,8
75	IR	727 968 937	0.065	90	60	6,8
90	IR	727 968 938	0.107	105	70	8,2
110	IR	727 968 939	0.174	120	80	10,0
125	IR	727 968 940	0.210	50	25	11,4
140	IR	727 968 941	0.323	60	30	12,7
160	IR	727 968 942	0.570	76	40	14,6
180	IR	727 968 943	1.580	125	88	16,4
200	IR	727 968 944	1.060	100	50	18,2
225	IR	727 968 945	1.710	103	60	20,5

27 96 89

PROGEF Standard end cap S5/SDR11**Model:**

- Machined
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11

d [mm]	Code	kg	L [mm]	e [mm]
250	727 968 846	1.900	60	22,7
280	727 968 847	2.600	65	25,4
315	727 968 848	1.633	70	28,6
355	727 968 849	2.313	80	32,2
400	727 968 850	3.266	85	36,3
450	727 968 851	4.627	95	40,9
500	727 968 852	6.350	105	74,5

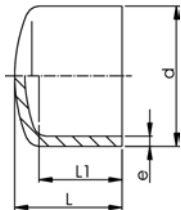


27 96 89

PROGEF Standard end cap S8.3/SDR17.6**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
50	--	727 968 910	0.030	75	53	2,9
63	IR	727 968 911	0.050	85	58	3,6
75	IR	727 968 912	0.045	90	60	4,3
90	IR	727 968 913	0.073	105	70	5,1
110	IR	727 968 914	0.118	120	80	6,3
125	IR	727 968 915	0.176	50	25	7,1
140	IR	727 968 916	0.194	60	30	8,0
160	IR	727 968 917	0.408	76	40	9,1
180	IR	727 968 918	1.580	125	88	10,2
200	IR	727 968 919	0.730	100	50	11,4
225	IR	727 968 920	0.965	103	60	12,8

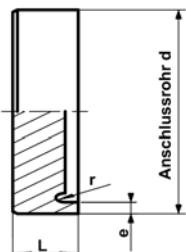


27 96 89

PROGEF Standard end cap S8.3/SDR17.6**Model:**

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- Machined

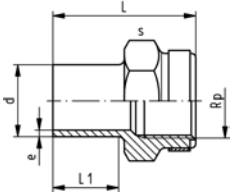
d [mm]	Code	kg	L [mm]	e [mm]
250	727 968 821		55	14,2
280	727 968 822		60	15,9
315	727 968 823		65	17,9
355	727 968 824		70	20,1
400	727 968 825		75	22,7
450	727 968 826	10.000	85	25,5
500	727 968 827	10.000	90	28,3



Adaptor fittings for butt fusion

27 91 02

PROGEF Standard adaptor socket metric Rp



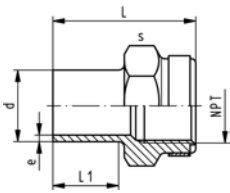
Model:

- Material: PP-H
- With butt fusion spigot **SDR11** and BSP parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	½	10	IR	727 910 266	0.017	49	23	32	1,9
25	¾	10	IR	727 910 267	0.022	50	23	36	2,3
32	1	10	IR	727 910 268	0.038	54	23	46	2,9
40	1 ¼	10	IR	727 910 269	0.066	56	23	55	3,7
50	1 ½	10	IR	727 910 270	0.090	60	23	65	4,6
63	2	10	IR	727 910 271	0.140	62	23	80	5,8

27 91 43

PROGEF Standard adaptor socket metric NPT



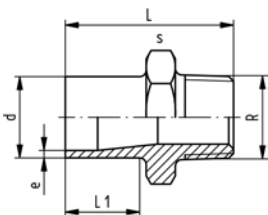
Model:

- Material: PP-H
- With butt fusion spigot **SDR11** and NPT tapered female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	½	10	IR	727 914 356	0.017	49	23	32	1,9
25	¾	10	IR	727 914 357	0.022	51	23	36	2,3
32	1	10	IR	727 914 358	0.039	54	23	46	2,9
40	1 ¼	10	IR	727 914 359	0.066	56	23	55	3,7
50	1 ½	10	IR	727 914 360	0.085	60	23	65	4,6
63	2	10	IR	727 914 361	0.122	62	23	80	5,8

27 91 05

PROGEF Standard adaptor nipple metric R

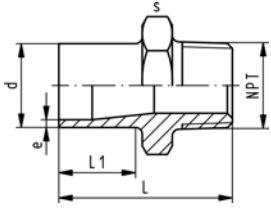


Model:

- Material: PP-H
- With butt fusion spigot and BSP tapered male thread
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	½	10	IR	727 910 556	0.013	51	23	32	1,9
25	¾	10	IR	727 910 557	0.026	52	23	36	2,3
32	1	10	IR	727 910 558	0.028	55	23	46	2,9
40	1 ¼	10	IR	727 910 559	0.041	58	23	55	3,7
50	1 ½	10	IR	727 910 560	0.062	60	23	65	4,6
63	2	10	IR	727 910 561	0.096	67	26	80	5,8

27 91 46



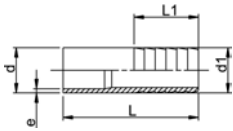
PROGEF Standard adaptor nipple metric NPT

Model:

- Material: PP-H
- With butt fusion spigot **SDR11** and NPT tapered male thread
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	1/2	10	IR	727 914 656	0.013	51	23	32	1,9
25	3/4	10	IR	727 914 657	0.026	52	23	36	2,3
32	1	10	IR	727 914 658	0.028	55	23	46	2,9
40	1 1/4	10	IR	727 914 659	0.041	58	24	55	3,7
50	1 1/2	10	IR	727 914 660	0.062	60	23	65	4,6
63	2	10	IR	727 914 661	0.096	67	26	80	5,8

27 96 86



PROGEF Standard hose connector metric

Model:

- Material: PP-H
- With butt fusion spigot **SDR11** and parallel hose connection

d [mm]	d1 [mm]	PN	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	20	10	IR	727 968 606	0.008	64	27	1,9
25	25	10	IR	727 968 607	0.012	75	36	2,3
32	32	10	IR	727 968 608	0.022	82	36	2,9
40	40	10	IR	727 968 609	0.030	84	42	3,7
50	50	10	IR	727 968 610	0.060	90	48	4,6
63	60	10	IR	727 968 611	0.095	100	50	5,8

Sensor installation fittings

27 31 10

PROGEF Standard installation fitting type 311



Model:

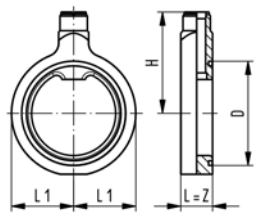
- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Suitable for backing flanges metric and inch
- Suitable for SDR 11 - SDR 17.6
- Delivered with profile O-ring

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

Attention:

- sensor length depends on installation fitting



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	H [mm]	L [mm]	L1 [mm]	Sensor Type
75	65	16	727 311 012	727 311 042	0.460	88	133	48	61	flow X1
90	80	16	727 311 013	727 311 043	0.542	102	140	48	69	flow X1
110	100	16	727 311 014	727 311 044	0.668	132	149	48	79	flow X1
125	100	16	727 311 015	727 311 045	0.595	132	144	48	79	flow X1
140	125	16	727 311 016	727 311 046	0.842	157	149	48	94	flow X1
160	150	16	727 311 017	727 311 047	1.023	182	156	48	106	flow X1
180	150	16	727 311 018	727 311 048	0.868	182	163	48	106	flow X1
200	200	16	727 311 019	727 311 049	1.578	236	170	48	134	flow X1
225	200	16	727 311 020	727 311 050	1.332	236	178	48	134	flow X1
250	250	16	727 311 021	727 311 051	2.209	289	263	48	160	flow X2
280	250	16	727 311 022	727 311 052	1.836	289	273	48	160	flow X2
315	300	16	727 311 023	727 311 053	2.495	329	285	48	185	flow X2

27 31 20

PROGEF Standard installation fitting type 312 metric



Model:

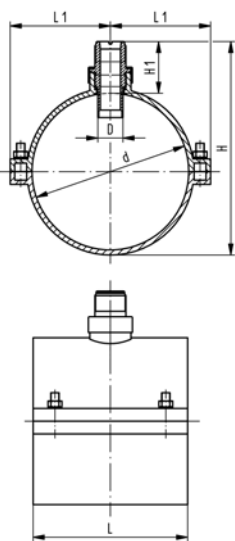
- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Top saddle with EPDM gasket
- Stainless steel bolts and nuts

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512

Attention:

- sensor length depends on installation fitting



d [mm]	DN [mm]	PN	Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	Sensor Type
75	65	8	727 312 072	0.458	34	78	62	172	88	flow X1
90	80	8	727 312 073	0.514	34	86	69	186	87	flow X1
110	100	8	727 312 074	0.598	34	98	79	206	86	flow X1
125	100	8	727 312 075	0.667	34	101	85	212	78	flow X1
140	125	6	727 312 076	0.911	34	114	104	227	75	flow X1
160	150	6	727 312 077	0.985	34	114	114	243	72	flow X1
180	150	6	727 312 078	2.085	34	168	134	348	144	flow X2
200	200	6	727 312 079	2.045	34	168	132	357	142	flow X2
225	200	5	727 312 080	2.142	34	174	146	375	136	flow X2
250	250	5	727 312 081	2.566	34	179	159	397	131	flow X2
280	250	5	727 312 082	3.594	34	179	167	426	127	flow X2
315	300	5	727 312 083	4.250	34	248	202	450	120	flow X2



PROGEF Standard installation fitting type 314



Model:

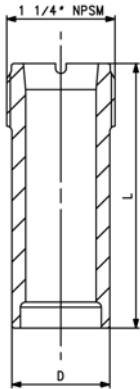
- Material: PP-H
- Threaded outlet 1 1/4" NPSM
- for conventional hot gas back welding according to DVS 2207 part 3

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

- only for pressureless or low pressure application
- pressure rate depends on quality of hot gas back welding
- please consult the instruction manual
- Installation by trained and certified welders only
- sensor length depends on installation fitting



d [mm]	DN	PN* [bar]	Code	kg	D [mm]	L [mm]	Sensor Type
75 - 180	65 - 150	-	727 314 000	3.540	37.5	68	flow X0, pH XX
200 - 355	200 - 350	-	727 314 001	5.160	37.5	102	flow X1
400 - 630	350 - 600	-	727 314 002	8.854	37.5	178	flow X2

27 31 80



PROGEF Standard installation fitting type 318 S5/SDR11 for butt fusion systems metric

Model:

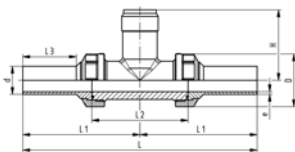
- Material: PP-H
- Threaded outlet 1 1/4" NPSM
- Union end with butt fusion spigot PP-H

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

- sensor length depends on installation fitting

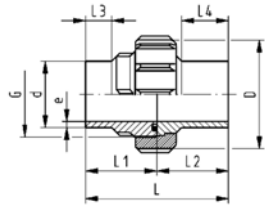


d [mm]	DN [mm]	PN	FM	EPDM Code	FPM Code	kg
20	15	10	IR	727 318 006	727 318 036	0.136
25	20	10	IR	727 318 007	727 318 037	0.190
32	25	10	IR	727 318 008	727 318 038	0.250
40	32	10	IR	727 318 009	727 318 039	0.356
50	40	10	IR	727 318 010	727 318 040	0.510
63	50	10	IR	727 318 011	727 318 041	0.800

d [mm]	e [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	Sensor Type
20	1.9	48	224	112	90	52	76	flow X0, pH XX
25	2.3	58	242	121	100	53	78	flow X0, pH XX
32	2.9	65	256	128	110	55	81	flow X0, pH XX
40	3.7	79	272	136	110	60	85	flow X0, pH XX
50	4.6	91	294	147	120	66	89	flow X0, pH XX
63	5.8	105	316	158	130	70	95	flow X0, pH XX

Unions for butt fusion

EPDM 27 51 85
FPM 27 52 85



PROGEF Standard union S5/SDR11

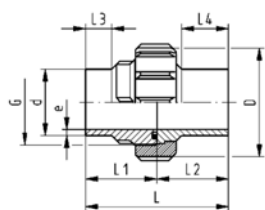
Model:

- Material: PP-H
- With butt fusion ends
- Conventional butt fusion and (IR Plus®) compatible
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	FM	EPDM Code	FPM Code	kg
20	10	IR	727 518 506	727 528 506	0.046
25	10	IR	727 518 507	727 528 507	0.074
32	10	IR	727 518 508	727 528 508	0.102
40	10	IR	727 518 509	727 528 509	0.169
50	10	IR	727 518 510	727 528 510	0.227
63	10	IR	727 518 511	727 528 511	0.382
75	10	IR	727 518 512	727 528 512	0.560
90	10	IR	727 518 513	727 528 513	0.588
110	10	IR	727 518 514	727 528 514	0.828

d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	e [mm]
20	48	1	107	54.0	53.0	13	26	1,9
25	58	1 1/4	113	57.0	56.0	12	26	2,3
32	65	1 1/2	119	60.0	59.0	14	26	2,9
40	79	2	126	63.0	63.0	16	26	3,7
50	91	2 1/4	131	65.5	65.5	19	26	4,6
63	111	2 3/4	137	69.0	68.0	20	26	5,8
75	135	S107,5x3,6	131	66.0	65.5	22	24	6,8
90	135	S107,5x3,6	131	65.5	65.5	22	24	8,2
110	158	S127,5x3,6	131	65.5	65.5	22	25	10,0

EPDM 27 51 84
FPM 27 52 84



PROGEF Standard union S8.3/SDR17.6

Model:

- Material: PP-H
- With butt fusion ends
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- Jointing face: With O-ring groove
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	FM	EPDM Code	FPM Code	kg
75	6	IR	727 518 412	727 528 412	0.476
90	6	IR	727 518 413	727 528 413	0.483
110	6	IR	727 518 414	727 528 414	0.663

d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
75	135	S107,5x3,6	132	66.0	66.0	4,3
90	135	S107,5x3,6	131	65.5	65.5	5,1
110	158	S127,5x3,6	131	65.5	65.5	6,3

Instructions for the installation of unions in PP, PE d 75, d 90 and d 110

The newest generation of plastic unions in the above materials and dimensions has been fitted with a state-of-the-art, plastics-oriented buttress thread. You therefore have a product in which the nominal pressure and the safety reserve have been dramatically increased. Also new are the butt fusion versions. In this connection, there are a few points which you must be aware of.

Caution



- ① The threads of the union nut and bush have been reworked for PP, PVDF and PE! When using individual parts, please check prior to installation if the threads of the union bush and the union nut coincide.

Union bush with trapezoid thread on union nut with trapezoid thread
or
Union bush with buttress thread on union nut with buttress thread

Tip

To make installation of the union easier, wet the union nut.

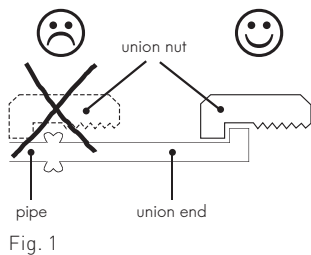


Fig. 1

- ② For the dimensions d90 and d 110 we advise fusing the complete union, if possible (or slide the union nut to the collar of the union end) because after fusion the union nut cannot be slid over the fusion bead. (Fig. 1)

- ③ For design reasons, it is theoretically possible to combine different nominal diameters of union ends and nuts. To make sure combinations are technically correct, you can find the code numbers of the single parts and spare parts for each union in the Tables 1-3.

Caution

Only use union bushes and union ends with the same nominal diameter!

A butt fusion union bush d 75 may not be combined with a butt fusion union end d 90 to form a reducer because this can cause leakage, as illustrated to the left. (Fig. 2)

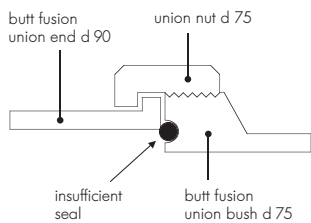


Fig. 2

Markings on the union nuts

SF/MS = socket fusion, BF/ST = butt fusion

SF/MS 75 specified for socket fusion d 75
BF/ST 75-90 specified for butt fusion d 75-75 and d 90-90

SF/MS 90 specified socket fusion d 90
BF/ST 110 specified butt fusion d 110

110 specified for socket fusion d 110

Tip

We recommend changing materials only for the union end for installation reasons.

Selection tables for single parts and spare parts



Butt fusion

Socket fusion

Table 1

Single parts for **PP-H** unions d75, d90 and d110

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75	=		11	10	727 608 512	727 648 512	727 690 422
			17.6	6	727 608 412	727 648 412	727 690 422
			—	10	727 600 112	727 640 172	727 690 422
90	=		11	10	727 608 513	727 648 513	727 690 422
			17.6	6	727 608 413	727 648 413	727 690 422
			—	10	727 600 113	727 640 173	727 690 423
110	=		11	10	727 608 514	727 648 514	727 690 423
			17.6	6	727 608 414	727 648 414	727 690 423
			—	10	727 600 114	727 640 174	727 690 424

Table 2

Single parts for **PE 100** unions d75, d90 and d110

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75	=		11	10	753 608 612	753 648 612	727 690 442
			17.6	10	753 608 412	753 648 412	727 690 442
90	=		11	10	753 608 613	753 648 613	727 690 442
			17.6	10	753 608 413	753 648 413	727 690 442
110	=		11	10	753 608 614	753 648 614	727 690 443
			17.6	10	753 608 414	753 648 414	727 690 443

Table 3

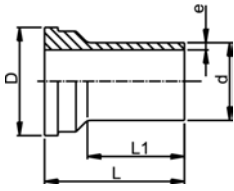
O-Rings for PP-H, PE 100

d	BF/ST	SF/MS	SDR	PN	Code O-Ring EPDM ¹	Code O-Ring FPM ¹
75	=			16	748 410 013	749 410 013
				16	748 410 014	749 410 014
90	=			16	748 410 014	749 410 014
				16	748 410 015	749 410 015
110	=			16	748 410 015	749 410 015
				16	748 410 016	749 410 016

* Union nuts overlap several dimensions

¹ Flange adaptor O-rings, one size smaller in nominal dimensions, are used for the d75–110 butt-fusion unions

27 60 85



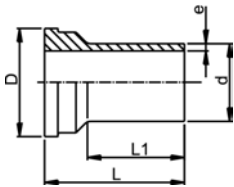
PROGEF Standard union end IR plus SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	10	IR	727 608 506	0.010	30	54	38	1,9
25	10	IR	727 608 507	0.017	39	57	42	2,3
32	10	IR	727 608 508	0.024	45	60	41	2,9
40	10	IR	727 608 509	0.041	57	63	42	3,7
50	10	IR	727 608 510	0.054	63	66	44	4,6
63	10	IR	727 608 511	0.092	78	69	45	5,8
75	10	IR	727 608 512	0.146	101	66	34	6,8
90	10	IR	727 608 513	0.158	101	66	45	8,2
110	10	IR	727 608 514	0.233	121	66	40	10,0

27 60 84



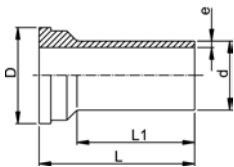
PROGEF Standard union end IR plus SDR17.6

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
75	6	IR	727 608 412	0.114	101	66	34	4,3
90	6	IR	727 608 413	0.116	101	66	45	5,1
110	6	IR	727 608 414	0.165	121	66	40	6,3

27 60 85



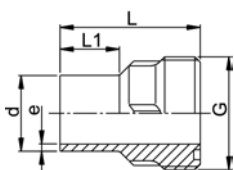
PROGEF Standard union end long SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Spigot for electro fusion
- Suitable for unions, diaphragm valves Type 314 and Vortex sensors

d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	10	IR	727 608 516	0.010	30	67	52	1,9
25	10	IR	727 608 517	0.018	39	71	53	2,3
32	10	IR	727 608 518	0.024	45	73	55	2,9
40	10	IR	727 608 519	0.041	57	81	60	3,7
50	10	IR	727 608 520	0.054	63	87	66	4,6
63	10	IR	727 608 521	0.114	78	93	70	5,8

27 64 85



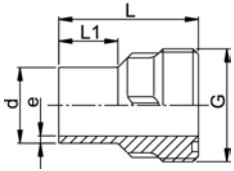
PROGEF Standard union bush SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Spigot for electro fusion

d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]
20	10	IR	727 648 506	0.012		1	54	26
25	10	IR	727 648 507	0.020		1 1/4	57	26
32	10	IR	727 648 508	0.029		1 1/2	60	25
40	10	IR	727 648 509	0.047		2	63	25
50	10	IR	727 648 510	0.064		2 1/4	66	25
63	10	IR	727 648 511	0.104		2 3/4	69	25

table continued next page

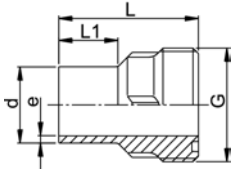


d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]
75	10	IR	727 648 512	0.172	S107.5x3.6	66	24	6,8
90	10	IR	727 648 513	0.182	S107.5x3.6	66	24	8,2
110	10	IR	727 648 514	0.258	S127.5x3.6	66	25	10,0

Union Bushes, PP-H SDR17,6

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- **For the dimensions d75-110 please see instructions for the installation**



d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]
75	6	IR	727 648 412	0.152	S127.5x3.6	65.5	24	4.3
90	6	IR	727 648 413	0.154	S107.5x3.6	66.0	24	5.1
110	6	IR	727 648 414	0.207	S127.5x3.6	66.0	24	6.3

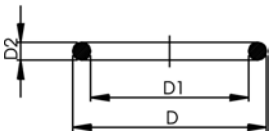
EPDM 48 41 00
FPM 49 41 00

O-Ring gasket

Model:

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FPM minimum temperature -15°C

* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

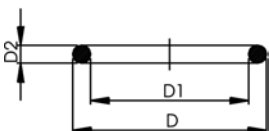


d [mm]	DN [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
10 - 12	8	748 410 004	749 410 004	0.002	18	12	2.62
16	10	748 410 005	749 410 005	0.002	21	16	2.62
20	15	748 410 006	749 410 006	0.002	27	20	3.53
25	20	748 410 007	749 410 007	0.002	35	28	3.53
32	25	748 410 008	749 410 008	0.002	40	33	3.53
40	32	748 410 009	749 410 009	0.006	51	41	5.34
50	40	748 410 010	749 410 010	0.007	58	47	5.34
63	50	748 410 011	749 410 011	0.010	70	60	5.34
75	65	748 410 014	749 410 014	0.012	93	82	5.34
90	80	748 410 015	749 410 015	0.015	112	101	5.34
* 90	80	748 410 248	749 410 248	0.020	105	95	5.34
110	100	748 410 016	749 410 016	0.031	134	120	6.99

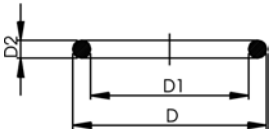
O-Ring Gasket, FPM black

Model:

- for unions PP-H, PE100 and PVDF butt fusion
- d75 748 410 013 (EPDM), 749 410 013 (FPM)
- d90 748 410 014 (EPDM), 749 410 014 (FPM)
- d110 748 410 015 (EPDM), 749 410 015 (FPM)



EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
748 410 013	749 410 013	0.011	80		
748 410 014	749 410 014	0.012	93		
748 410 015	749 410 015	0.015	112		



O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 75° Shore
- FFPM minimum temperature -20°C

d [mm]	DN [mm]	FFPM Code	kg	D [mm]	D1 [mm]	D2 [mm]	
20	15	700 245 481	0.002	27	20	4	
25	20	700 245 482	0.002	35	28	4	
32	25	700 245 483	0.002	40	33	4	
40	32	700 245 484	0.006	51	41	5	
50	40	700 245 485	0.007	58	47	5	
63	50	700 245 486	0.010	70	60	5	

Flange Adaptors, Flanges and Gaskets for Butt Fusion

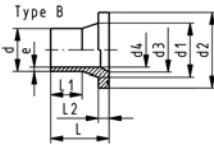
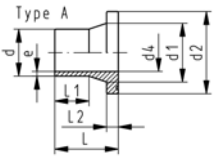
27 79 87

PROGEF Standard flange adaptor S5/SDR11 Combined jointing face: flat and serrated

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d315, suitable for butterfly valve type 567,568 and 037
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07

* Type B with chamfer



d [mm]	DN [mm]	FM	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	IR	727 798 706	0.015	26	45		16	50	29	7	1.9
25	20	IR	727 798 707	0.028	32	58		20	52	27	9	2.3
32	25	IR	727 798 708	0.042	40	68		26	54	28	10	2.9
40	32	IR	727 798 709	0.064	49	78		32	56	25	11	3.7
50	40	IR	727 798 710	0.088	60	88		40	62	32	12	4.6
63	50	IR	727 798 711	0.144	75	102		51	68	38	14	5.8
* 75	65	IR	727 798 712	0.243	89	122	66	61	80	43	16	6.9
* 90	80	IR	727 798 713	0.326	105	138	78	73	80	41	17	8.2
* 110	100	IR	727 798 714	0.441	125	158	100	90	80	40	18	10.0
* 125	100	IR	727 798 715	0.520	132	158	114	102	82	35	25	11.4
* 140	125	IR	727 798 716	0.800	155	188	127	114	89	39	25	12.8
* 160	150	IR	727 798 717	0.920	175	212	151	131	92	45	25	14.6
* 180	150	IR	727 798 718	0.900	180	212	154	147	80	45	30	16.4
* 200	200	IR	727 798 719	1.670	232	268	203	163	100	30	32	18.2
* 225	200	IR	727 798 720	1.700	235	268	210	184	100	35	32	20.5
* 250	250		727 798 721	2.790	285	320	250	204	100	25	35	22.7
* 280	250		727 798 722	2.610	291	320	265	229	100	35	35	25.4
* 315	300		727 798 723	3.410	335	370	300	257	100	25	35	28.6
* 355	350		727 798 724	5.600	373	430	340	290	180	40	40	32.2
* 400	400		727 798 725	8.300	427	482	385	327	187	46	46	36.3
* 450	400		727 798 726	13.000	514	585	400	368	141	64	60	40.9
* 500	450		727 798 727	13.000	530	587	440	409	138	62	61	45.4

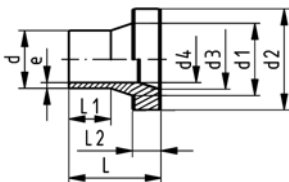
PROGEF Standard adaptor for butterfly valves SDR11 Jointing face flat, metric



Model:

- Material: PP-R
- Conventional butt-welding according to DVS 2207 part 11
- Suitable for most common butterfly valves
- Chamfered and ready for use

Max pressure rating: 10 bar at 20°C water



d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
355	350	727 798 624	3.540	373	430	346	312	180	90	65	32.2
400	400	727 798 625	4.562	427	482	404	352	196	95	69	36.3
450	450	727 798 626	6.100	459	533	460	396	195	60	90	40.9
500	500	727 798 627	6.804	530	585	500	440	144	60	47	45.4

PROGEF Standard flange adaptor S5/SDR11

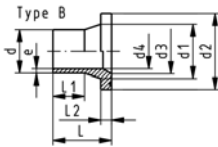
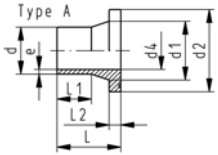
Combined jointing face: flat and serrated

Model:

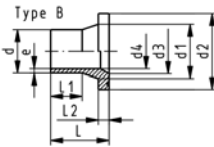
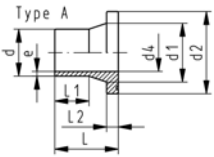
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Suitable for flange connections to **ANSI/ASME B 16.5**
- Up to d315, suitable for butterfly valve type 567,568 and 037
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07

* Type B with chamfer

d [mm]	DN [mm]	FM	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	IR	727 798 706	0.015	26	45		16	50	29	7	1.9
25	20	IR	727 798 757	0.025	33	54		20	52	41	9	2.3
32	25	IR	727 798 758	0.039	40	63		26	54	44	10	3.0
40	32	IR	727 798 759	0.058	50	73		32	56	49	11	3.7
50	40	IR	727 798 760	0.082	61	82		40	62	55	12	4.6
63	50	IR	727 798 711	0.144	75	102		51	68	38	14	5.8
* 75	65	IR	727 798 712	0.243	89	122	66	61	80	43	16	6.9
* 90	80	IR	727 798 763	0.297	105	133	78	73	80	85	17	8.2
* 110	100	IR	727 798 714	0.441	125	158	100	90	80	40	18	10.0
* 125	100	IR	727 798 715	0.520	132	158	114	102	82	35	25	11.4
* 140	125	IR	727 798 716	0.800	155	188	127	114	89	39	25	12.8
* 160	150	IR	727 798 717	0.920	175	212	151	131	92	45	25	14.6
* 180	150	IR	727 798 718	0.900	180	212	154	147	80	45	30	16.4
* 200	200	IR	727 798 719	1.670	232	268	203	163	100	30	32	18.2
* 225	200	IR	727 798 720	1.700	235	268	210	184	100	35	32	20.5
* 250	250		727 798 721	2.790	285	320	250	204	100	25	35	22.7
* 280	250		727 798 722	2.610	291	320	265	229	100	35	35	25.4
* 315	300		727 798 723	3.410	335	370	300	257	100	25	35	28.6
* 355	350		727 798 724	5.600	373	430	340	290	180	40	40	32.2
* 400	400		727 798 725	8.300	427	482	385	327	187	46	46	36.3



PROGEF Standard flange adaptor S8.3/SDR17.6 Combined jointing face: flat and serrated



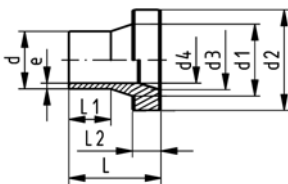
Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d315, suitable for butterfly valve type 567,568 and 037
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07

* Type B with chamfer

d [mm]	DN [mm]	FM	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
50	40		727 798 785	0.070	61	88		42	50	21	12	2.9
63	50	IR	727 798 786	0.100	75	102		53	50	16	14	3.6
75	65	IR	727 798 787	0.203	89	122		65	80	43	16	4.3
90	80	IR	727 798 788	0.273	105	138		78	80	41	17	5.1
110	100	IR	727 798 789	0.363	125	158		96	80	40	18	6.3
* 125	100	IR	727 798 790	0.335	132	158	114	107	80	42	18	7.4
* 140	125	IR	727 798 791	0.499	155	188	127	120	80	34	18	8.0
* 160	150	IR	727 798 792	0.770	175	212	158	142	92	45	25	9.1
180	150	IR	727 798 793	0.630	180	212		156	80	30	20	10.2
* 200	200	IR	727 798 794	1.380	232	268	203	177	100	30	32	11.4
* 225	200	IR	727 798 795	1.350	235	268	210	199	100	35	32	12.8
* 250	250		727 798 796	1.800	285	320	250	216	100	25	25	14.2
* 280	250		727 798 797	2.030	291	320	265	243	100	45	25	15.9
* 315	300		727 798 798	2.200	335	370	300	274	100	35	25	17.9
* 355	350		727 798 799	5.800	374	431	340	314	182	100	30	20.1
* 400	400		727 798 800	7.700	428	484	385	353	199	110	33	22.7
* 450	500		727 798 801	13.000	514	585		396	140	586	46	25.5
* 500	500		727 798 802	13.000	530	585		440	141	585	47	28.3

PROGEF Standard adaptor for butterfly valves SDR17/17.6 Jointing face flat, metric



Model:

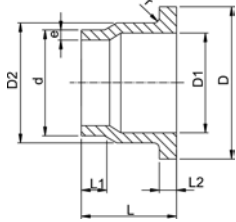
- Material: PP-R
- Conventional butt-welding according to DVS 2207 part 11
- Suitable for most common butterfly valves
- Chamfered and ready for use

Max pressure rating: 6 bar at 20°C water

d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
355	350	727 798 649	2.939	373	430	346	312	180	90	65	20.1
400	400	727 798 650	3.822	427	482	404	352	196	95	69	22.7
450	450	727 798 651	9.570	459	533	460	396	195	60	90	25.5
500	500	727 798 652	3.748	530	585	500	440	144	60	47	28.3

27 80 80

PROGEF Standard outlet flange adaptor S5/SDR11



Model:

- Material: PP-R
- Conventional butt-welding according to DVS 2207 part 11
- To wafer check valves Type 369

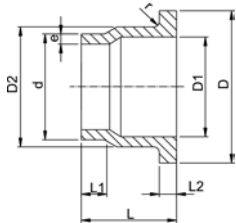
Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.

d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]
40	32	727 808 034	0.064	80	37	50	64	30	11	3,7	3
50	40	727 808 035	0.088	90	43	61	67	30	12	4,6	3
63	50	727 808 036	0.126	105	54	76	74	30	14	5,8	4
75	65	727 808 037	0.187	125	70	90	78	30	16	6,8	4
90	80	727 808 038	0.346	140	82	108	87	35	17	8,2	4
110	100	727 808 039	0.500	160	105	131	102	41	18	10,0	4
140	125	727 808 041	0.710	190	130	165	124	47	25	12,7	4
160	150	727 808 042	0.910	215	158	188	149	52	25	14,6	4
225	200	727 808 045	1.830	270	206	248	180	55	32	20,5	4
280	250	727 808 047	3.550	325	259	308	240	63	35	25,4	4
315	300	727 808 048	4.960	375	308	346	272	66	35	28,6	4

27 80 80

PROGEF Standard outlet flange adaptor S8.3/SDR17.6



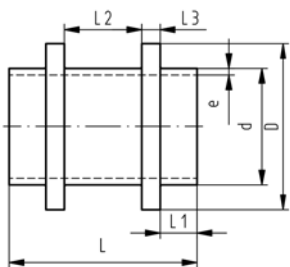
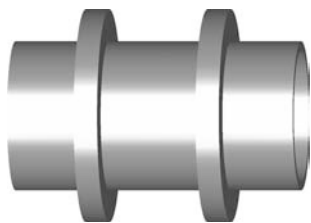
Model:

- Material: PP-R
- Conventional butt-welding according to DVS 2207 part 11
- To wafer check valves Type 369

Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.

d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]
40	32	727 808 009	0.048	80	37	50	64	30	11	2,3	3
50	40	727 808 010	0.067	90	43	61	67	30	12	2,9	3
63	50	727 808 011	0.096	105	54	76	74	30	14	3,6	4
75	65	727 808 012	0.170	125	70	90	78	30	16	4,3	4
90	80	727 808 013	0.260	140	82	108	87	35	17	5,1	4
110	100	727 808 014	0.355	160	105	131	102	41	18	6,3	4
140	125	727 808 016	0.500	190	130	165	124	47	18	8,0	4
160	150	727 808 017	0.630	215	158	188	149	52	18	9,1	4
225	200	727 808 020	1.225	270	206	248	180	55	24	12,7	4
280	250	727 808 022	2.230	325	259	308	240	63	25	15,9	4
315	300	727 808 023	2.450	375	308	346	272	66	25	17,9	4



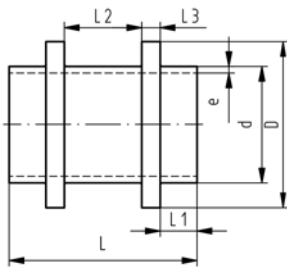
PROGEF Standard fixpoint fitting S5/SDR11

Model:

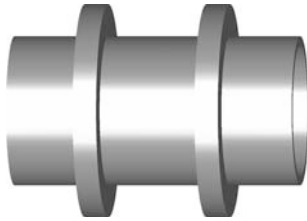
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Machined

d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]
63	IR	727 665 520	0.175	90	122	30	42	10	5.8
75	IR	727 665 521	0.254	110	122	30	42	10	6.8
90	IR	727 665 522	0.342	125	122	30	42	10	8.2
110	IR	727 665 523	0.567	140	142	30	52	15	10.0
125	IR	727 665 524	0.777	160	152	35	52	15	11.4
140	IR	727 665 525	1.023	180	162	40	52	15	12.7
160	IR	727 665 526	1.292	200	162	40	52	15	14.6
180	IR	727 665 527	1.917	225	182	45	52	20	16.4
200	IR	727 665 528	2.365	250	182	45	52	20	18.2

table continued next page



d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]
225	IR	727 665 529	3.294	280	192	45	52	25	20.5
250	--	727 665 530	3.695	280	212	50	62	25	22.7
280	--	727 665 531	4.997	315	222	50	62	30	25.4
315	--	727 665 532	6.348	355	222	50	62	30	28.6
355	--	727 665 533	7.405	400	192	30	62	35	32.2
400	--	727 665 534	10.432	450	212	30	72	40	36.3
450	--	727 665 535	14.153	500	232	35	72	45	40.9
500	--	727 665 536	19.414	560	252	40	72	50	45.4

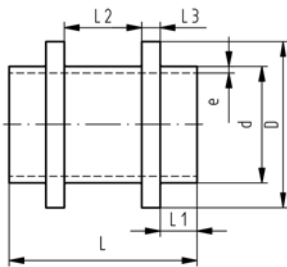


PROGEF Standard fixpoint fitting S8 3/SDR17 6



Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Machined



d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]
63	IR	727 665 539	0.138	90	122	30	42	10	3.8
75	IR	727 665 540	0.203	110	122	30	42	10	4.5
90	IR	727 665 541	0.267	125	122	30	42	10	5.4
110	IR	727 665 542	0.438	140	142	30	52	15	6.6
125	IR	727 665 543	0.592	160	152	35	52	15	7.4
140	IR	727 665 544	0.781	180	162	40	52	15	8.3
160	IR	727 665 545	0.971	200	162	40	52	15	9.5
180	IR	727 665 546	1.464	225	182	45	52	20	10.7
200	IR	727 665 547	1.808	250	182	45	52	20	11.9
225	IR	727 665 548	2.549	280	192	45	52	25	13.4
250	--	727 665 549	2.678	280	212	50	62	25	14.8
280	--	727 665 550	3.668	315	222	50	62	30	16.6
315	--	727 665 551	4.666	355	222	50	62	30	18.7
355	--	727 665 552	5.567	400	192	30	62	35	21.1
400	--	727 665 553	7.835	450	212	30	72	40	23.7
450	--	727 665 554	10.552	500	232	35	72	45	26.7
500	--	727 665 555	14.608	560	252	40	72	50	29.7

27 70 06



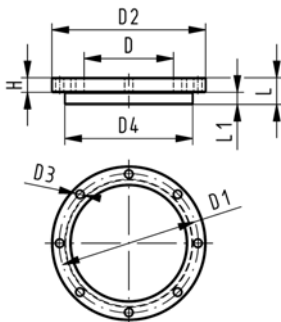
Blanking flange set PP-H Combined jointing face flat and serrated metric

Model:

- d63 - d315: Backing Flange PP-V with End Blank PP-H
- d355 - d630: Backing Flange PP/Steel with End Blank PP-H
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- Bolt circle PN 10

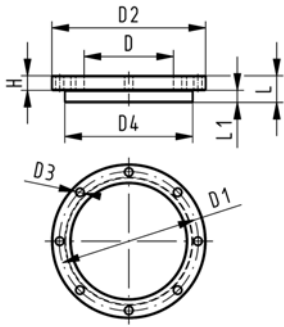
AL: number of holes

L: length of the End Blank



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	L [mm]	L1 [mm]	AL
63	50	10	727 700 611	0.668	75	125	165	18	102	24	30	14	4
75	65	10	727 700 612	0.901	89	145	185	18	122	26	30	16	4
90	80	10	727 700 613	1.054	105	160	200	18	138	27	30	17	8
110	100	10	727 700 614	1.199	125	180	220	18	158	28	30	18	8
125	100	10	727 700 615	1.658	132	180	220	18	158	28	35	25	8
140	125	10	727 700 616	1.883	155	210	250	18	188	30	40	25	8
160	150	10	727 700 617	2.312	175	240	285	22	212	32	40	25	8
180	150	10	727 700 618	2.386	180	240	285	22	212	32	45	30	8
200	200	10	727 700 619	3.419	232	295	340	22	268	34	50	32	8
225	200	10	727 700 620	3.658	235	295	340	22	268	34	50	32	8
250	250	10	727 700 621	5.425	285	350	395	22	320	38	55	35	12
280	250	10	727 700 622	19.781	291	350	395	22	320	38	60	35	12
315	300	10	727 700 623	24.348	335	400	445	22	370	42	65	35	12
355	350	10	727 700 624	22.874	373	460	515	22	430	40	70	40	16

table continued next page



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	L [mm]	L1 [mm]	AL
400	400	10	727 700 625	30.304	427	515	574	26	482	40	75	46	16
450	500	10	727 700 626	43.485	510	620	684	26	585	49	80	60	20
500	500	10	727 700 627	46.203	530	620	684	26	585	49	90	60	20
560	600	10	727 700 628	65.823	615	725	796	30	685	58	100	60	20
630	600	10	727 700 629	67.056	642	725	796	30	685	68	110	60	20

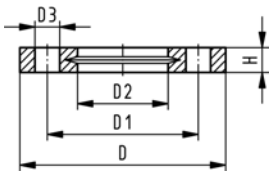
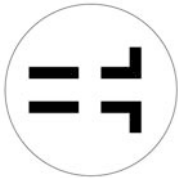
27 70 04
27 70 05

Backing flange PP-V For butt fusion systems metric

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12
25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12
32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12
40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16
50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16
63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16
75		65	16	727 700 412	0.480	185	145	92	18	26	4	M16
90		80	16	727 700 513	0.520	200	160	108	18	27	8	M16
110		100	16	727 700 514	0.680	220	180	128	18	28	8	M16
125		100	16	727 700 515	0.760	220	180	135	18	28	8	M16
140		125	16	727 700 516	0.800	250	210	158	18	30	8	M16
160	6	150	16	727 700 517	1.200	285	241	178	22	32	8	M20
180		150	16	727 700 518	1.200	285	240	188	22	32	8	M20
200	8	200	16	727 700 519	1.400	340	295	235	22	34	8	M20
225	9	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
250		250	16	727 700 521	1.700	395	350	288	22	38	12	M20
280		250	16	727 700 522	1.700	395	350	294	22	38	12	M20
315		300	16	727 700 523	2.400	445	400	338	22	42	12	M20
355		350	10	727 700 524	3.000	515	460	376	22	46	16	M20
400		400	10	727 700 525	3.500	574	515	430	26	50	16	M24

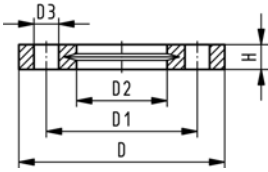
27 70 04
27 70 05

Backing flange PP-V For socket systems metric

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12
25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12
32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12
40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16
50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16
63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16
75		65	16	727 700 412	0.480	185	145	92	18	26	4	M16
90		80	16	727 700 413	0.520	200	160	110	18	27	8	M16
110		100	16	727 700 414	0.680	220	180	133	18	28	8	M16

27 70 14
27 70 15

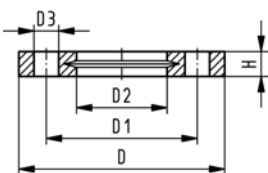
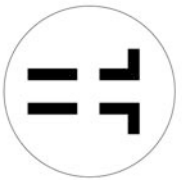
Backing flange PP-V For butt fusion systems Inch ANSI

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

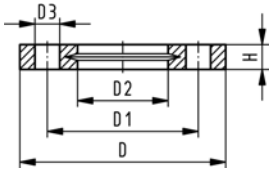
¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes



Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.080	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.100	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.140	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.220	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.210	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.380	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.480	185	140	92	19	26	4	M16
3	80	16	727 701 513	0.520	200	152	108	19	27	4	M16
4	100	16	727 701 514	0.680	229	190	128	19	28	8	M16
6	150	16	727 700 517	1.200	285	241	178	22	32	8	M20
8	200	16	727 700 519	1.400	340	295	235	22	34	8	M20
9	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
10	250	16	727 701 521	1.800	406	362	288	26	38	12	M20
10	250	16	727 701 522	1.700	406	362	294	26	38	12	M20
12	300	16	727 701 523	2.400	483	432	338	26	42	12	M20

27 70 14
27 70 15



Backing flange PP-V For socket systems Inch/ANSI

Model:

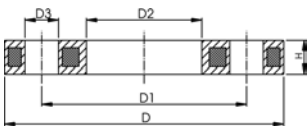
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes

Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.080	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.100	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.140	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.220	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.210	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.380	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.480	185	140	92	19	26	4	M16
3	80	16	727 701 413	0.520	200	152	110	19	27	4	M16
4	100	16	727 701 414	0.680	229	190	133	19	28	8	M16

27 70 02
27 70 03



Backing flange PP-Steel For butt fusion systems metric

Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	0.220	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.260	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.430	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.650	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.820	150	110	62	18	20	4	M16
63	50	16	727 700 211	0.940	165	125	78	18	20	4	M16
75	65	16	727 700 212	1.300	185	145	92	18	20	4	M16
90	80	16	727 700 313	1.400	200	160	108	18	20	8	M16
110	100	16	727 700 314	1.580	220	180	128	18	20	8	M16
125	100	16	727 700 315	1.550	220	180	135	18	20	8	M16
140	125	16	727 700 316	2.360	250	210	158	18	24	8	M16
160	150	16	727 700 317	3.890	285	240	178	22	24	8	M20
180	150	16	727 700 318	3.410	285	240	188	22	24	8	M20
200	200	16	727 700 319	5.180	340	295	235	22	27	8	M20
225	200	16	727 700 320	5.150	340	295	238	22	27	8	M20
250	250	16	727 700 321	6.680	395	350	288	22	30	12	M20
280	250	16	727 700 322	6.580	395	350	294	22	30	12	M20
315	300	16	727 700 323	8.420	445	400	338	22	34	12	M20
355	350	16	727 700 324	15.790	515	460	376	22	40	16	M20
400	400	16	727 700 325	19.320	574	515	430	26	40	16	M24

27 70 12

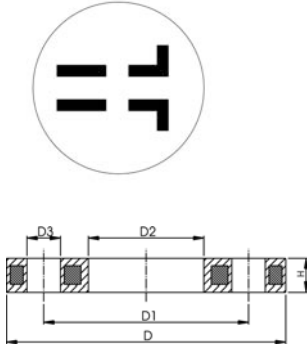


Backing flange PP-Steel For butt fusion systems Inch/ANSI

Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

AL: number of holes



DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
15	20	16	727 701 206	0.210	60	28	16	95	12	4
20	25	16	727 701 207	0.250	70	34	16	105	12	4
25	32	16	727 701 208	0.420	79	42	16	115	16	4
32	40	16	727 701 209	0.670	89	51	16	140	16	4
40	50	16	727 701 210	0.860	98	62	16	150	18	4
50	63	16	727 701 211	0.930	121	78	19	165	18	4
65	75	16	727 701 212	1.340	140	92	19	185	18	4
80	90	16	727 701 313	1.550	152	108	19	200	20	4
100	110	16	727 701 314	1.840	190	128	19	229	20	8
150	160	16	727 700 317	3.890	240	178	22	285	24	8
200	200	16	727 701 319	5.180	298	235	22	340	27	8
200	225	16	727 701 320	5.150	298	238	22	340	27	8

24 70 04



Profiled backing flange PP/Steel For butt fusion systems metric

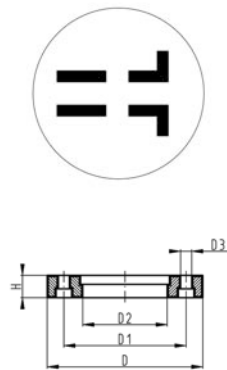
Model:

- PP with glass-fibre reinforcement and GGG 50 insert
- UV-resistant. Applicable for outside applications
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

Note:

flat side = bolt side
profiled side = flange adaptor side

AL: number of holes



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
450	500	10	724 700 426	25.600	685	620	517	26	54	20	M24
500	500	10	724 700 427	24.300	685	620	533	26	54	20	M24
560	600	10	724 700 428	35.700	796	725	618	30	64	20	M27
630	600	10	724 700 429	32.500	800	725	645	30	58	20	M27
710	700	6	724 700 430	28.600	912	840	740	30	49	24	M27
800	800	6	724 700 431	39.300	1026	950	843	33	58	24	M30
900	900	6	724 700 432	48.500	1129	1050	947	33	62	28	M30

EPDM 48 44 07
FPM 49 44 07

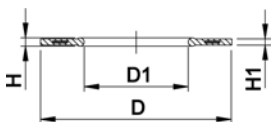


Profile flange gasket metric

Model:

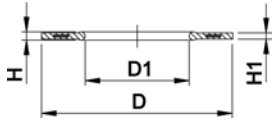
- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- **EPDM:** approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
16	10	16	748 440 705	749 440 705	0.007	46	16	4	3	6 - 16
20	15	16	748 440 706	749 440 706	0.008	51	20	4	3	10 - 20
25	20	16	748 440 707	749 440 707	0.011	61	22	4	3	12 - 22
32	25	16	748 440 708	749 440 708	0.014	71	28	4	3	18 - 28

table continued next page



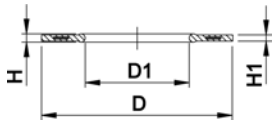
d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
40	32	16	748 440 709	749 440 709	0.021	82	40	4	3	30 - 40
50	40	16	748 440 710	749 440 710	0.022	92	46	4	3	36 - 46
63	50	16	748 440 711	749 440 711	0.041	107	58	5	4	48 - 58
75	65	16	748 440 712	749 440 712	0.055	127	69	5	4	59 - 69
90	80	16	748 440 713	749 440 713	0.062	142	84	5	4	73 - 84
110	100	16	748 440 714	749 440 714	0.085	162	104	6	5	94 - 104
125	100	16	748 440 715	749 440 715	0.158	162	123	6	5	113 - 123
140	125	16	748 440 716	749 440 716	0.118	192	137	6	5	127 - 137
160 / 180	150	16	748 440 717	749 440 717	0.153	218	160	8	6	150 - 160
200	200	16	748 440 719	749 440 719	0.263	273	203	8	6	192 - 203
225	200	16	748 440 720	749 440 720	0.181	273	220	8	6	207 - 220
250	250	16	748 440 721	749 440 721	0.410	328	252	8	6	238 - 252
280	250	16	748 440 722	749 440 722	0.226	328	274	8	6	264 - 274
315	300	16	748 440 723	749 440 723	0.334	378	306	8	6	296 - 306
355	350	16	748 440 724	749 440 724	0.410	438	355	10	7	340 - 355
400	400	16	748 440 725	749 440 725	0.513	489	400	10	7	385 - 400
450	500	16	748 440 726	749 440 726	0.718	594	403	10	7	393 - 403
500	500	16	748 440 727	749 440 727	0.718	594	447	10	7	437 - 447
560	600	16	748 440 728	749 440 728	0.923	695	494	10	7	484 - 494
630	600	16	748 440 729	749 440 729	0.923	695	555	10	7	545 - 555

EPDM 48 44 03
FPM 49 44 03

Profile flange gasket for flange connections metric

Model:

- Hardness: 70° Shore EPDM, 75° Shore FPM
- suitable for flange adaptors



d [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]
25	748 440 302	749 440 302	0.010	61	22	4	3
32	748 440 303	749 440 303	0.016	71	28	4	3
40	748 440 304	749 440 304	0.025	82	34	4	3
50	748 440 305	749 440 305	0.033	92	42	4	3
63	748 440 306	749 440 306	0.048	107	53	5	4
75	748 440 307	749 440 307	0.076	127	63	5	4
90	748 440 308	749 440 308	0.076	142	76	5	4
110	748 440 309	749 440 309	0.112	162	93	6	5
125	748 440 310	749 440 310	0.110	162	105	6	5
140	748 440 311	749 440 311	0.146	192	117	6	5
160	748 440 312	749 440 312	0.207	218	135	8	6
180	748 440 313	749 440 313	0.260	218	151	8	6
200	748 440 314	749 440 314	0.430	273	168	8	6
225	748 440 315	749 440 315	0.365	273	188	8	6
250	748 440 316	749 440 316	0.520	328	208	8	6
280	748 440 317	749 440 317	0.496	328	233	8	6
315	748 440 318	749 440 318	0.600	378	262	8	6
355	748 440 319	749 440 319	0.750	438	294	8	6
400	748 440 320	749 440 320	0.750	489	331	8	6

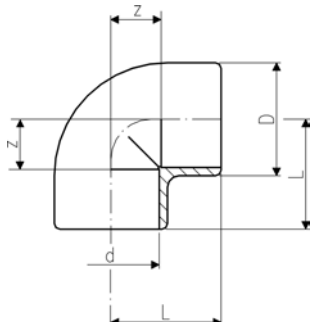
Fittings for Socket Fusion

27 10 01

PROGEF Standard elbow 90°

Model:

- Material: PP-H



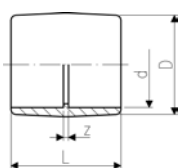
d [mm]	PN	Code	kg	D [mm]	L [mm]	z [mm]
16	10	727 100 105	0.015	26	25	12
20	10	727 100 106	0.020	31	28	14
25	10	727 100 107	0.029	36	32	16
32	10	727 100 108	0.044	44	38	20
40	10	727 100 109	0.074	54	44	24
50	10	727 100 110	0.128	66	51	28
63	10	727 100 111	0.230	82	62	35
75	10	727 100 112	0.317	93	76	45
90	10	727 100 113	0.512	110	88	53
110	10	727 100 114	0.874	134	106	65

27 91 01

PROGEF Standard socket equal

Model:

- Material: PP-H



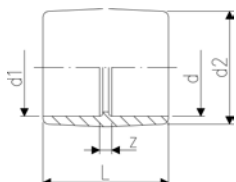
d [mm]	PN	Code	kg	D [mm]	L [mm]	z [mm]
16	10	727 910 105	0.010	26	33	7
20	10	727 910 106	0.013	31	35	7
25	10	727 910 107	0.019	36	39	7
32	10	727 910 108	0.026	44	43	7
40	10	727 910 109	0.042	54	48	8
50	10	727 910 110	0.075	66	54	8
63	10	727 910 111	0.129	82	62	8
75	10	727 910 112	0.144	93	70	8
90	10	727 910 113	0.257	112	81	11
110	10	727 910 114	0.405	134	96	14

27 91 30

Adaptor Sockets, PP-H metric - Inch BS

Model:

- Material: PP-H
- With fusion socket metric and BS Inch (ASTM)



d [mm]	PN	Code	kg	d2 [mm]	L [mm]	z [mm]
20	10	727 913 006	0.013	31	35	7
25	10	727 913 007	0.010	36	39	7
32	10	727 913 008	0.025	44	43	7
40	10	727 913 009	0.040	54	48	8
50	10	727 913 010	0.100	66	54	8
63	10	727 913 011	0.130	82	62	8
90	10	727 913 013	0.260	112	81	10
110	10	727 913 014	0.389	134	96	12

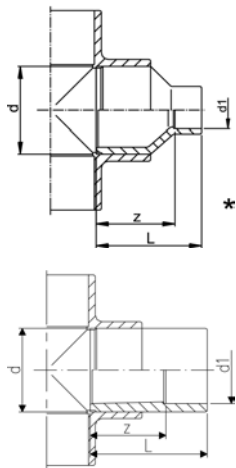
27 91 03

PROGEF Standard reducer**Model:**

- Material: PP-H

Note:

* Fusion spigot and socket

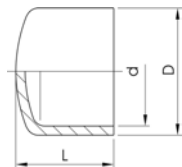


d [mm]	d1 [mm]	PN	Code	kg	L [mm]	z [mm]
20	16	10	727 910 334	0.009	35	22
25	16	10	727 910 338	0.010	38	25
25	20	10	727 910 337	0.014	37	23
32	20	10	727 910 342	0.016	43	29
32	25	10	727 910 341	0.020	43	27
* 40	20	10	727 910 348	0.022	48	34
* 40	25	10	727 910 347	0.026	48	32
40	32	10	727 910 346	0.031	48	30
* 50	20	10	727 910 355	0.034	54	40
* 50	25	10	727 910 354	0.035	54	38
* 50	32	10	727 910 353	0.040	54	36
50	40	10	727 910 352	0.047	54	34
* 63	25	10	727 910 361	0.058	64	46
* 63	32	10	727 910 360	0.061	64	46
* 63	40	10	727 910 359	0.068	64	44
63	50	10	727 910 358	0.082	64	41
75	63	10	727 910 364	0.098	62	35
* 90	63	10	727 910 371	0.181	88	61
90	75	10	727 910 370	0.134	70	39
110	90	10	727 910 376	0.247	81	46

27 96 01

PROGEF Standard end cap**Model:**

- Material: PP-H

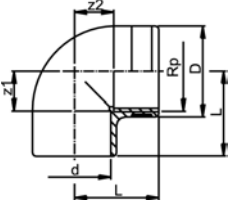


d [mm]	PN	Code	kg	D [mm]	L [mm]
16	10	727 960 105	0.006	25	20
20	10	727 960 106	0.010	30	27
25	10	727 960 107	0.015	36	30
32	10	727 960 108	0.024	44	34
40	10	727 960 109	0.036	53	38
50	10	727 960 110	0.061	65	44
63	10	727 960 111	0.098	80	51
75	10	727 960 112	0.146	91	65
90	10	727 960 113	0.273	111	77
110	10	727 960 114	0.417	137	93

Adaptor fittings for socket fusion

27 10 02

PROGEF Standard elbow 90° metric Rp



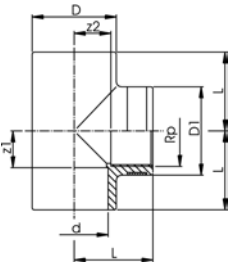
Model:

- Material: PP-H
- With fusion socket metric and parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	D [mm]	L [mm]	z1 [mm]	z2 [mm]
20	½	10	727 100 206	0.022	30	28	14	14
25	¾	10	727 100 207	0.029	35	32	16	16
32	1	10	727 100 208	0.054	44	38	20	20
40	1 ¼	10	727 100 209	0.087	54	44	24	24

27 20 02

PROGEF Standard tee 90° metric Rp



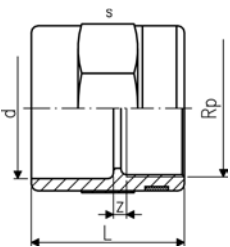
Model:

- Material: PP-H
- Line, with fusion socket metric
- Branch, with BSP parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	z1 [mm]	z2 [mm]
20	½	10	727 200 206	0.030	31	30	28	14	14
25	¾	10	727 200 207	0.042	36	35	32	16	16
32	1	10	727 200 208	0.069	44	45	38	20	20
40	1 ¼	10	727 200 209	0.107	54	55	44	24	24

27 91 02

PROGEF Standard adaptor socket metric Rp

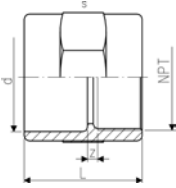


Model:

- Material: PP-H
- With fusion socket metric and parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]
20	¾	10	727 910 205	0.017	35	32	7
20	½	10	727 910 206	0.017	40	32	7
25	¾	10	727 910 207	0.023	42	36	7
32	1	10	727 910 208	0.038	48	46	7
40	1 ¼	10	727 910 209	0.056	53	55	7
50	1 ½	10	727 910 210	0.089	54	65	9
63	2	10	727 910 211	0.137	62	80	9

27 91 42



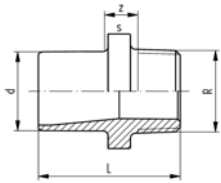
Adaptor Sockets, PP-H metric - NPT

Model:

- Material: PP-H
- With fusion socket metric and NPT tapered female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]
20	¾	10	727 914 266	0.017	40	32	7
25	¾	10	727 914 267	0.023	42	36	7
32	1	10	727 914 268	0.038	48	46	7
40	1 ¼	10	727 914 269	0.056	53	55	7
50	1 ½	10	727 914 270	0.092	54	65	9
63	2	10	727 914 271	0.146	62	80	9

27 91 05



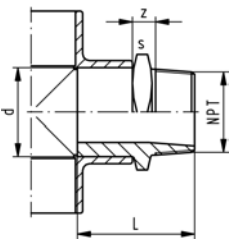
PROGEF Standard adaptor nipple metric R

Model:

- Material: PP-H
- With fusion spigot metric and R tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	Code	kg	L [mm]	s [mm]	z [mm]
16	¾	10	727 910 505	0.008	37	27	13
20	½	10	727 910 506	0.012	42	32	13
25	¾	10	727 910 507	0.016	46	36	13
32	1	10	727 910 508	0.027	52	46	12
40	1 ¼	10	727 910 509	0.041	56	55	14
50	1 ½	10	727 910 510	0.062	60	65	15
63	2	10	727 910 511	0.100	69	80	16

27 91 45



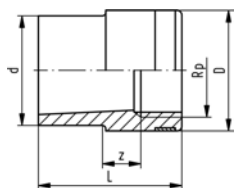
PROGEF Standard adaptor nipple metric NPT

Model:

- Material: PP-H
- With fusion spigot metric and NPT tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	Code	kg	s [mm]	L [mm]	z [mm]
16	¾	10	727 914 555	0.008	27	37	13
20	½	10	727 914 556	0.012	32	42	13
25	¾	10	727 914 557	0.016	36	46	13
32	1	10	727 914 558	0.027	46	52	12
40	1 ¼	10	727 914 559	0.041	55	56	14
50	1 ½	10	727 914 560	0.100	65	60	15
63	2	10	727 914 561	0.185	80	69	16

27 91 04



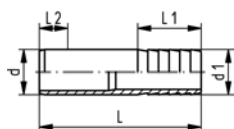
PROGEF Standard reducing bush metric Rp

Model:

- Material: PP-H
- With fusion spigot metric and BSP parallel female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	L [mm]	z [mm]
20	¼	10	727 910 433	0.008	36	7
20	⅜	10	727 910 434	0.011	36	7
25	½	10	727 910 437	0.015	45	6
32	¾	10	727 910 441	0.023	47	8
40	1	10	727 910 446	0.039	53	9
50	1 ¼	10	727 910 452	0.061	55	10

27 96 04



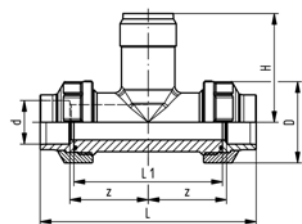
PROGEF Standard hose connector metric

Model:

- Material: PP-H
- With socket fusion spigot metric and parallel hose connection

d [mm]	d1 [mm]	PN	Code	kg	L [mm]	L1 [mm]	L2 [mm]
20	20	10	727 960 406	0.009	78	27	14
25	25	10	727 960 407	0.015	91	36	16
32	32	10	727 960 408	0.026	100	36	18
40	40	10	727 960 409	0.040	104	42	20
50	50	10	727 960 410	0.061	90	48	23
63	60	10	727 960 411	0.096	100	50	27

27 31 00



PROGEF Standard installation fitting type 310 S5/SDR11 for socket systems metric

Model:

- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Union end with fusion socket PP-H

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

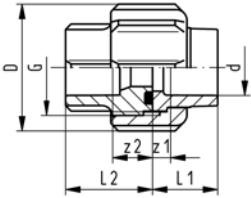
- sensor length depends on installation fitting

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
20	15	10	727 310 006	727 310 036	0.136
25	20	10	727 310 007	727 310 037	0.190
32	25	10	727 310 008	727 310 038	0.250
40	32	10	727 310 009	727 310 039	0.356
50	40	10	727 310 010	727 310 040	0.510
63	50	10	727 310 011	727 310 041	0.800

d [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type
20	48	50	128	90	76	flow X0, pH XX
25	58	55	142	100	78	flow X0, pH XX
32	65	60	156	110	81	flow X0, pH XX
40	79	60	160	110	85	flow X0, pH XX
50	91	65	176	120	89	flow X0, pH XX
63	105	70	194	130	95	flow X0, pH XX

Unions for socket fusion

EPDM 27 51 01
FPM 27 52 01



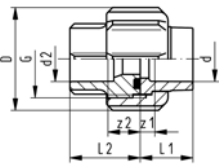
PROGEF Standard union metric

Model:

- Material: PP-H
- Fusion socket metric
- D75-110 with new thread geometry, now rated PN10 up to d110
- Jointing face: With O-ring groove
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	G [inch]	L1 [mm]	L2 [mm]	z [mm]	z1 [mm]
16	10	727 510 155	727 520 155	0.020	35	3/4	18	24	5	11
20	10	727 510 156	727 520 156	0.038	48	1	19	26	5	12
25	10	727 510 157	727 520 157	0.062	58	1 1/4	21	28	5	12
32	10	727 510 158	727 520 158	0.079	65	1 1/2	23	30	5	12
40	10	727 510 159	727 520 159	0.137	79	2	25	34	5	14
50	10	727 510 160	727 520 160	0.180	91	2 1/4	28	39	5	16
63	10	727 510 161	727 520 161	0.312	111	2 3/4	32	47	5	20
75	10	727 510 172	727 520 172	0.450	135	S107,5x3,6	36	51	5	20
90	10	727 510 173	727 520 173	0.645	158	S127,5x3,6	42	55	7	20
110	10	727 510 174	727 520 174	1.020	188	S152,5x3,6	49	54	7	12

27 51 30



PROGEF Standard adapter union metric Inch BS (ASTM)

Model:

- Material: PP-H
- Fusion socket metric
- Jointing face: With O-ring groove

d [mm]	d2	PN	Code	kg	D [mm]	G [inch]	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]
20	1/2	10	727 513 006	0.036	48	1	19	26	5	12
25	3/4	10	727 513 007	0.060	58	1 1/4	21	28	5	12
32	1	10	727 513 008	0.079	65	1 1/2	23	30	5	12
40	1 1/4	10	727 513 009	0.112	79	2	25	34	5	14
50	1 1/2	10	727 513 010	0.182	91	2 1/4	28	39	5	16
63	2	10	727 513 011	0.315	111	2 3/4	32	47	5	20

Instructions for the installation of unions in PP, PE d 75, d 90 and d 110

The newest generation of plastic unions in the above materials and dimensions has been fitted with a state-of-the-art, plastics-oriented buttress thread. You therefore have a product in which the nominal pressure and the safety reserve have been dramatically increased. Also new are the butt fusion versions. In this connection, there are a few points which you must be aware of.

Caution



- ① The threads of the union nut and bush have been reworked for PP, PVDF and PE! When using individual parts, please check prior to installation if the threads of the union bush and the union nut coincide.

Union bush with trapezoid thread on union nut with trapezoid thread
or
Union bush with buttress thread on union nut with buttress thread

Tip

To make installation of the union easier, wet the union nut.

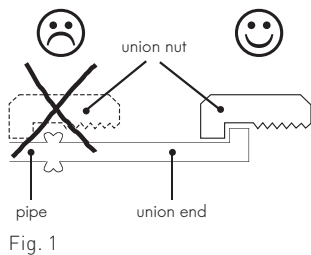


Fig. 1

- ② For the dimensions d90 and d 110 we advise fusing the complete union, if possible (or slide the union nut to the collar of the union end) because after fusion the union nut cannot be slid over the fusion bead. (Fig. 1)

- ③ For design reasons, it is theoretically possible to combine different nominal diameters of union ends and nuts. To make sure combinations are technically correct, you can find the code numbers of the single parts and spare parts for each union in the Tables 1-3.

Caution

Only use union bushes and union ends with the same nominal diameter!

A butt fusion union bush d75 may not be combined with a butt fusion union end d90 to form a reducer because this can cause leakage, as illustrated to the left. (Fig. 2)

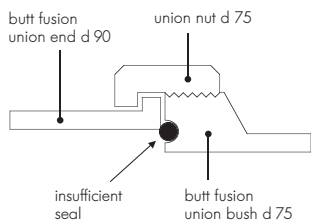


Fig. 2

Markings on the union nuts

SF/MS = socket fusion, BF/ST = butt fusion

SF/MS 75 specified for socket fusion d75
BF/ST 75-90 specified for butt fusion d75-75 and d90-90

SF/MS 90 specified socket fusion d90
BF/ST 110 specified butt fusion d110

110 specified for socket fusion d110

Tip

We recommend changing materials only for the union end for installation reasons.

Selection tables for single parts and spare parts



Butt fusion

Socket fusion

Table 1

Single parts for **PP-H** unions d 75, d 90 and d 110

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75			11	10	727 608 512	727 648 512	727 690 422
			17.6	6	727 608 412	727 648 412	727 690 422
			—	10	727 600 112	727 640 172	727 690 422
90			11	10	727 608 513	727 648 513	727 690 422
			17.6	6	727 608 413	727 648 413	727 690 422
			—	10	727 600 113	727 640 173	727 690 423
110			11	10	727 608 514	727 648 514	727 690 423
			17.6	6	727 608 414	727 648 414	727 690 423
			—	10	727 600 114	727 640 174	727 690 424

Table 2

Single parts for **PE 100** unions d 75, d 90 and d 110

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75			11	10	753 608 612	753 648 612	727 690 442
			17.6	10	753 608 412	753 648 412	727 690 442
90			11	10	753 608 613	753 648 613	727 690 442
			17.6	10	753 608 413	753 648 413	727 690 442
110			11	10	753 608 614	753 648 614	727 690 443
			17.6	10	753 608 414	753 648 414	727 690 443

Table 3

O-Rings for PP-H, PE 100

d	BF/ST	SF/MS	SDR	PN	Code O-Ring EPDM ¹	Code O-Ring FPM ¹
75				16	748 410 013	749 410 013
				16	748 410 014	749 410 014
90				16	748 410 014	749 410 014
				16	748 410 015	749 410 015
110				16	748 410 015	749 410 015
				16	748 410 016	749 410 016

* Union nuts overlap several dimensions

¹ Flange adaptor O-rings, one size smaller in nominal dimensions, are used for the d 75–110 butt-fusion unions

Adaptor Unions for Socket Fusion

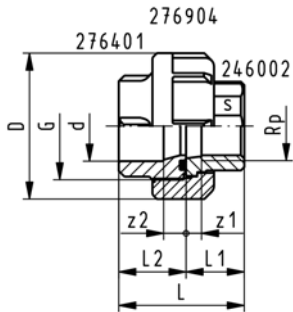
27 53 03



PROGEF Standard adaptor union PP-H/malleable iron Metric Rp

Model:

- Union End: malleable iron with parallel female thread Rp
- Union Bush: fusion socket PP-H metric
- Union Nut: PP-H
- Gasket: O-Ring EPDM No. 48 41 00



d [mm]	Rp [inch]	PN	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]	G [inch]	s [mm]
20	1/2	10	727 530 306	0.073	43	48	22	26	9	10	1	25
25	3/4	10	727 530 307	0.118	51	50	22	28	7	10	1 1/4	31
32	1	10	727 530 308	0.199	58	56	26	30	9	10	1 1/2	38
40	1 1/4	10	727 530 309	0.276	72	65	31	34	12	12	2	48
50	1 1/2	10	727 530 310	0.357	83	72	33	39	14	14	2 1/4	54
63	2	10	727 530 311	0.579	100	82	35	47	11	18	2 3/4	67

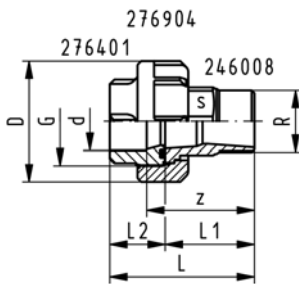
27 53 08



PROGEF Standard adaptor union PP-H/malleable iron Metric R

Model:

- Union End: Malleable iron with taper male thread R
- Union Bush: fusion socket PP-H metric
- Union Nut: PP-H
- Gasket: O-Ring EPDM No. 48 41 00



d [mm]	R [inch]	PN	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	G [inch]	s [mm]
20	1/2	10	727 530 806	0.112	43	66	40	26	50	1	25
25	3/4	10	727 530 807	0.171	51	71	43	28	53	1 1/4	31
32	1	10	727 530 808	0.236	58	78	48	30	58	1 1/2	38
40	1 1/4	10	727 530 809	0.379	72	91	57	34	69	2	48
50	1 1/2	10	727 530 810	0.512	83	98	59	39	73	2 1/4	54
63	2	10	727 530 811	0.763	100	109	62	47	80	2 3/4	67

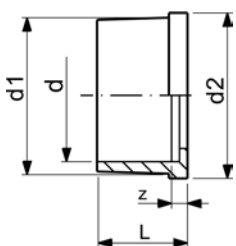
34 60 01



Union Ends, PE80

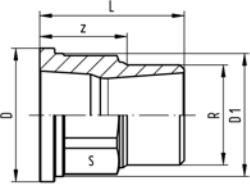
Model:

- With fusion socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 514



d [mm]	PN	Code	kg	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	z [mm]
20	10	734 600 106	0.006	28	30	19	5	5
25	10	734 600 107	0.012	36	39	21	5	5
32	10	734 600 108	0.015	42	45	23	6	5
40	10	734 600 109	0.026	53	57	25	6	5
50	10	734 600 110	0.027	59	63	28	7	5
63	10	734 600 111	0.045	74	79	32	8	5

24 60 08



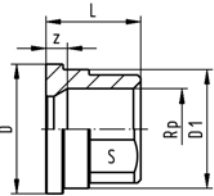
Union end malleable iron galvanized R

Model:

- Union End: Malleable iron with taper male thread R

d [mm]	R [inch]	Code	kg	D [mm]	D1 [mm]	L [mm]	z [mm]	s [mm]
20	1/2	724 600 806	0.085	30	27	40	25	23
25	3/4	724 600 807	0.147	39	36	43	27	30
32	1	724 600 808	0.210	44	41	48	29	36
40	1 1/4	724 600 809	0.315	56	52	57	36	48
50	1 1/2	724 600 810	0.411	62	58	59	37	54
63	2	724 600 811	0.665	78	73	62	36	66

24 60 02



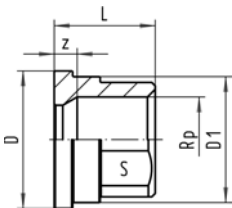
Union end malleable iron galvanized Rp

Model:

- Union End: malleable iron with parallel female thread Rp

d [mm]	Rp [inch]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	z [mm]	s [mm]
20	1/2	16	724 600 206	0.058	30	27	22	9	25
25	3/4	16	724 600 207	0.096	39	36	22	7	31
32	1	16	724 600 208	0.127	44	41	26	9	38
32	1 1/4	16	724 600 209	0.204	56	52	31	12	48
50	1 1/2	16	724 600 210	0.268	62	58	33	14	54
63	2	16	724 600 211	0.443	78	73	35	11	67

20 60 02



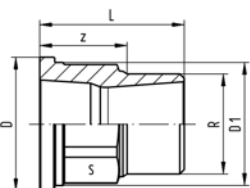
Union end brass Rp

Model:

- Union End: Brass with parallel female thread Rp

d [mm]	Rp [inch]	Code	kg	D [mm]	D1 [mm]	z [mm]	L [mm]	s [mm]
20	1/2	720 600 236	0.059	30	28	5	22	25
25	3/4	720 600 237	0.100	39	36	6	25	30
32	1	720 600 238	0.128	45	42	6	27	36
40	1 1/4	720 600 239	0.232	56	53	7	31	46
50	1 1/2	720 600 240	0.324	62	59	7	35	55
63	2	720 600 241	0.510	78	74	8	40	65
75	2 1/2	720 600 242	0.941	100	92	10	47	85
90	3	720 600 243	1.395	121	110	11	52	95

20 60 02



Union end brass R

Model:

- Union End: Brass with taper male thread R

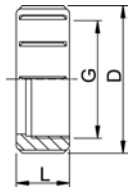
d [mm]	R [inch]	Code	kg	D [mm]	D1 [mm]	L [mm]	z [mm]	s [mm]
20	1/2	720 600 246	0.098	30	28	37	22	25
25	3/4	720 600 247	0.151	39	36	42	25	30
32	1	720 600 248	0.232	45	42	46	28	36
32	1 1/4	720 600 249	0.408	56	53	52	32	46
50	1 1/2	720 600 250	0.538	62	59	56	36	55
63	2	720 600 251	0.859	78	74	67	42	65
75	2 1/2	720 600 252	1.446	100	92	77	49	85
90	3	720 600 253	2.063	121	110	86	54	95

27 69 04

Union Nut, PP-GF

Model:

- Material: PP glass-fibre reinforced



Socket Fusion d [mm]	Butt Fusion d [mm]	PN	G [inch]	Code	kg	D [mm]	L [mm]
16	16	10	3/4	727 690 405	0.008	35	21
20	20	10	1	727 690 406	0.021	48	24
25	25	10	1 1/4	727 690 407	0.034	58	26
32	32	10	1 1/2	727 690 408	0.042	65	28
40	40	10	2	727 690 409	0.045	77	27
50	50	10	2 1/4	727 690 410	0.060	84	30
63	63	10	2 3/4	727 690 411	0.128	111	39
75	75 - 90	10	S107,5x3,6	727 690 422	0.205	135	40
90	110	10	S127,5x3,6	727 690 423	0.288	158	43
110	-	10	S152,5x3,6	727 690 424	0.460	188	48

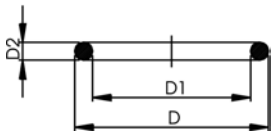
EPDM 48 41 00
FPM 49 41 00

O-Ring gasket

Model:

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FPM minimum temperature -15°C

* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

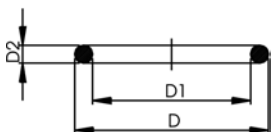


d [mm]	DN [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
16	10	748 410 005	749 410 005	0.002	21	16	2.62
20	15	748 410 006	749 410 006	0.002	27	20	3.53
25	20	748 410 007	749 410 007	0.002	35	28	3.53
32	25	748 410 008	749 410 008	0.002	40	33	3.53
40	32	748 410 009	749 410 009	0.006	51	41	5.34
50	40	748 410 010	749 410 010	0.007	58	47	5.34
63	50	748 410 011	749 410 011	0.010	70	60	5.34
75	65	748 410 014	749 410 014	0.012	93	82	5.34
90	80	748 410 015	749 410 015	0.015	112	101	5.34
110	100	748 410 016	749 410 016	0.031	134	120	6.99

O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 75° Shore
- FFPM minimum temperature -20°C

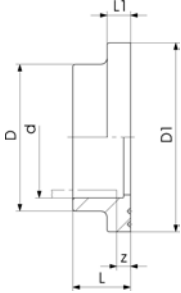


d [mm]	DN [mm]	FFPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
20	15	700 245 481	0.002	27	20	4
25	20	700 245 482	0.002	35	28	4
32	25	700 245 483	0.002	40	33	4
40	32	700 245 484	0.006	51	41	5
50	40	700 245 485	0.007	58	47	5
63	50	700 245 486	0.010	70	60	5

Flange Adaptors, Flanges and Gaskets for Socket Fusion

27 79 02

PROGEF Standard flange adaptor Jointing face flat/serrated



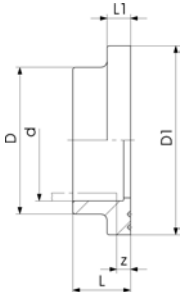
Model:

- Material: PP-H
- Counterpart: Flange Adaptor flat/serrated or with O-ring groove
- Connection: according to EN ISO 15494-1
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07
- Flanges: PP with steel core, No. 27 70 02, PP-V, No. 27 70 04

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
20	15	10	727 790 206	0.011	27	45	19	7	5
25	20	10	727 790 207	0.022	33	58	21	9	5
32	25	10	727 790 208	0.033	41	68	23	10	5
40	32	10	727 790 209	0.046	50	78	25	11	5
50	40	10	727 790 210	0.062	61	88	28	12	5
63	50	10	727 790 211	0.090	76	102	32	14	5
75	65	10	727 790 212	0.163	90	122	36	16	5
90	80	10	727 790 213	0.233	108	138	42	17	7
110	100	10	727 790 214	0.319	131	158	48	18	7

27 79 02

PROGEF Standard flange adaptor Jointing face serrated ANSI



Model:

- Material: PP-H
- Counterpart: Flange adaptor serrated
- Gasket: Profile flange gasket EPDM No. 48 44 05, FPM No. 49 44 05
- Flanges: PP with steel core, No. 27 70 02, PP-V, No. 27 70 04

d [mm]	PN	Code	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
25	10	727 790 257	0.019	33	54	21	7	5
32	10	727 790 258	0.028	41	63	23	7	5
40	10	727 790 259	0.040	50	73	25	8	5
50	10	727 790 260	0.053	61	82	28	8	5
90	10	727 790 263	0.233	108	133	36	16	5

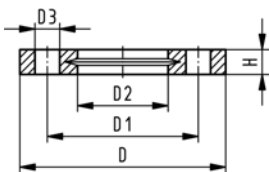
27 70 04
27 70 05

Backing Flanges, PP-V For socket systems metric

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12
25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12
32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12
40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16
50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16
63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16
75		65	16	727 700 412	0.480	185	145	92	18	26	4	M16
90		80	16	727 700 413	0.520	200	160	110	18	27	8	M16
110		100	16	727 700 414	0.680	220	180	133	18	28	8	M16

27 70 14
27 70 15

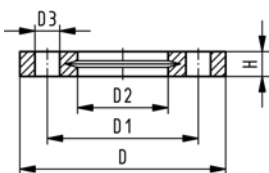
Backing Flanges, PP-V For socket systems Inch/ANSI

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes



Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.080	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.100	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.140	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.220	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.210	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.380	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.480	185	140	92	19	26	4	M16
3	80	16	727 701 413	0.520	200	152	110	19	27	4	M16
4	100	16	727 701 414	0.680	229	190	133	19	28	8	M16

27 70 02

Backing Flanges, PP/Steel For socket systems metric

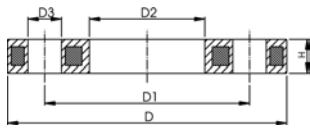
Model:

- PP-GF (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

¹ Connecting dimension: ISO 2536, bolt circle acc. DN125, suitable for flange adaptor d125/DN100

² Connecting dimension: ISO 2536, bolt circle acc. DN225, suitable for flange adaptor d250/DN250

AL: number of holes



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	0.220	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.260	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.430	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.650	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.820	150	110	62	18	20	4	M16
63	50	16	727 700 211	0.940	165	125	78	18	20	4	M16
75	65	16	727 700 212	1.300	185	145	92	18	20	4	M16
90	80	16	727 700 213	1.400	200	160	110	18	20	8	M16
110	100	16	727 700 214	1.560	220	180	133	18	20	8	M16

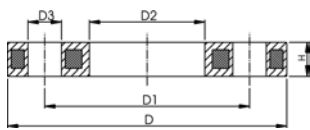
27 70 12

Backing Flanges, PP/Steel For socket systems Inch/ANSI

Model:

- For Flange Adaptors BS/ANSI
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- DN100 and DN150: only for use with original metric flange adaptors

AL: number of holes



DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
15	20	16	727 701 206	0.210	60	28	16	95	12	4
20	25	16	727 701 207	0.250	70	34	16	105	12	4
25	32	16	727 701 208	0.420	79	42	16	115	16	4
32	40	16	727 701 209	0.670	89	51	16	140	16	4
40	50	16	727 701 210	0.860	98	62	16	150	18	4
50	63	16	727 701 211	0.930	121	78	19	165	18	4
65	75	16	727 701 212	1.340	140	92	19	185	18	4
80	90	16	727 701 213	1.550	152	110	19	200	20	4
100	110	16	727 701 214	1.810	190	133	19	229	20	8

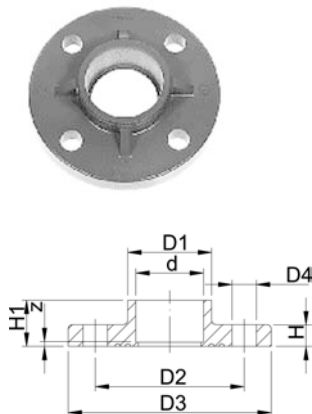
27 30 10
27 40 10

Fixed Flanges, PP-H metric Jointing face flat

Model:

- Material: PP-H
- With fusion socket metric
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

AL: number of holes



d [mm]	DN [mm]	Inch	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL	z [mm]
20	15	1/2	10	727 730 106	0.069	27	65	94	14	12	19	4	5
25	20	3/4	10	727 730 107	0.094	33	75	103	14	13	21	4	5
32	25	1	10	727 730 108	0.129	40	85	115	14	14	23	4	5
40	32	1 1/4	10	727 730 109	0.203	50	100	138	18	15	25	4	5
50	40	1 1/2	10	727 730 110	0.246	61	110	148	18	16	27	4	5
63	50	2	10	727 730 111	0.330	76	125	163	18	18	31	4	5

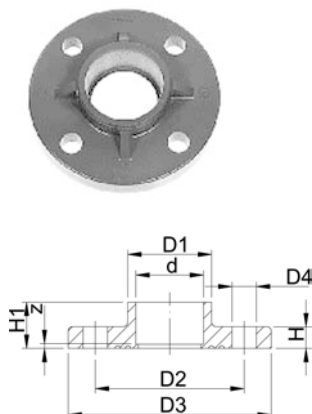
27 30 10
27 40 10

Fixed Flanges, PP-H metric Combined jointing face: flat and serrated

Model:

- Material: PP-H
- With fusion socket metric
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

AL: number of holes



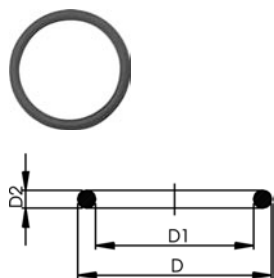
d [mm]	DN [mm]	Inch	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL	z [mm]
20	15	1/2	10	727 740 106	0.065	27	65	94	14	12	19	4	5
25	20	3/4	10	727 740 107	0.083	33	75	103	14	13	21	4	5
32	25	1	10	727 740 108	0.117	40	85	115	14	14	23	4	5
40	32	1 1/4	10	727 740 109	0.175	50	100	138	18	15	25	4	5
50	40	1 1/2	10	727 740 110	0.212	61	110	148	18	16	27	4	5
63	50	2	10	727 740 111	0.330	76	125	163	18	18	31	4	5

EPDM 48 41 00
FPM 49 41 00

O-Ring gasket














Model:







- For Flange Adaptors
- Hardness approx. 65° Shore



d [mm]	DN [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
20	15	748 410 001	749 410 001	0.002	31	23	3.53
25	20	748 410 007	749 410 007	0.002	35	28	3.53
32	25	748 410 002	749 410 002	0.003	43	36	3.53
40	32	748 410 003	749 410 003	0.007	55	44	5.34
50	40	748 410 012	749 410 012	0.008	64	53	5.34
63	50	748 410 013	749 410 013	0.011	80	69	5.34
75	65	748 410 014	749 410 014	0.012	93	82	5.34
90	80	748 410 015	749 410 015	0.015	112	101	5.34
110	100	748 410 016	749 410 016	0.031	134	120	6.99

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Hand-Operated Valves

General Information

Material

The material PP-H conforms with the corresponding recommendations of the German Federal board of Health.

Standards

All the main dimensions, such as nominal bore, z dimensions, socket depth and diameter, are in accordance with ISO Recommendations, ISO Draft Resolutions for millimetre pipes and DIN 3442.

Fusion joints
EN 558-1 DIN 3442

Thread joint	Flange joint	
ISO 7/1 DIN 2999 BSI 21	DIN 2501/8063	on request ANSI B 16.5 JIS

Jointing

Fusion jointing:
Pipes with outside diameter tolerances in accordance with DIN 8077 can be readily jointed with GF Piping Systems Valves.

Threaded joint:
BSP parallel female threads are in accordance with ISO 7/1 or DIN 2999. Threaded plastic Valves should be jointed to plastics pipe or to other plastics parts. Jointing to metal pipe or fittings is permissible only where there is little stress, and should be carried out with great care.

Nominal Pressure

see column PN

Marking

GF Piping Systems valves are marked as follows:

- +GF+
- pipe o.d.
- pipe nominal bore
- material
- pressure rating: PN ...

Overall length

When used with flange adaptors or union ends from GF Piping Systems, the lengths of valves correspond to EN 558-1 (org. DIN 3202) or VSM standard 19431 and NFE 29492.

Dimensions

All dimensions are given in mm.

Information Service

For detailed information see our Catalogue "Plastic Piping Systems".

Quality control conforming to DIN 3442, Part 1

The function and tightness of every valve are factory-tested. Testing is carried out with air under water.

Orders

Always quote the GF Piping Systems code number when placing orders.

Ordering example

8 ball valves 167 346 005

Ball Valves 546

Ball valve type 546 PP-H With mounting inserts With fusion sockets metric



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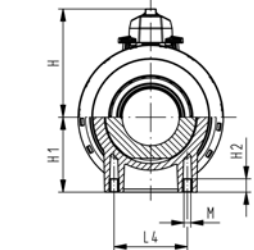
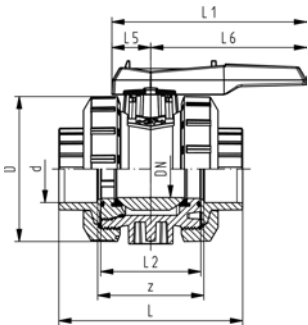
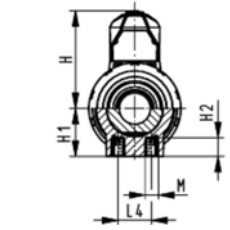
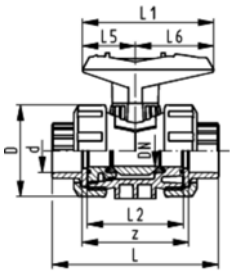


Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

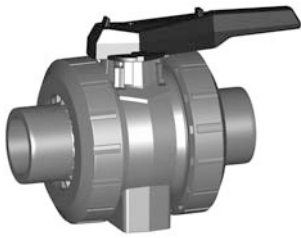


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	71	167 546 401	167 546 411	0.115
20	15	10	185	167 546 402	167 546 412	0.115
25	20	10	350	167 546 403	167 546 413	0.180
32	25	10	700	167 546 404	167 546 414	0.255
40	32	10	1000	167 546 405	167 546 415	0.440
50	40	10	1600	167 546 406	167 546 416	0.610
63	50	10	3100	167 546 407	167 546 417	1.145
75	65	10	5000	167 546 408	167 546 418	3.700
90	80	10	7000	167 546 409	167 546 419	5.500
110	100	10	11000	167 546 410	167 546 420	8.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
16	50	57	27	12	93	77	56	25	32	45	M6	67
20	50	57	27	12	95	77	56	25	32	45	M6	66
25	58	67	30	12	109	97	65	25	39	58	M6	77
32	68	73	36	12	119	97	71	25	39	58	M6	83
40	84	90	44	15	135	128	85	45	54	74	M8	99
50	97	97	51	15	147	128	89	45	54	74	M8	105
63	124	116	64	15	168	152	101	45	66	87	M8	117
75	166	149	85	15	233	270	136	70	64	206	M8	167
90	200	161	105	15	254	270	141	70	64	206	M8	180
110	238	178	123	22	301	320	164	120	64	256	M12	215



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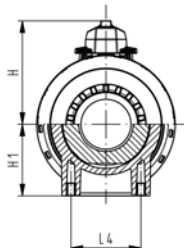
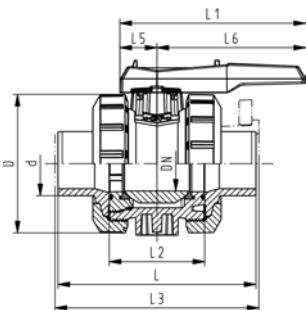
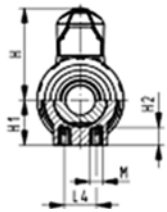
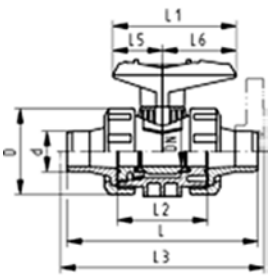
Ball valve type 546 PP-H With mounting inserts With socket fusion spigots metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

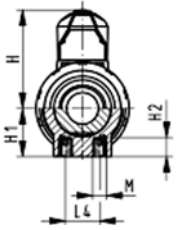
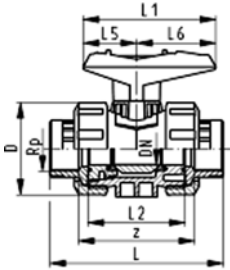


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	71	167 546 041	167 546 051	0.120
20	15	10	185	167 546 042	167 546 052	0.120
25	20	10	350	167 546 043	167 546 053	0.180
32	25	10	700	167 546 044	167 546 054	0.260
40	32	10	1000	167 546 045	167 546 055	0.450
50	40	10	1600	167 546 046	167 546 056	0.640
63	50	10	3100	167 546 047	167 546 057	1.210
75	65	10	5000	167 546 048	167 546 058	3.800
90	80	10	7000	167 546 049	167 546 059	5.600
110	100	10	11000	167 546 050	167 546 060	8.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M
16	50	57	27	12	110	77	56		25	32	45	M6
20	50	57	27	12	120	77	56	130	25	32	45	M6
25	58	67	30	12	139	97	65	150	25	39	58	M6
32	68	73	36	12	150	97	71	160	25	39	58	M6
40	84	90	44	15	170	128	85	180	45	54	74	M8
50	97	97	51	15	190	128	89	200	45	54	74	M8
63	124	116	64	15	220	152	101	230	45	66	87	M8
75	166	149	85	15	280	270	136	290	70	64	206	M8
90	200	161	105	15	296	270	141	310	70	64	206	M8
110	238	178	123	22	336	320	164	350	120	64	256	M12



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Ball valve type 546 PP-H With mounting inserts With threaded sockets Rp

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

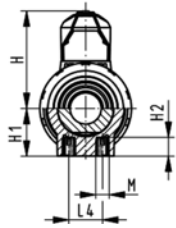
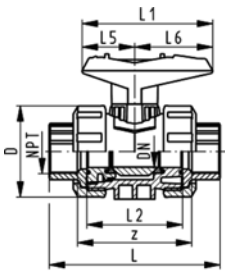
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	71	167 546 021	167 546 031	0.120
1/2	15	10	185	167 546 022	167 546 032	0.120
3/4	20	10	350	167 546 023	167 546 033	0.180
1	25	10	700	167 546 024	167 546 034	0.270
1 1/4	32	10	1000	167 546 025	167 546 035	0.460
1 1/2	40	10	1600	167 546 026	167 546 036	0.635
2	50	10	3100	167 546 027	167 546 037	1.190

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	57	27	12	96	77	56	25	32	45	M6	69
1/2	50	57	27	12	99	77	56	25	32	45	M6	67
3/4	58	67	30	12	111	97	65	25	39	58	M6	78
1	68	73	36	12	127	97	71	25	39	58	M6	85
1 1/4	84	90	44	15	146	128	85	45	54	74	M8	100
1 1/2	97	97	51	15	157	128	89	45	54	74	M8	106
2	124	116	64	15	183	152	101	45	66	87	M8	121



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Ball valve type 546 PP-H With mounting inserts With threaded sockets NPT

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

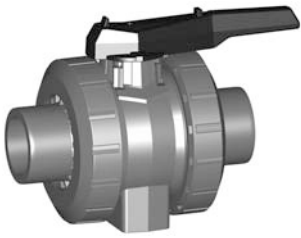
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	71	167 546 321	167 546 331	0.120
1/2	15	10	185	167 546 322	167 546 332	0.120
3/4	20	10	350	167 546 323	167 546 333	0.180
1	25	10	700	167 546 324	167 546 334	0.270
1 1/4	32	10	1000	167 546 325	167 546 335	0.460
1 1/2	40	10	1600	167 546 326	167 546 336	0.635
2	50	10	3100	167 546 327	167 546 337	1.190

NPT [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
3/8	50	57	27	12	96	77	56	25	32	45	M6	71
1/2	50	57	27	12	99	77	56	25	32	45	M6	64
3/4	58	67	30	12	111	97	65	25	39	58	M6	76
1	68	73	36	12	127	97	71	25	39	58	M6	83
1 1/4	84	90	44	15	146	128	85	45	54	74	M8	100
1 1/2	97	97	51	15	157	128	89	45	54	74	M8	111
2	124	116	64	15	183	152	101	45	66	87	M8	134



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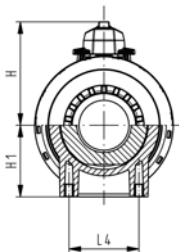
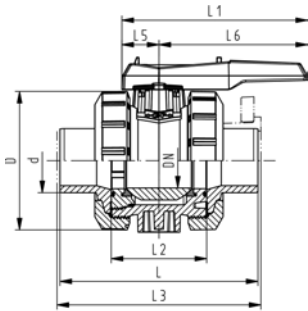
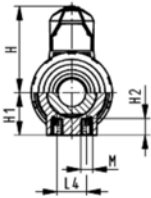
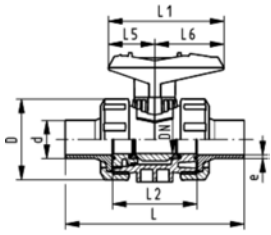
Ball valve type 546 PP-H With mounting inserts With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

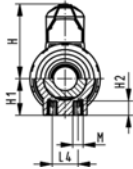
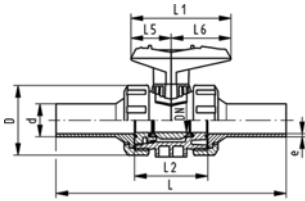


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	167 546 442	167 546 452	0.120
25	20	10	350	167 546 443	167 546 453	0.180
32	25	10	700	167 546 444	167 546 454	0.255
40	32	10	1000	167 546 445	167 546 455	0.440
50	40	10	1600	167 546 446	167 546 456	0.620
63	50	10	3100	167 546 447	167 546 457	1.200
75	65	10	5000	167 546 448	167 546 458	3.800
90	80	10	7000	167 546 449	167 546 459	5.500
110	100	10	11000	167 546 450	167 546 460	8.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
20	50	57	27	12	130	77	56	25	32	45	M6	1,9
25	58	67	30	12	143	97	65	25	39	58	M6	2,3
32	68	73	36	12	150	97	71	25	39	58	M6	2,9
40	84	90	44	15	171	128	85	45	54	74	M8	3,7
50	97	97	51	15	191	128	89	45	54	74	M8	4,6
63	124	116	64	15	220	152	101	45	66	87	M8	5,8
75	166	149	85	15	266	270	136	70	64	206	M8	6,8
90	200	161	105	15	264	270	141	70	64	206	M8	8,2
110	238	178	123	22	301	320	164	120	64	256	M12	10,0



DN10/15 - 50



Ball valve type 546 PP-H With mounting inserts With butt fusion spigots long SDR11 metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
20	15	10	185	167 546 262	167 546 272	0.130	
25	20	10	350	167 546 263	167 546 273	0.195	
32	25	10	700	167 546 264	167 546 274	0.280	
40	32	10	1000	167 546 265	167 546 275	0.480	
50	40	10	1600	167 546 266	167 546 276	0.700	
63	50	10	3100	167 546 267	167 546 277	1.320	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	
20	50	57	27	12	193	77	56	25	32	45	M6	2,3	
25	58	67	30	12	216	97	65	25	39	58	M6	2,3	
32	68	73	36	12	223	97	71	25	39	58	M6	2,9	
40	84	90	44	15	249	128	85	45	54	74	M8	3,7	
50	97	97	51	15	271	128	89	45	54	74	M8	4,6	
63	124	116	64	15	321	152	101	45	66	87	M8	5,8	



DN10/15 - 50



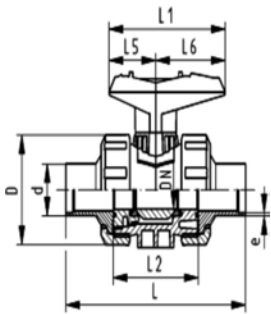
Ball valve type 546 PP-H With mounting inserts With butt fusion spigots SDR17.6 metric

Model:

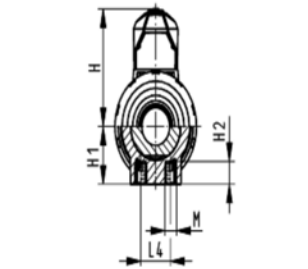
- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

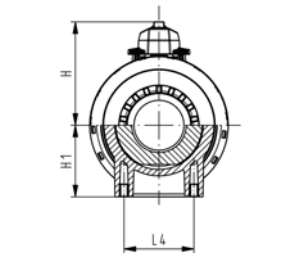
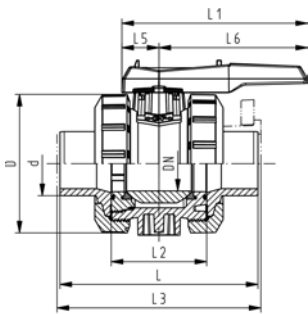
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
50	40	6	1600	167 546 066	167 546 076	0.635
63	50	6	3100	167 546 067	167 546 077	1.200
75	65	6	5000	167 546 068	167 546 078	3.800
90	80	6	7000	167 546 069	167 546 079	5.500
110	100	6	11000	167 546 070	167 546 080	8.600

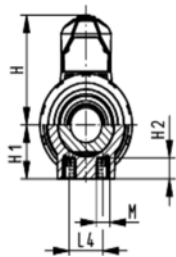
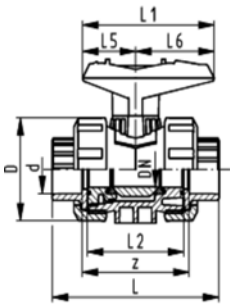


d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
50	97	97	51	15	191	128	89	45	54	74	M8	2,9
63	124	116	64	15	220	152	101	45	66	87	M8	3,6
75	166	149	85	15	266	270	136	70	64	206	M8	4,7
90	200	161	105	15	264	270	141	70	64	206	M8	5,5
110	238	178	123	22	301	320	164	120	64	256	M12	6,8





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Ball valve type 546 PP-H With mounting inserts With fusion sockets PE100 metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
16	10	10	71	167 546 161	167 546 171	0.120	
20	15	10	185	167 546 162	167 546 172	0.120	
25	20	10	350	167 546 163	167 546 173	0.180	
32	25	10	700	167 546 164	167 546 174	0.260	
40	32	10	1000	167 546 165	167 546 175	0.450	
50	40	10	1600	167 546 166	167 546 176	0.630	
63	50	10	3100	167 546 167	167 546 177	1.195	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]	
16	50	57	27	12	93	77	56	25	32	45	M6	67	
20	50	57	27	12	95	77	56	25	32	45	M6	67	
25	58	67	30	12	109	97	65	25	39	58	M6	77	
32	68	73	36	12	119	97	71	25	39	58	M6	83	
40	84	90	44	15	135	128	85	45	54	74	M8	99	
50	97	97	51	15	147	128	89	45	54	74	M8	105	
63	124	116	64	15	168	152	101	45	66	87	M8	113	



DN10/15 - 50

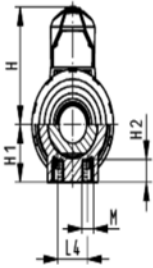
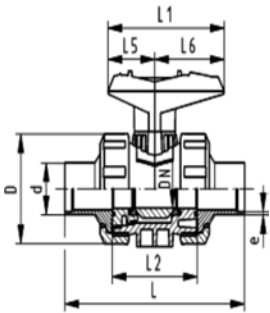
Ball valve type 546 PP-H With mounting inserts With butt fusion spigots PE100 SDR11 metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	167 546 142	167 546 152	0.120
25	20	10	350	167 546 143	167 546 153	0.180
32	25	10	700	167 546 144	167 546 154	0.255
40	32	10	1000	167 546 145	167 546 155	0.440
50	40	10	1600	167 546 146	167 546 156	0.620
63	50	10	3100	167 546 147	167 546 157	1.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
20	50	57	27	12	130	77	56	130	25	32	45	M6	1,9
25	58	67	30	12	143	97	65	150	25	39	58	M6	2,3
32	68	73	36	12	150	97	71	160	25	39	58	M6	2,9
40	84	90	44	15	171	128	85	180	45	54	74	M8	3,7
50	97	97	51	15	191	128	89	200	45	54	74	M8	4,6
63	124	116	64	15	220	152	101	230	45	66	87	M8	5,8

Ball valve type 546 PP-H

With mounting inserts

With butt fusion spigots long PE100 SDR11 metric



DN10/15 - 50

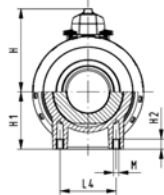
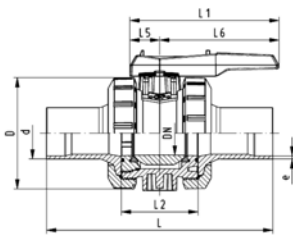
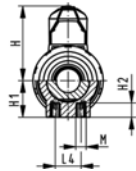
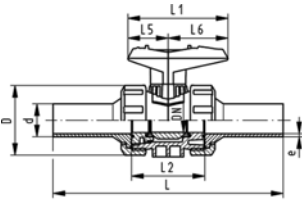


Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	167 546 282	167 546 292	0.130
25	20	10	350	167 546 283	167 546 293	0.195
32	25	10	700	167 546 284	167 546 294	0.280
40	32	10	1000	167 546 285	167 546 295	0.485
50	40	10	1600	167 546 286	167 546 296	0.695
63	50	10	3100	167 546 287	167 546 297	1.320
75	65	10	5000	167 546 288	167 546 298	3.900
90	80	10	7000	167 546 289	167 546 299	5.900
110	100	10	11000	167 546 290	167 546 300	9.300

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
20	50	57	27	12	193	77	56	25	32	45	M6	2,3
25	58	67	30	12	216	97	65	25	39	58	M6	2,3
32	68	73	36	12	223	97	71	25	39	58	M6	2,9
40	84	90	44	15	249	128	85	45	54	74	M8	3,7
50	97	97	51	15	271	128	89	45	54	74	M8	4,6
63	124	116	64	15	321	152	101	45	66	87	M8	5,8
75	166	149	85	15	386	270	136	70	64	206	M8	6,8
90	200	161	105	15	421	270	141	70	64	206	M8	8,2
110	238	178	123	22	484	320	164	120	64	256	M12	10,0



DN10/15 - 50

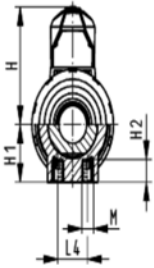
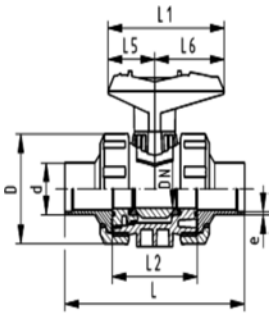
Ball valve type 546 PP-H With mounting inserts With butt fusion spigots PE100 SDR17.6 metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

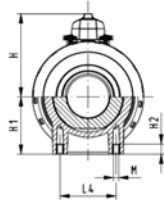
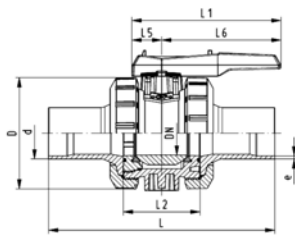
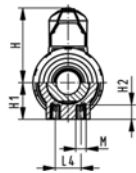
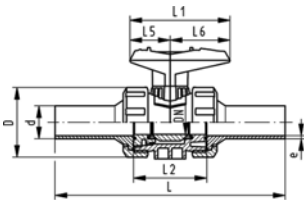


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
50	40	6	1600	167 546 126	167 546 136	0.620	
63	50	6	3100	167 546 127	167 546 137	1.200	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]	
50	97	97	51	15	191	128	89	45	54	74	M8	2,9	
63	124	116	64	15	220	152	101	45	66	87	M8	3,6	



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PROGEF Standard Ball valve type 546 With mounting inserts With butt fusion spigots long PE100 SDR17,6 metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	167 546 308	167 546 318	3.900
90	80	10	7000	167 546 309	167 546 319	5.800
110	100	10	11000	167 546 310	167 546 320	9.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
75	166	149	85	15	386	270	136	70	64	206	8	4.3
90	200	161	105	15	421	270	141	70	64	206	8	5.1
110	238	178	123	22	484	320	164	120	64	256	12	6.3



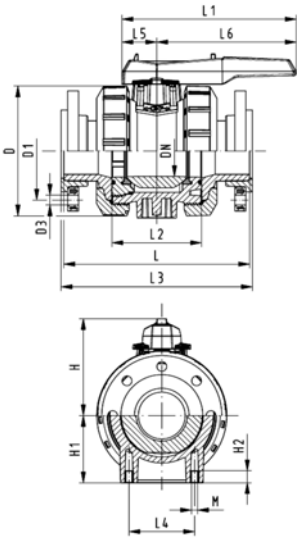
PROGEF Standard Ball valve type 546 With mounting inserts With backing flanges PP-st metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

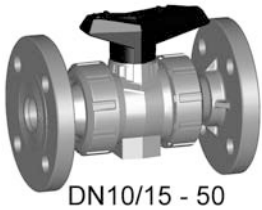
Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

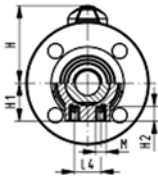
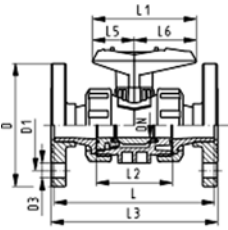


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	167 546 808	167 546 818	4.300
90	80	10	7000	167 546 809	167 546 819	6.400
110	100	10	11000	167 546 810	167 546 820	10.000

d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M
75	166	145	18	280	270	136	290	70	64	206	149	85	8
90	200	160	18	296	270	141	310	70	64	206	161	105	8
110	238	180	18	336	320	164	350	120	64	256	178	123	12



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PROGEF Standard Ball valve type 546 With mounting inserts With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are not compatible with type 346
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	167 546 182	167 546 192	0.245
25	20	¾	10	350	167 546 183	167 546 193	0.345
32	25	1	10	700	167 546 184	167 546 194	0.495
40	32	1 ¼	10	1000	167 546 185	167 546 195	0.830
50	40	1 ½	10	1600	167 546 186	167 546 196	1.100
63	50	2	10	3100	167 546 187	167 546 197	1.830

d [mm]	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M
20	95	65	14	57	27	12	120	77	56	130	25	32	45	M6
25	105	75	14	67	30	12	140	97	65	150	25	39	58	M6
32	115	85	14	73	36	12	150	97	71	160	25	39	58	M6
40	140	100	18	90	44	15	170	128	85	180	45	54	74	M8
50	150	110	18	97	51	15	190	128	89	200	45	54	74	M8
63	165	125	18	116	64	15	220	152	101	230	45	66	87	M8



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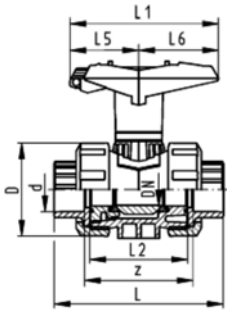
Ball valve type 546 PP-H With lockable handle With fusion sockets metric

Model:

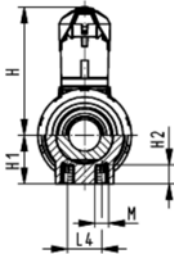
- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Lockable hand lever with ratchet settings

Option:

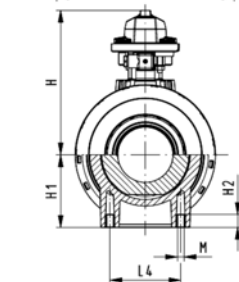
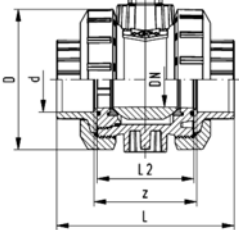
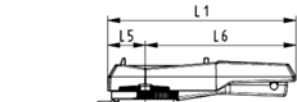
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	71	167 546 421	167 546 431	0.125
20	15	10	185	167 546 422	167 546 432	0.125
25	20	10	350	167 546 423	167 546 433	0.195
32	25	10	700	167 546 424	167 546 434	0.270
40	32	10	1000	167 546 425	167 546 435	0.465
50	40	10	1600	167 546 426	167 546 436	0.635
63	50	10	3100	167 546 427	167 546 437	1.175
75	65	10	5000	167 546 428	167 546 438	4.000
90	80	10	7000	167 546 429	167 546 439	5.900
110	100	10	11000	167 546 430	167 546 440	9.100



d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
16	50	79	27	12	93	77	56	25	32	45	M6	67
20	50	79	27	12	95	77	56	25	32	45	M6	66
25	58	88	30	12	109	97	65	25	39	58	M6	77
32	68	94	36	12	119	97	71	25	39	58	M6	83
40	84	113	44	15	135	128	85	45	54	74	M8	99
50	97	119	51	15	147	128	89	45	54	74	M8	105
63	124	141	64	15	168	152	101	45	66	87	M8	117
75	166	224	85	15	233	270	136	70	64	206	M8	167
90	200	235	105	15	254	270	141	70	64	206	M8	180
110	238	245	123	22	301	320	164	120	64	256	M12	215



Ball valve type 546 PP-H With lockable handle With butt fusion spigots IR-Plus SDR11 metric



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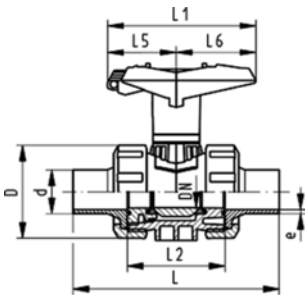


Model:

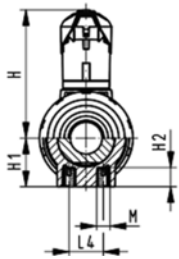
- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Lockable hand lever with ratchet settings

Option:

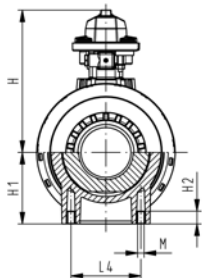
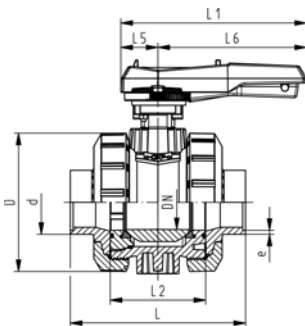
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	167 546 462	167 546 472	0.130
25	20	10	350	167 546 463	167 546 473	0.195
32	25	10	700	167 546 464	167 546 474	0.270
40	32	10	1000	167 546 465	167 546 475	0.465
50	40	10	1600	167 546 466	167 546 476	0.645
63	50	10	3100	167 546 467	167 546 477	1.230
75	65	10	5000	167 546 468	167 546 478	4.100
90	80	10	7000	167 546 469	167 546 479	5.900
110	100	10	11000	167 546 470	167 546 480	9.000

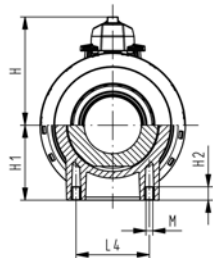
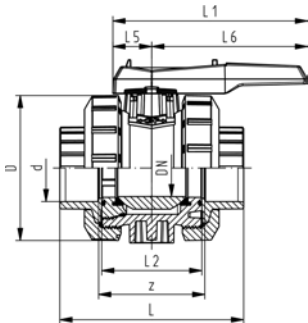
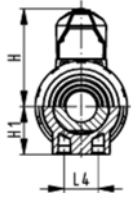
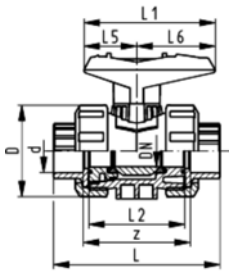
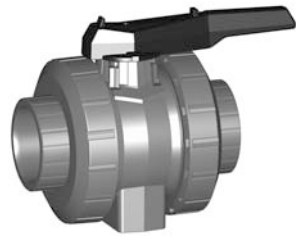


d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
20	50	79	27	12	130	87	56	25	42	45	M6	1,9
25	58	88	30	12	143	108	65	25	50	58	M6	2,3
32	68	94	36	12	150	108	71	25	50	58	M6	2,9
40	84	113	44	15	171	140	85	45	66	75	M8	3,7
50	97	119	51	15	191	140	89	45	66	75	M8	4,6
63	124	141	64	15	220	165	101	45	78	87	M8	5,8
75	166	149	85	15	266	270	136	70	64	206	M8	6,8
90	200	161	105	15	264	270	141	70	64	206	M8	8,2
110	238	178	123	22	301	320	164	120	64	256	M12	10,0





DN10/15 - 50



Ball valve type 546 PP-H With fusion sockets metric

Model:

- Material: PP-H
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Ball seals PTFE
- Without mounting inserts

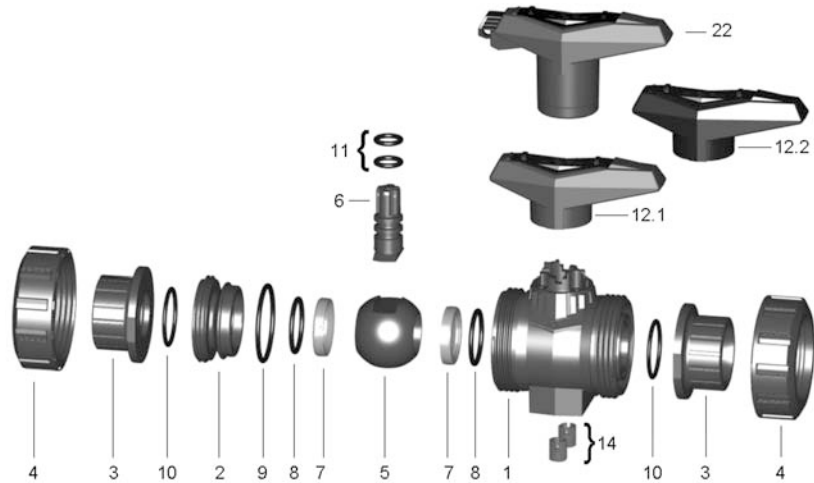
Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	71	167 546 001	167 546 011	0.115
20	15	10	185	167 546 002	167 546 012	0.115
25	20	10	350	167 546 003	167 546 013	0.180
32	25	10	700	167 546 004	167 546 014	0.255
40	32	10	1000	167 546 005	167 546 015	0.440
50	40	10	1600	167 546 006	167 546 016	0.610
63	50	10	3100	167 546 007	167 546 017	1.145
75	65	10	5000	167 546 008	167 546 018	3.700
90	80	10	7000	167 546 009	167 546 019	5.500
110	100	10	11000	167 546 010	167 546 020	8.700

d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	z [mm]
16	50	57	27	93	77	56	25	32	45	67
20	50	57	27	95	77	56	25	32	45	66
25	58	67	30	109	97	65	25	39	58	77
32	68	73	36	119	97	71	25	39	58	83
40	84	90	44	135	128	85	45	54	74	99
50	97	97	51	147	128	89	45	54	74	105
63	124	116	64	168	152	101	45	66	87	117
75	166	149	85	233	270	136	70	64	206	167
90	200	161	105	254	270	141	70	64	206	180
110	238	178	123	301	320	164	120	64	256	215

Spare parts ball valve type 546



Central part

Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 486 151	161 486 163	163 481 251	163 481 263	169 480 751
20	1/2	15	161 486 151	161 486 163	163 481 251	163 481 263	169 480 751
25	3/4	20	161 486 152	161 486 164	163 481 252	163 481 264	169 480 752
32	1	25	161 486 153	161 486 165	163 481 253	163 481 265	169 480 753
40	1 1/4	32	161 486 154	161 486 166	163 481 254	163 481 266	169 480 754
50	1 1/2	40	161 486 155	161 486 167	163 481 255	163 481 267	169 480 755
63	2	50	161 486 156	161 486 168	163 481 256	163 481 268	169 480 756
75	2 1/2	65	161 486 157	161 486 169	163 481 257	163 481 269	169 480 757
90	3	80	161 486 158	161 486 170	163 481 258	163 481 270	169 480 758
110	4	100	161 486 159	161 486 171	163 481 259	163 481 271	169 480 759

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
16	3/8	10	167 482 876	167 482 888	175 482 963	0.120
20	1/2	15	167 482 876	167 482 888	175 482 963	0.120
25	3/4	20	167 482 877	167 482 889	175 482 964	0.185
32	1	25	167 482 878	167 482 890	175 482 965	0.260
40	1 1/4	32	167 482 879	167 482 891	175 482 966	0.480
50	1 1/2	40	167 482 880	167 482 892	175 482 967	0.610
63	2	50	167 482 881	167 482 893	175 482 968	1.115
75	2 1/2	65	167 482 882	167 482 894	-	2.450
90	3	80	167 482 883	167 482 895	-	3.530
110	4	100	167 482 884	167 482 896	-	5.580



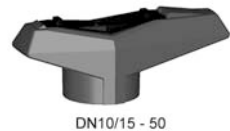
Ball set

Model:

- Ball seals standard in PTFE
- Ball set consisting of: ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 486 375	161 486 385	163 481 375	163 481 385	169 480 900
20	1/2	15	161 486 375	161 486 385	163 481 375	163 481 385	169 480 900
25	3/4	20	161 486 376	161 486 386	163 481 376	163 481 386	169 480 901
32	1	25	161 486 377	161 486 387	163 481 377	163 481 387	169 480 902
40	1 1/4	32	161 486 378	161 486 388	163 481 378	163 481 388	169 480 903
50	1 1/2	40	161 486 379	161 486 389	163 481 379	163 481 389	169 480 904
63	2	50	161 486 380	161 486 390	163 481 380	163 481 390	169 480 905
75	2 1/2	65	161 486 381	161 486 391	163 481 381	163 481 391	169 480 906
90	3	80	161 486 382	161 486 392	163 481 382	163 481 392	169 480 907
110	4	100	161 486 383	161 486 393	163 481 383	163 481 393	169 480 908

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
16	3/8	10	167 484 125	167 484 135	175 483 275	0.020
20	1/2	15	167 484 125	167 484 135	175 483 275	0.020
25	3/4	20	167 484 126	167 484 136	175 483 276	0.030
32	1	25	167 484 127	167 484 137	175 483 277	0.055
40	1 1/4	32	167 484 128	167 484 138	175 483 278	0.105
50	1 1/2	40	167 484 129	167 484 139	175 483 279	0.160
63	2	50	167 484 130	167 484 140	175 483 280	0.310
75	2 1/2	65	167 484 131	167 484 141	-	0.345
90	3	80	167 484 132	167 484 142	-	0.539
110	4	100	167 484 133	167 484 143	-	0.893



Lever

d [mm]	Inch	DN [mm]	Standard lever red Code	Standard lever black Code	Multifunctional lever Code	kg
16	3/8	10	167 484 088	167 484 076	167 484 100	0.026
20	1/2	15	167 484 088	167 484 076	167 484 100	0.026
25	3/4	20	167 484 089	167 484 077	167 484 101	0.045
32	1	25	167 484 090	167 484 078	167 484 102	0.045
40	1 1/4	32	167 484 091	167 484 079	167 484 103	0.082
50	1 1/2	40	167 484 092	167 484 080	167 484 104	0.082
63	2	50	167 484 093	167 484 081	167 484 105	0.104
75	2 1/2	65	167 484 094	167 484 082	161 486 689	0.480
90	3	80	167 484 095	167 484 083	161 486 690	0.480
110	4	100	167 484 096	167 484 084	161 486 691	0.480



Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 059	749 410 059	0.002
20	1/2	15	748 410 059	749 410 059	0.002
25	3/4	20	748 410 106	749 410 106	0.002
32	1	25	748 410 151	749 410 151	0.002
40	1 1/4	32	748 410 062	749 410 062	0.005
50	1 1/2	40	748 410 003	749 410 003	0.007
63	2	50	748 410 231	749 410 231	0.002

table continued next page

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
75	2 ½	65	748 410 119	749 410 119	0.010
90	3	80	748 410 023	749 410 023	0.012
110	4	100	748 410 254	749 410 254	0.030

Seal set

Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	¾	10	161 486 400	161 486 410	0.003
20	½	15	161 486 400	161 486 410	0.003
25	¾	20	161 486 401	161 486 411	0.005
32	1	25	161 486 402	161 486 412	0.006
40	1 ¼	32	161 486 403	161 486 413	0.010
50	1 ½	40	161 486 404	161 486 414	0.023
63	2	50	161 486 405	161 486 415	0.031
75	2 ½	65	161 486 406	161 486 416	0.024
90	3	80	161 486 407	161 486 417	0.034
110	4	100	161 486 408	161 486 418	0.058



Component Parts for Flange Assembly Ball Valves Type 546

27 79 02

PROGEF Standard flange adaptor Jointing face flat/serrated

d [mm]	DN [mm]	PN	Code	kg
20	15	10	727 790 206	0.011
25	20	10	727 790 207	0.022
32	25	10	727 790 208	0.033
40	32	10	727 790 209	0.046
50	40	10	727 790 210	0.062
63	50	10	727 790 211	0.090
75	65	10	727 790 212	0.163
90	80	10	727 790 213	0.233
110	100	10	727 790 214	0.319

EPDM 48 44 07
FPM 49 44 07

Profile flange gasket metric

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	16	748 440 705	749 440 705	0.007
20	15	16	748 440 706	749 440 706	0.008
25	20	16	748 440 707	749 440 707	0.011
32	25	16	748 440 708	749 440 708	0.014
40	32	16	748 440 709	749 440 709	0.021
50	40	16	748 440 710	749 440 710	0.022
63	50	16	748 440 711	749 440 711	0.041
75	65	16	748 440 712	749 440 712	0.055
90	80	16	748 440 713	749 440 713	0.062
110	100	16	748 440 714	749 440 714	0.085
125	100	16	748 440 715	749 440 715	0.158
140	125	16	748 440 716	749 440 716	0.118
160 / 180	150	16	748 440 717	749 440 717	0.153
200	200	16	748 440 719	749 440 719	0.263
225	200	16	748 440 720	749 440 720	0.181
250	250	16	748 440 721	749 440 721	0.410
280	250	16	748 440 722	749 440 722	0.226
315	300	16	748 440 723	749 440 723	0.334
355	350	16	748 440 724	749 440 724	0.410
400	400	16	748 440 725	749 440 725	0.513
450	500	16	748 440 726	749 440 726	0.718
500	500	16	748 440 727	749 440 727	0.718
560	600	16	748 440 728	749 440 728	0.923
630	600	16	748 440 729	749 440 729	0.923

27 70 04
27 70 05

Backing flange PP-V For socket systems metric

d [mm]	Inch	DN [mm]	PN	Code	kg
20		15	16	727 700 406	0.080
25		20	16	727 700 407	0.100
32		25	16	727 700 408	0.140
40		32	16	727 700 409	0.220
50		40	16	727 700 410	0.210
63		50	16	727 700 411	0.380
75		65	16	727 700 412	0.480
90		80	16	727 700 413	0.520
110		100	16	727 700 414	0.680

27 30 10
27 40 10

Fixed flange PP-H metric Jointing face flat

d [mm]	DN [mm]	Inch	PN	Code	kg
20	15	1/2	10	727 730 106	0.069
25	20	3/4	10	727 730 107	0.094
32	25	1	10	727 730 108	0.129
40	32	1 1/4	10	727 730 109	0.203
50	40	1 1/2	10	727 730 110	0.246
63	50	2	10	727 730 111	0.330

27 30 10
27 40 10

Fixed flange PP-H metric Combined jointing face: flat and serrated

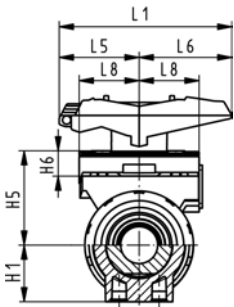
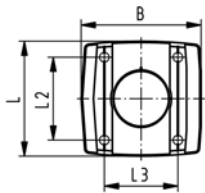
d [mm]	DN [mm]	Inch	PN	Code	kg
20	15	1/2	10	727 740 106	0.065
25	20	3/4	10	727 740 107	0.083
32	25	1	10	727 740 108	0.117
40	32	1 1/4	10	727 740 109	0.175
50	40	1 1/2	10	727 740 110	0.212
63	50	2	10	727 740 111	0.330

Accessories for Ball Valve 546

Multifunctional module (I02) PP-GF Module empty



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Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100
- The multifunctional module from d75 - d110 has a master gauge F07 according to EN ISO 5211.

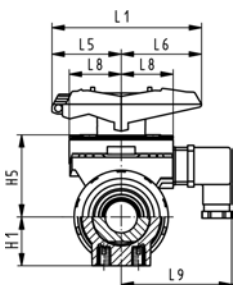
d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg
16 - 20	3/8 - 1/2	10 - 15	167 482 680	0.055
25 - 32	3/4 - 1	20 - 25	167 482 681	0.070
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 682	0.080
- 63	2	- 50	167 482 683	0.120
75 - 90	2 1/2 - 3	65 - 80	167 482 684	0.135
- 110	4	- 100	167 482 685	0.175

d-d [mm]	B [mm]	H1 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L5 [mm]	L6 [mm]	L8 [mm]
16 - 20	67	27	50	17	72	87	54	40	42	45	34
25 - 32	75	30	53	16	72	108	52	46	50	58	38
40 - 50	81	44	72	16	80	140	60	50	66	75	41
- 63	91	64	94	19	93	165	68	65	78	87	46
75 - 90	90	85	157	23	85	270			64	206	
- 110	106	123	175	23	97	320			64	256	

Multifunctional module (I03) PP-GF With mechanical limit switches Ag Ni



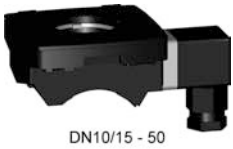
DN10/15 - 50



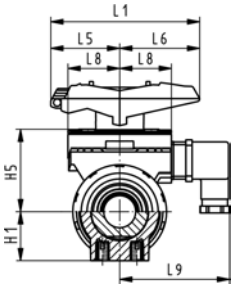
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 626	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 627	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 628	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 629	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 630	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 631	0.480	123	175	320	64	256		



DN10/15 - 50

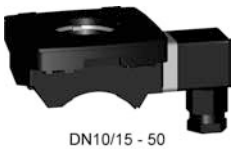


Multifunctional module (I04) PP-GF With mechanical limit switches Au

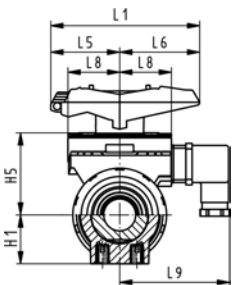
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 635	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 636	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 637	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 638	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 639	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 640	0.480	123	175	320	64	256		



DN10/15 - 50



Multifunctional module (I05) PP-GF With inductive limit switches Namur

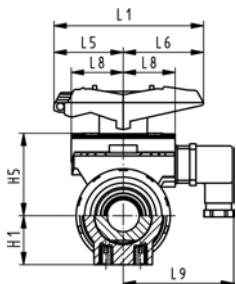
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 671	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 672	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 673	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 674	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 675	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 676	0.480	123	175	320	64	256		



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Multifunctional module (I06) PP-GF With inductive limit switches PNP

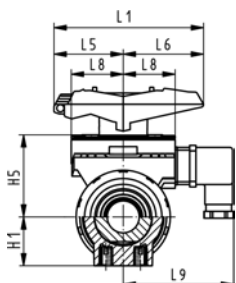
Model:

- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 662	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 663	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 664	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 665	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 666	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 667	0.480	123	175	320	64	256		



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Multifunctional module (I07) PP-GF With inductive limit switches NPN

Model:

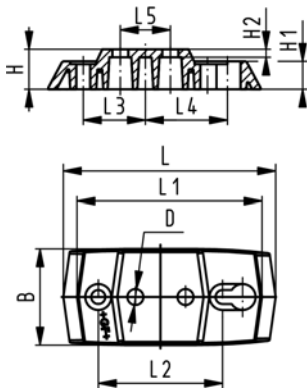
- Accessory to Ball Valve Type 546
- Multifunctional module acts as an intermediate element for actuators
- For operation with handle, multifunctional handle has to be ordered separately.
- Including Plug 3P+E / Protection: IP65
- Including screws to mount the module and stainless steel coupling piece (V2A) for dimension DN65-100

d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg	H1 [mm]	H5 [mm]	L1 [mm]	L5 [mm]	L6 [mm]	L8 [mm]	L9 [mm]
16 - 20	3/8 - 1/2	10 - 15	167 482 653	0.110	27	50	87	42	45	34	73
25 - 32	3/4 - 1	20 - 25	167 482 654	0.120	30	53	108	50	58	38	77
40 - 50	1 1/4 - 1 1/2	32 - 40	167 482 655	0.135	44	72	140	66	75	41	80
- 63	2	- 50	167 482 656	0.175	64	94	165	78	87	46	85
75 - 90	2 1/2 - 3	65 - 80	167 482 657	0.460	85	157	270	64	206		
- 110	4	- 100	167 482 658	0.480	123	175	320	64	256		



Mounting plate 546 PP-GF (L02)

- 2 mounting screws inclusive



d-d [mm]	Inch [inch]	DN-DN [mm]	Code	kg
16 - 32	¾ - 1	10 - 25	167 484 110	0.055
40 - 63	1 ¼ - 2	32 - 50	167 484 111	0.086

d-d [mm]	B [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]
16 - 32	48	8	20	14	4	106	92	62	31	41	25
40 - 63	54	9	20	14	4	149	134	104	52	62	45

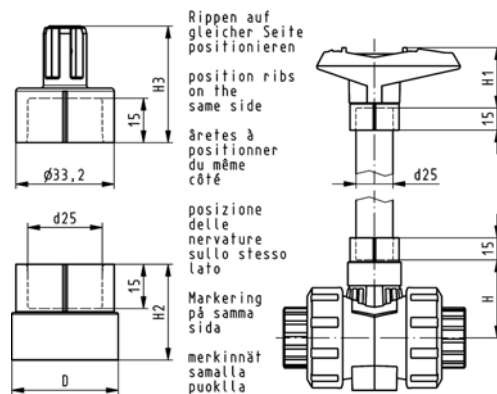
Handle extension 546 PVC-U metric

Model:

- For ball valve type 546 and 543
- Composed of adapter sockets for handle connection and stem connection
- PVC-U pipe in suitable length has to be obtained on site



d-d [mm]	DN-DN [mm]	Code	kg	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]
16 - 20	10 - 15	161 486 435	0.032	41	52	29	36	26
25 - 32	20 - 25	161 486 436	0.037	50	62	32	39	36
40 - 50	32 - 40	161 486 437	0.047	65	76	34	44	40
- 63	- 50	161 486 438	0.058	84	87	37	48	44

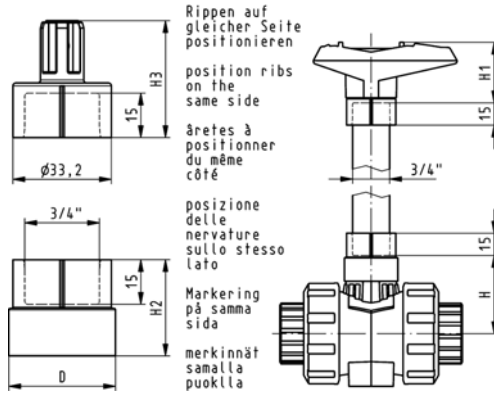
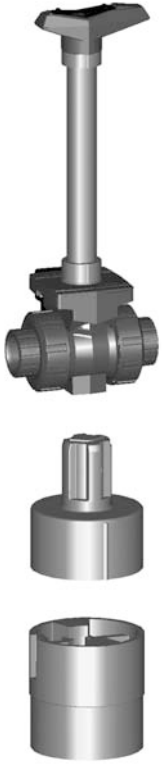


Handle extension 546 PVC-U inch BS/ASTM

Model:

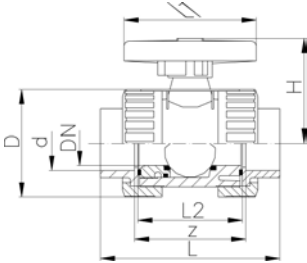
- For Ball Valve Type 546

DN-DN [mm]	Inch	Code	kg	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	D [mm]
10 - 15	3/8-1/2	161 486 443	0.032	41	52	29	36	26
20 - 25	3/4-1	161 486 444	0.037	50	62	32	39	36
32 - 40	1 1/4-1 1/2	161 486 445	0.047	65	76	34	44	40
50 -	2	161 486 446	0.058	84	87	37	48	44



Ball Valves 323

PROGEF Standard Metering ball valve type 323 With fusion sockets metric



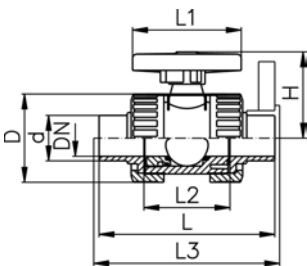
Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	11	167 323 401	167 323 411	0.103
20	15	10	20	167 323 402	167 323 412	0.104

d [mm]	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
16	46	50	98	78	62	72
20	46	50	101	78	62	73

PROGEF Standard Metering ball valve type 323 With socket fusion spigots

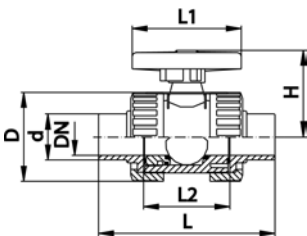


Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]
16	10	10	11	167 323 441	167 323 451	0.100	46	50	109	78	62
20	15	10	20	167 323 442	167 323 452	0.100	46	50	124	78	62

PROGEF Standard Metering ball valve type 323 With butt fusion spigots SDR11



Model:

- Material: PP-H
- For easy installation and removal
- Ball seals PTFE
- Angle of operation 180° with scale

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	H [mm]	L [mm]	L1 [mm]	L2 [mm]
20	15	10	20	167 323 482	167 323 492	0.106	46	50	130	78	62

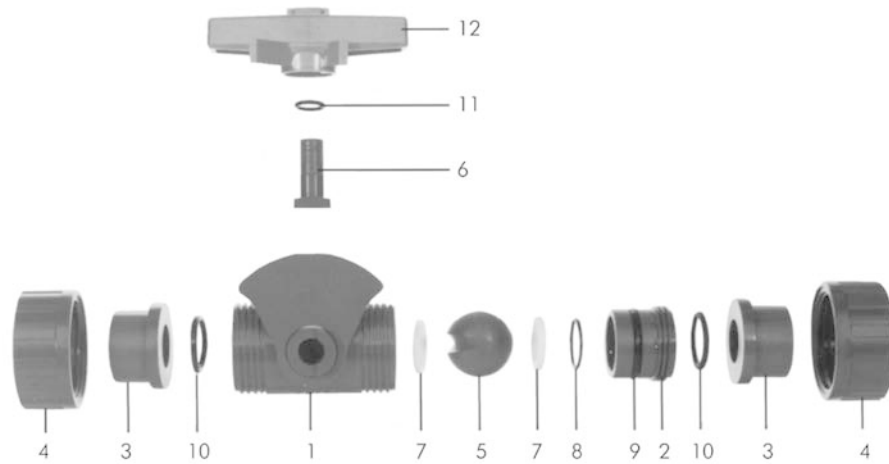
Key PBTP black



- For assembly and disassembly of the union bush of ball valves type 323, 343, 346 and ball check valves 360

d-d [mm]	DN-DN [mm]	Inch	Code	kg
16 - 63	10 - 50	3/8-2	160 480 106	0.038

Spare parts metering ball valve type 323

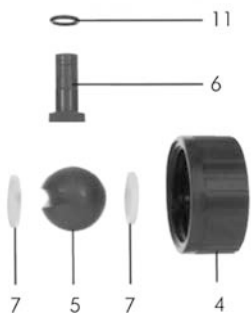


Ball set

Model:

- Ball seals standard in PTFE
- Ball set consisting of: union nut (4), ball (5), stem (6), ball- and stem seal (7,11)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PP-H EPDM Code	PP-H FPM Code	kg
16	3/8	10	161 482 986	161 482 989	167 480 901	167 480 904	0.030
20	1/2	15	161 482 987	161 482 990	167 480 902	167 480 905	0.030



Lever

d [mm]	Inch	DN [mm]	PVC-U orange Code	ASA black Code	kg
16	3/8	10	161 480 724	160 480 130	0.020
20	1/2	15	161 480 724	160 480 130	0.020



Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 042	749 410 042	0.002
20	1/2	15	748 410 042	749 410 042	0.002



Seal set

Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 482 883	161 482 892	0.007
20	1/2	15	161 482 883	161 482 892	0.007



Union bush

d [mm]	Inch	DN [mm]	PVC-U Code	PP-H Code	kg
16	3/8	10	161 482 339	167 480 519	0.008
20	1/2	15	161 482 339	167 480 519	0.008





Union nut

d [mm]	Inch	DN [mm]	PVC-U Code	PP-H Code	kg	
16	3/8	10	161 340 617	167 480 786	0.013	
20	1/2	15	161 340 617	167 480 786	0.013	



Valve end with socket metric

d [mm]	Inch	DN [mm]	PVC-U Code	PE80 Code	PP-H Code	kg	
16	3/8	10	161 480 536	173 480 000	167 480 159	0.006	
20	1/2	15	161 480 537	173 480 001	167 480 160	0.006	



Valve end with socket ANSI/JIS/BS

Inch	DN [mm]	PVC-U ANSI Code	PVC-U JIS Code	PVC-U BS Code	kg	
3/8	10	161 482 377		161 480 543	0.009	
1/2	15	161 482 378	161 484 601	161 480 544	0.008	



Valve end with spigot metric

d [mm]	Inch	DN [mm]	PVC-U Code	PP-H Code	kg	
16	3/8	10	161 482 345	167 480 527	0.006	
20	1/2	15	161 482 346	167 480 528	0.010	



Butt fusion spigot

d [mm]	Inch	DN [mm]	PE100 SDR11 long Code	PE100 SDR11 Code	PP-H SDR11 long Code	
20	1/2	15	193 480 127	193 480 027	167 482 546	
20	1/2	15		167 480 546		



d [mm]	Inch	DN [mm]	PP-H SDR11 IR Code	kg	
20	1/2	15	167 480 546	0.010	
20	1/2	15		0.010	



Threaded bush Rp

Rp [inch]	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	kg	
3/8	10	161 480 550	163 480 832	169 480 120	167 480 166	0.006	
1/2	15	161 480 551	163 480 833	169 480 121	167 480 167	0.006	

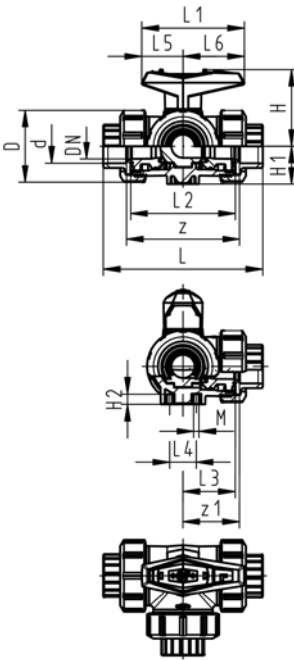
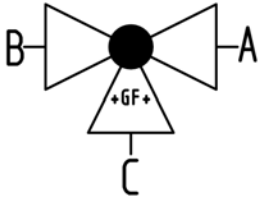


Threaded bush Rc/NPT

Inch	DN [mm]	PVC-U Rc Code	PVC-U NPT Code	PVDF NPT Code	kg	
3/8	10		161 482 389	175 480 727	0.017	
1/2	15	161 484 610	161 482 390	175 480 728	0.014	

Ball Valves 543

PROGEF Standard 3-Way ball valve type 543 Horizontal/L-port With fusion sockets metric

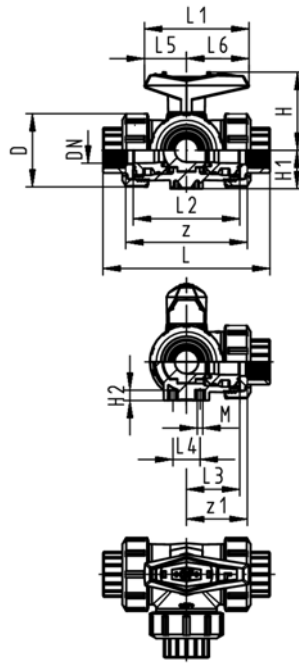
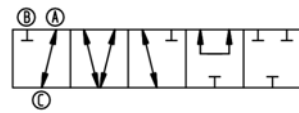
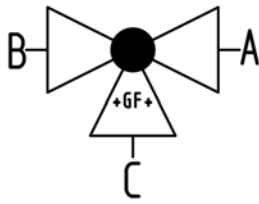


Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	167 543 001	167 543 011	0.161
20	15	10	75	167 543 002	167 543 012	0.165
25	20	10	150	167 543 003	167 543 013	0.237
32	25	10	280	167 543 004	167 543 014	0.361
40	32	10	480	167 543 005	167 543 015	0.616
50	40	10	620	167 543 006	167 543 016	0.912
63	50	10	1230	167 543 007	167 543 017	1.773

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94



PROGEF Standard 3-Way ball valve type 543 Horizontal/L-port With threaded sockets Rp reinforced



Model:

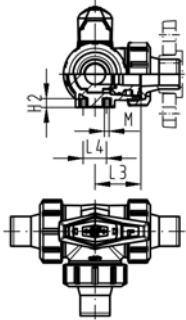
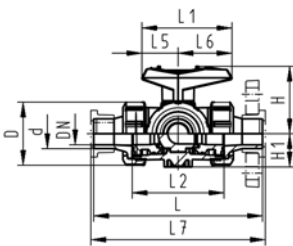
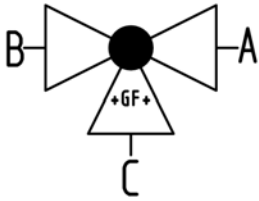
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	167 543 081	167 543 091	0.161
1/2	15	10	75	167 543 082	167 543 092	0.165
3/4	20	10	150	167 543 083	167 543 093	0.237
1	25	10	280	167 543 084	167 543 094	0.361
1 1/4	32	10	480	167 543 085	167 543 095	0.616
1 1/2	40	10	620	167 543 086	167 543 096	0.912
2	50	10	1230	167 543 087	167 543 097	1.773

Rp [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	112	77	72	36	25	32	45	57	28	8	6	86	43
1/2	50	114	77	72	36	25	32	45	57	28	8	6	84	42
3/4	58	131	97	85	43	25	39	58	67	32	8	6	99	50
1	68	154	97	98	49	25	39	58	73	36	8	6	112	56
1 1/4	84	180	128	118	59	45	54	74	90	45	9	8	132	66
1 1/2	97	203	128	135	68	45	54	74	97	51	9	8	153	77
2	124	258	152	176	88	45	66	87	116	65	9	8	196	98



PROGEF Standard 3-Way ball valve type 543 Horizontal/L-port With socket fusion spigots metric



Model:

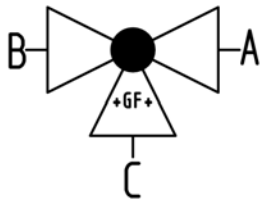
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	167 543 021	167 543 031	0.165
20	15	10	75	167 543 022	167 543 032	0.171
25	20	10	150	167 543 023	167 543 033	0.247
32	25	10	280	167 543 024	167 543 034	0.377
40	32	10	480	167 543 025	167 543 035	0.629
50	40	10	620	167 543 026	167 543 036	0.953
63	50	10	1230	167 543 027	167 543 037	1.855

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
16	50	126	77	72	36	25	32	45	133	57	28	8	6
20	50	136	77	72	36	25	32	45	144	57	28	8	6
25	58	159	97	85	43	25	39	58	170	67	32	8	6
32	68	178	97	98	49	25	39	58	191	73	36	8	6
40	84	204	128	118	59	45	54	74	223	90	45	9	8
50	97	237	128	135	68	45	54	74	256	97	51	9	8
63	124	296	152	176	88	45	66	87	319	116	65	9	8

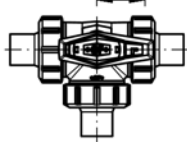
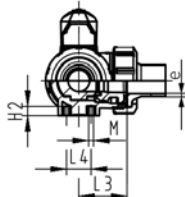
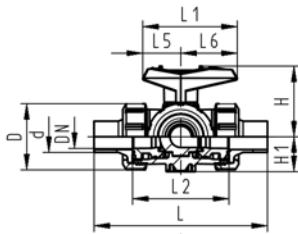


PROGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With butt fusion spigots IR-Plus
SDR11 metric



Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

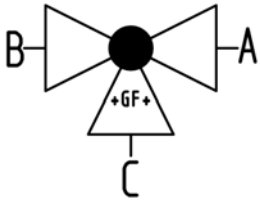


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	167 543 062	167 543 072	0.171
25	20	10	150	167 543 063	167 543 073	0.247
32	25	10	280	167 543 064	167 543 074	0.377
40	32	10	480	167 543 065	167 543 075	0.629
50	40	10	620	167 543 066	167 543 076	0.953
63	50	10	1230	167 543 067	167 543 077	1.855

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9
25	58	163	97	85	43	25	39	58	67	32	8	6	2.3
32	68	178	97	98	49	25	39	58	73	36	8	6	2.9
40	84	204	128	118	59	45	54	74	90	45	9	8	3.7
50	97	237	128	135	68	45	54	74	97	51	9	8	4.6
63	124	296	152	176	88	45	66	87	116	65	9	8	5.8

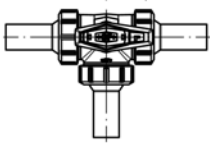
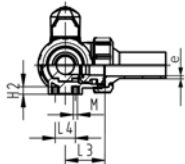
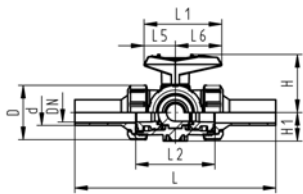


PROGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With butt fusion spigots long
SDR11 metric



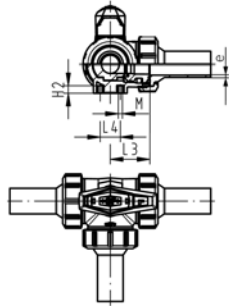
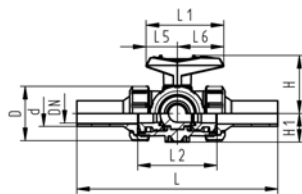
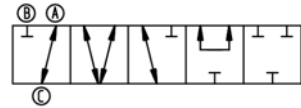
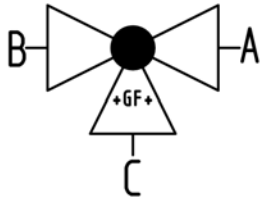
Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	167 543 102	167 543 112	0.179
25	20	10	150	167 543 103	167 543 113	0.262
32	25	10	280	167 543 104	167 543 114	0.399
40	32	10	480	167 543 105	167 543 115	0.675
50	40	10	620	167 543 106	167 543 116	1.032
63	50	10	1230	167 543 107	167 543 117	2.221

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	e [mm]
20	50	210	77	72	36	25	32	45	57	28	8	6	2.3
25	58	237	97	85	43	25	39	58	67	32	8	6	2.3
32	68	250	97	98	49	25	39	58	73	36	8	6	2.9
40	84	282	128	118	59	45	54	74	90	45	9	8	3.7
50	97	317	128	135	68	45	54	74	97	51	9	8	4.6
63	124	396	152	176	88	45	66	87	116	65	9	8	5.8



PROGEF Standard 3-Way ball valve type 543 Horizontal/L-port With butt fusion spigots long PE100 SDR11 metric



Model:

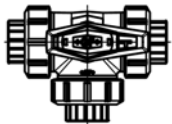
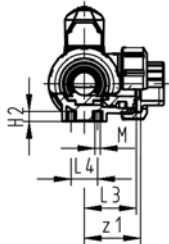
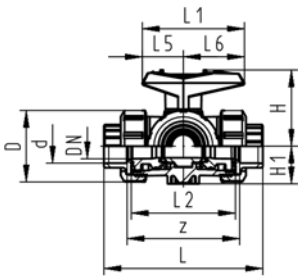
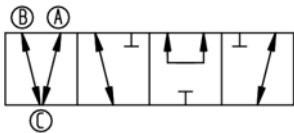
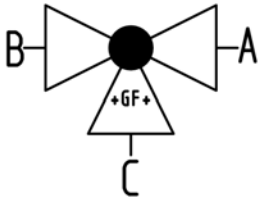
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	167 543 122	167 543 132	0.179
25	20	10	150	167 543 123	167 543 133	0.262
32	25	10	280	167 543 124	167 543 134	0.399
40	32	10	480	167 543 125	167 543 135	0.675
50	40	10	620	167 543 126	167 543 136	1.032
63	50	10	1230	167 543 127	167 543 137	2.221

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]
20	50	210	77	72	36	25	32	45	57	28	8	6	2.3
25	58	237	97	85	43	25	39	58	67	32	8	6	2.3
32	68	250	97	98	49	25	39	58	73	36	8	6	2.9
40	84	282	128	118	59	45	54	74	90	45	9	8	3.7
50	97	317	128	135	68	45	54	74	97	51	9	8	4.6
63	124	396	152	176	88	45	66	87	116	65	9	8	5.8



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With fusion sockets metric



Model:

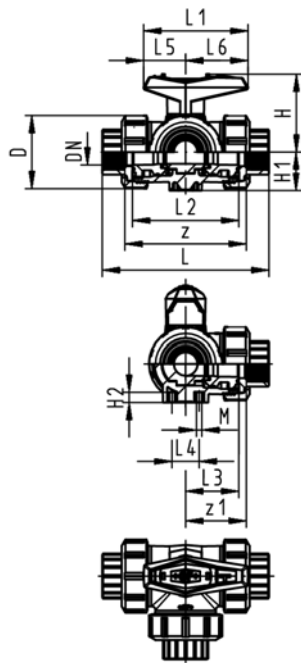
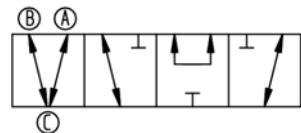
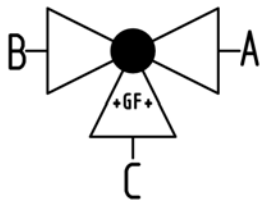
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	167 543 201	167 543 211	0.160
20	15	10	200	167 543 202	167 543 212	0.164
25	20	10	470	167 543 203	167 543 213	0.236
32	25	10	793	167 543 204	167 543 214	0.357
40	32	10	1290	167 543 205	167 543 215	0.609
50	40	10	1910	167 543 206	167 543 216	0.898
63	50	10	3100	167 543 207	167 543 217	1.744

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
16	50	110	77	72	36	25	32	45	57	28	8	6	82	41
20	50	112	77	72	36	25	32	45	57	28	8	6	82	41
25	58	129	97	85	43	25	39	58	67	32	8	6	97	49
32	68	146	97	98	49	25	39	58	73	36	8	6	110	55
40	84	170	128	118	59	45	54	74	90	45	9	8	132	66
50	97	193	128	135	68	45	54	74	97	51	9	8	151	76
63	124	244	152	176	88	45	66	87	116	65	9	8	188	94



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With threaded sockets Rp reinforced



Model:

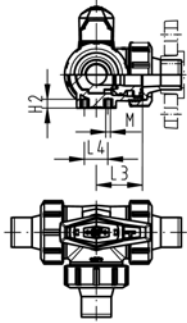
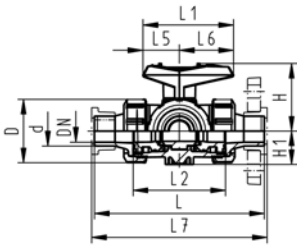
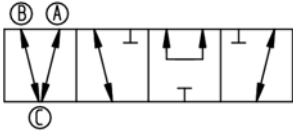
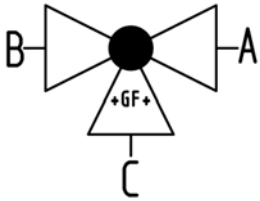
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	167 543 281	167 543 291	0.160
1/2	15	10	200	167 543 282	167 543 292	0.164
3/4	20	10	470	167 543 283	167 543 293	0.236
1	25	10	793	167 543 284	167 543 294	0.357
1 1/4	32	10	1290	167 543 285	167 543 295	0.609
1 1/2	40	10	1910	167 543 286	167 543 296	0.898
2	50	10	3100	167 543 287	167 543 297	1.744

Rp [inch]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
3/8	50	112	77	72	36	25	32	45	57	28	8	6	86	43
1/2	50	114	77	72	36	25	32	45	57	28	8	6	84	42
3/4	58	131	97	85	43	25	39	58	67	32	8	6	99	50
1	68	154	97	98	49	25	39	58	73	36	8	6	112	56
1 1/4	84	180	128	118	59	45	54	74	90	45	9	8	132	66
1 1/2	97	203	128	135	68	45	54	74	97	51	9	8	153	77
2	124	258	152	176	88	45	66	87	116	65	9	8	196	98



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With socket fusion spigots metric

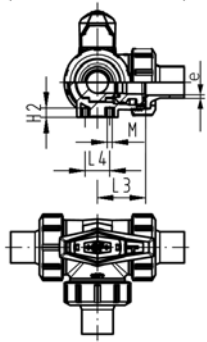
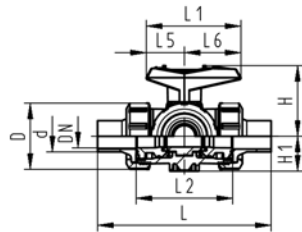
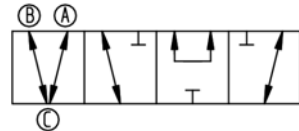
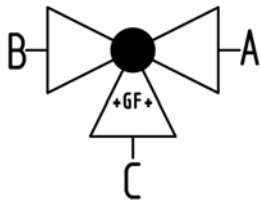


Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	167 543 221	167 543 231	0.164
20	15	10	200	167 543 222	167 543 232	0.170
25	20	10	470	167 543 223	167 543 233	0.245
32	25	10	793	167 543 224	167 543 234	0.372
40	32	10	1290	167 543 225	167 543 235	0.622
50	40	10	1910	167 543 226	167 543 236	0.939
63	50	10	3100	167 543 227	167 543 237	1.826

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	H [mm]	H1 [mm]	H2 [mm]	M
16	50	126	77	72	36	25	32	45	133	57	28	8	6
20	50	136	77	72	36	25	32	45	144	57	28	8	6
25	58	159	97	85	43	25	39	58	170	67	32	8	6
32	68	178	97	98	49	25	39	58	191	73	36	8	6
40	84	204	128	118	59	45	54	74	223	90	45	9	8
50	97	237	128	135	68	45	54	74	256	97	51	9	8
63	124	296	152	176	88	45	66	87	319	116	65	9	8



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With butt fusion spigots IR-Plus SDR11 metric



Model:

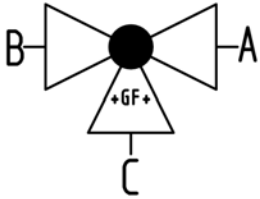
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	167 543 262	167 543 272	0.170
25	20	10	470	167 543 263	167 543 273	0.245
32	25	10	793	167 543 264	167 543 274	0.372
40	32	10	1290	167 543 265	167 543 275	0.622
50	40	10	1910	167 543 266	167 543 276	0.939
63	50	10	3100	167 543 267	167 543 277	1.826

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]
20	50	146	77	72	36	25	32	45	57	28	8	6	1.9
25	58	163	97	85	43	25	39	58	67	32	8	6	2.3
32	68	178	97	98	49	25	39	58	73	36	8	6	2.9
40	84	204	128	118	59	45	54	74	90	45	9	8	3.7
50	97	237	128	135	68	45	54	74	97	51	9	8	4.6
63	124	296	152	176	88	45	66	87	116	65	9	8	5.8

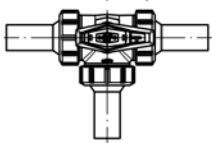
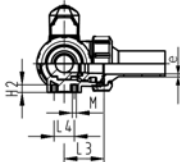
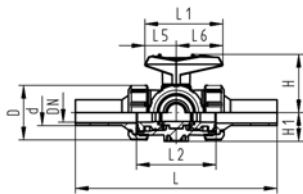
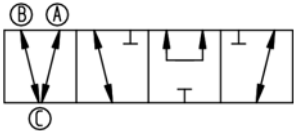


PROGEF Standard
3-Way ball valve type 543
Horizontal/T-port
With butt fusion spigots long
SDR11 metric



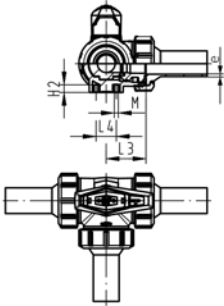
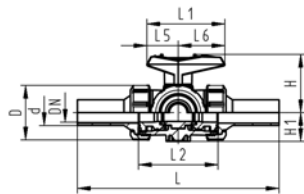
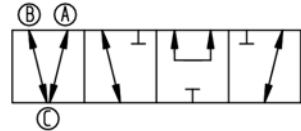
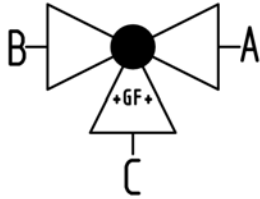
Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	167 543 302	167 543 312	1.744
25	20	10	470	167 543 303	167 543 313	0.160
32	25	10	793	167 543 304	167 543 314	0.164
40	32	10	1290	167 543 305	167 543 315	0.236
50	40	10	1910	167 543 306	167 543 316	0.357
63	50	10	3100	167 543 307	167 543 317	0.609

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	e [mm]
20	50	210	77	72	36	25	32	45	57	28	8	6	2.3
25	58	237	97	85	43	25	39	58	67	32	8	6	2.3
32	68	250	97	98	49	25	39	58	73	36	8	6	2.9
40	84	282	128	118	59	45	54	74	90	45	9	8	3.7
50	97	317	128	135	68	45	54	74	97	51	9	8	4.6
63	124	396	152	176	88	45	66	87	116	65	9	8	5.8



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With butt fusion spigots long PE100 SDR11 metric



Model:

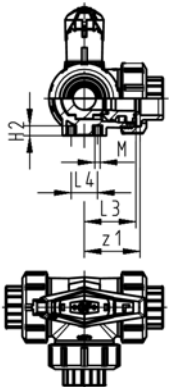
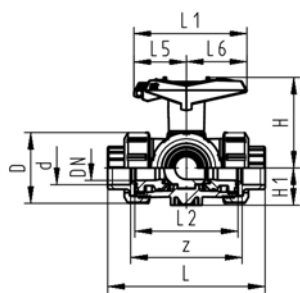
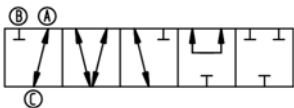
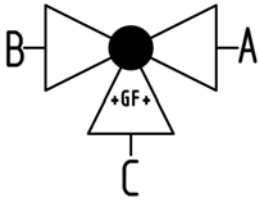
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	167 543 322	167 543 332	0.179
25	20	10	470	167 543 323	167 543 333	0.261
32	25	10	793	167 543 324	167 543 334	0.395
40	32	10	1290	167 543 325	167 543 335	0.668
50	40	10	1910	167 543 326	167 543 336	1.019
63	50	10	3100	167 543 327	167 543 337	2.192

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]
20	50	210	77	72	36	25	32	45	57	28	8	6	2.3
25	58	237	97	85	43	25	39	58	67	32	8	6	2.3
32	68	250	97	98	49	25	39	58	73	36	8	6	2.9
40	84	282	128	118	59	45	54	74	90	45	9	8	3.7
50	97	317	128	135	68	45	54	74	97	51	9	8	4.6
63	124	396	152	176	88	45	66	87	116	65	9	8	5.8



PROGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With lockable handle
With fusion sockets metric

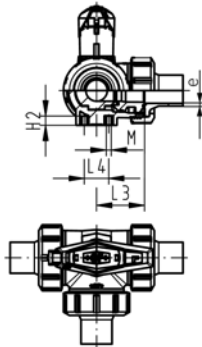
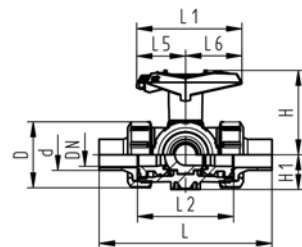
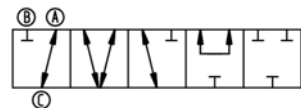
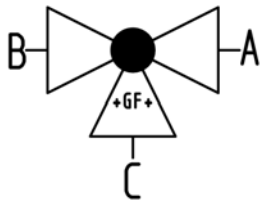


Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	167 543 561	167 543 571	0.170
20	15	10	75	167 543 562	167 543 572	0.174
25	20	10	150	167 543 563	167 543 573	0.248
32	25	10	280	167 543 564	167 543 574	0.372
40	32	10	480	167 543 565	167 543 575	0.631
50	40	10	620	167 543 566	167 543 576	0.927
63	50	10	1230	167 543 567	167 543 577	1.793

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
16	50	110	87	72	36	25	42	45	79	28	8	6	82	41
20	50	112	87	72	36	25	42	45	79	28	8	6	82	41
25	58	129	108	85	43	25	50	58	88	32	8	6	97	49
32	68	146	108	98	49	25	50	58	94	36	8	6	110	55
40	84	170	141	118	59	45	66	75	113	45	9	8	132	66
50	97	193	141	135	68	45	66	75	119	51	9	8	151	76
63	124	244	165	176	88	45	78	87	141	65	9	8	188	94



PROGEF Standard
3-Way ball valve type 543
Horizontal/L-port
With lockable handle
With butt fusion spigots IR-Plus
SDR11 metric



Model:

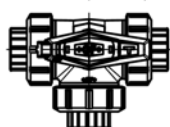
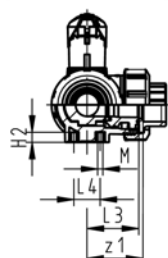
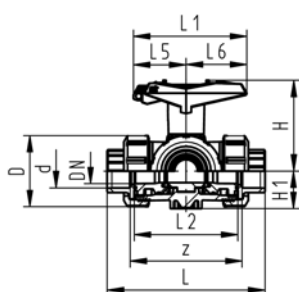
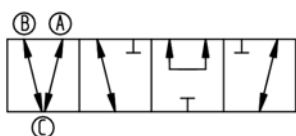
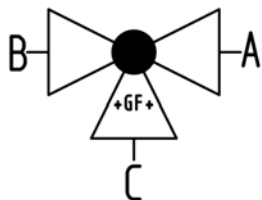
- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	167 543 602	167 543 612	0.180
25	20	10	150	167 543 603	167 543 613	0.258
32	25	10	280	167 543 604	167 543 614	0.388
40	32	10	480	167 543 605	167 543 615	0.645
50	40	10	620	167 543 606	167 543 616	0.968
63	50	10	1230	167 543 607	167 543 617	1.876

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]
20	50	146	87	72	36	25	42	45	79	28	8	6	1.9
25	58	163	108	85	43	25	50	58	88	32	8	6	2.3
32	68	178	108	98	49	25	50	58	94	36	8	6	2.9
40	84	204	141	118	59	45	66	75	113	45	9	8	3.7
50	97	237	141	135	68	45	66	75	119	51	9	8	4.6
63	124	296	165	176	88	45	78	87	141	65	9	8	5.8



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With lockable handle With fusion sockets metric

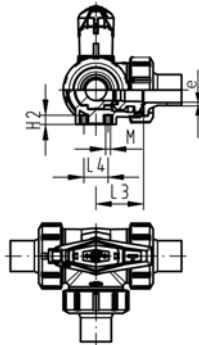
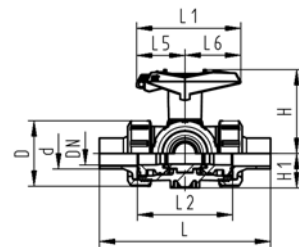
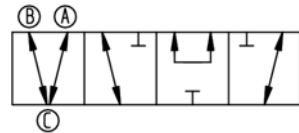
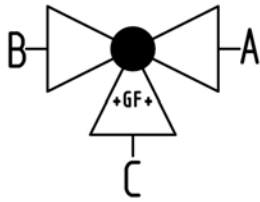


Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	167 543 581	167 543 591	0.169
20	15	10	200	167 543 582	167 543 592	0.173
25	20	10	470	167 543 583	167 543 593	0.247
32	25	10	793	167 543 584	167 543 594	0.368
40	32	10	1290	167 543 585	167 543 595	0.624
50	40	10	1910	167 543 586	167 543 596	0.913
63	50	10	3100	167 543 587	167 543 597	1.764

d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	z1 [mm]
16	50	110	87	72	36	25	42	45	79	28	8	6	82	41
20	50	112	87	72	36	25	42	45	79	28	8	6	82	41
25	58	129	108	85	43	25	50	58	88	32	8	6	97	49
32	68	146	108	98	49	25	50	58	94	36	8	6	110	55
40	84	170	141	118	59	45	66	75	113	45	9	8	132	66
50	97	193	141	135	68	45	66	75	119	51	9	8	151	76
63	124	244	165	176	88	45	78	87	141	65	9	8	188	94



PROGEF Standard 3-Way ball valve type 543 Horizontal/T-port With lockable handle With butt fusion spigots IR-Plus SDR11 metric



Model:

- Material: PP-H
- For easy installation and removal (valve end and union nut are compatible with type 546)
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- Angle of operation 360° without turn limiter
- Turn limiter 90° enclosed, in different positions usable as a clip-on ring
- Integrated stainless steel mounting inserts
- Multifunctional lever red with ratched setting 45°, lockable
- Delivery status A-B-C opened, see flow scheme

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	167 543 622	167 543 632	0.179
25	20	10	470	167 543 623	167 543 633	0.257
32	25	10	793	167 543 624	167 543 634	0.384
40	32	10	1290	167 543 625	167 543 635	0.637
50	40	10	1910	167 543 626	167 543 636	0.954
63	50	10	3100	167 543 627	167 543 637	1.846

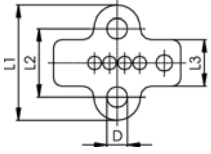
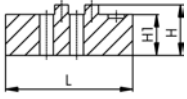
d [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	H2 [mm]	M [mm]	e [mm]
20	50	146	87	72	36	25	42	45	79	28	8	6	1.9
25	58	163	108	85	43	25	50	58	88	32	8	6	2.3
32	68	178	108	98	49	25	50	58	94	36	8	6	2.9
40	84	204	141	118	59	45	66	75	113	45	9	8	3.7
50	97	237	141	135	68	45	66	75	119	51	9	8	4.6
63	124	296	165	176	88	45	78	87	141	65	9	8	5.8

Key PBTP black



- For assembly and disassembly of the union bush of ball valves type 323, 343, 346 and ball check valves 360

d-d [mm]	DN-DN [mm]	Inch	Code	kg
16 - 63	10 - 50	3/8-2	160 480 106	0.038



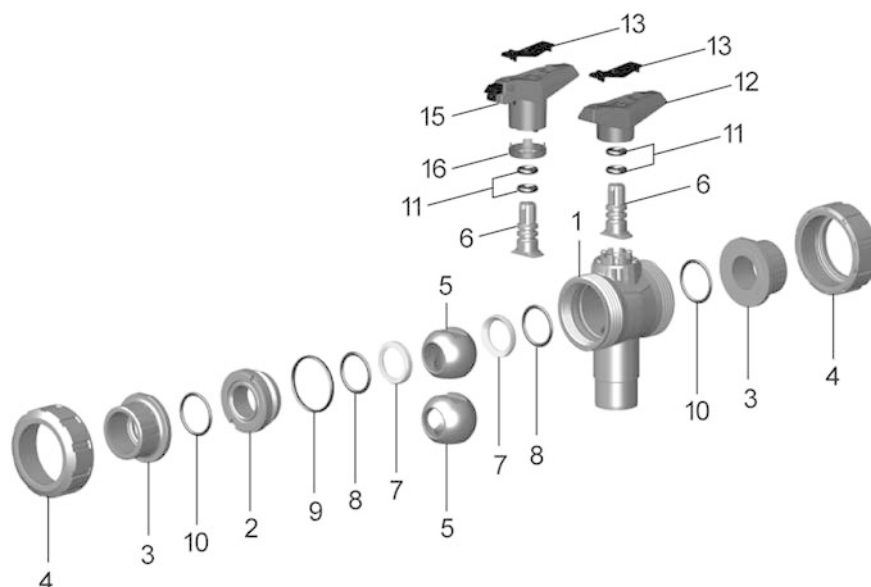
Mounting block PP

- For diaphragm valve to be compatible with pipe clips type 061 and one spacer type 061
- For 3-way ball valve type 343 to be compatible with pipe clips type 061 and one spacer type 061
- **For dimensions DN 10-15, the two mounting blocks (No 2+6) have to be ordered separately. They are to be assembled together.**

d-d [mm]	DN-DN [mm]	Inch	Block no.	Code	kg
20 - 32	15 - 25	1/2 -1	2	167 480 423	0.003
25 - 32	20 - 25	3/4-1	6	167 482 238	0.017
40 - 63	32 - 50	1 1/4-2	7	167 482 239	0.030

d-d [mm]	D [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
20 - 32	8	7	4	47	42	25	17
25 - 32	8	15	15	47	42	25	17
40 - 63	10	11	11	80	67	45	22

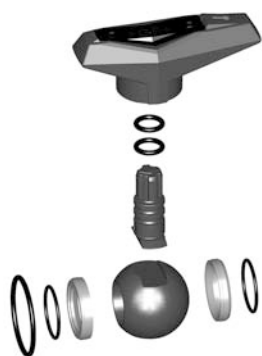
Spare parts ball valve type 543 vertical



Ball set L-port

Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)

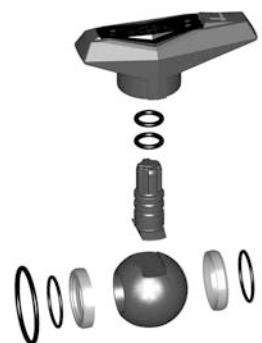


d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	ABS EPDM Code	kg
16	3/8	10	161 488 202	161 488 212	169 481 302	0.026
20	1/2	15	161 488 202	161 488 212	169 481 302	0.026
25	3/4	20	161 488 203	161 488 213	169 481 303	0.049
32	1	25	161 488 204	161 488 214	169 481 304	0.063
40	1 1/4	32	161 488 205	161 488 215	169 481 305	0.111
50	1 1/2	40	161 488 206	161 488 216	169 481 306	0.155
63	2	50	161 488 207	161 488 217	169 481 307	0.298

Ball set diverter ball

Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	ABS EPDM Code	kg
16	3/8	10	161 488 222	161 488 232	169 481 312	0.020
20	1/2	15	161 488 222	161 488 232	169 481 312	0.020
25	3/4	20	161 488 223	161 488 233	169 481 313	0.037
32	1	25	161 488 224	161 488 234	169 481 314	0.041
40	1 1/4	32	161 488 225	161 488 235	169 481 315	0.070
50	1 1/2	40	161 488 226	161 488 236	169 481 316	0.083
63	2	50	161 488 227	161 488 237	169 481 317	0.122



Lever

d [mm]	Inch	DN [mm]	Standard lever L- port red Code	Standard lever di- verter ball red Code	Multifunctional- lever L-port red Code	
16	3/8	10	167 484 688	167 484 788	167 484 642	
20	1/2	15	167 484 688	167 484 788	167 484 642	
25	3/4	20	167 484 689	167 484 789	167 484 643	
32	1	25	167 484 690	167 484 790	167 484 644	
40	1 1/4	32	167 484 691	167 484 791	167 484 645	
50	1 1/2	40	167 484 692	167 484 792	167 484 646	
63	2	50	167 484 693	167 484 793	167 484 647	

d [mm]	Inch	DN [mm]	Multifunctional- lever diverter ball red Code	kg	
16	3/8	10	167 484 742	0.026	
20	1/2	15	167 484 742	0.026	
25	3/4	20	167 484 743	0.045	
32	1	25	167 484 744	0.045	
40	1 1/4	32	167 484 745	0.082	
50	1 1/2	40	167 484 746	0.082	
63	2	50	167 484 747	0.104	



Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg	
16	3/8	10	748 410 059	749 410 059	0.002	
20	1/2	15	748 410 059	749 410 059	0.002	
25	3/4	20	748 410 106	749 410 106	0.002	
32	1	25	748 410 151	749 410 151	0.002	
40	1 1/4	32	748 410 062	749 410 062	0.005	
50	1 1/2	40	748 410 003	749 410 003	0.007	
63	2	50	748 410 231	749 410 231	0.002	

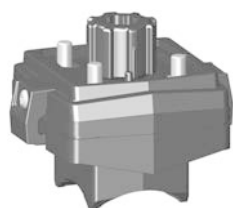


Seal set

Model:

- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg	
16	3/8	10	161 486 400	161 486 410	0.003	
20	1/2	15	161 486 400	161 486 410	0.003	
25	3/4	20	161 486 401	161 486 411	0.005	
32	1	25	161 486 402	161 486 412	0.006	
40	1 1/4	32	161 486 403	161 486 413	0.010	
50	1 1/2	40	161 486 404	161 486 414	0.023	
63	2	50	161 486 405	161 486 415	0.031	



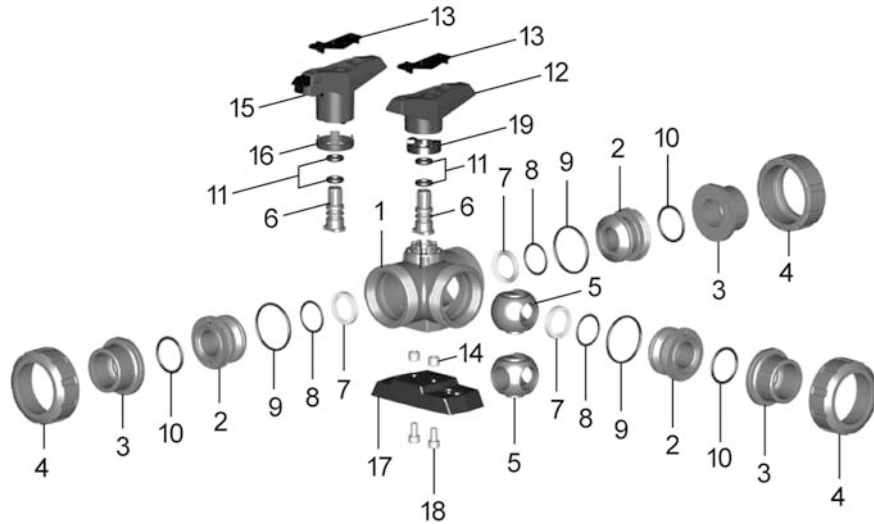
Assembly kit

Model:

- Intermediate element for ball valve type 543 vertical and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

d [mm]	Inch [inch]	DN [mm]	Code	kg	
16 - 20	3/8 - 1/2	10 - 15	167 484 945	0.156	
25 - 32	3/4 - 1	20 - 25	167 484 946	0.181	
40 - 50	1 1/4 - 1 1/2	32 - 40	167 484 947	0.197	
63	2	50	167 484 948	0.236	

Spare parts ball valve type 543 horizontal



Central part L-port

Model:

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 488 002	161 488 012	163 481 902	163 481 912	169 481 202
20	1/2	15	161 488 002	161 488 012	163 481 902	163 481 912	169 481 202
25	3/4	20	161 488 003	161 488 013	163 481 903	163 481 913	169 481 203
32	1	25	161 488 004	161 488 014	163 481 904	163 481 914	169 481 204
40	1 1/4	32	161 488 005	161 488 015	163 481 905	163 481 915	169 481 205
50	1 1/2	40	161 488 006	161 488 016	163 481 906	163 481 916	169 481 206
63	2	50	161 488 007	161 488 017	163 481 907	163 481 917	169 481 207

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
16	3/8	10	167 484 802	167 484 812	175 483 602	0.000
20	1/2	15	167 484 802	167 484 812	175 483 602	0.000
25	3/4	20	167 484 803	167 484 813	175 483 603	0.000
32	1	25	167 484 804	167 484 814	175 483 604	0.000
40	1 1/4	32	167 484 805	167 484 815	175 483 605	0.000
50	1 1/2	40	167 484 806	167 484 816	175 483 606	0.000
63	2	50	167 484 807	167 484 817	175 483 607	0.000



Central part T-port

Model:

- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, face- and stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 488 022	161 488 032	163 481 922	163 481 932	169 481 212
20	1/2	15	161 488 022	161 488 032	163 481 922	163 481 932	169 481 212
25	3/4	20	161 488 023	161 488 033	163 481 923	163 481 933	169 481 213
32	1	25	161 488 024	161 488 034	163 481 924	163 481 934	169 481 214
40	1 1/4	32	161 488 025	161 488 035	163 481 925	163 481 935	169 481 215
50	1 1/2	40	161 488 026	161 488 036	163 481 926	163 481 936	169 481 216
63	2	50	161 488 027	161 488 037	163 481 927	163 481 937	169 481 217

table continued next page

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg	
16	3/8	10	167 484 822	167 484 832	175 483 612	0.000	
20	1/2	15	167 484 822	167 484 832	175 483 612	0.000	
25	3/4	20	167 484 823	167 484 833	175 483 613	0.295	
32	1	25	167 484 824	167 484 834	175 483 614	0.000	
40	1 1/4	32	167 484 825	167 484 835	175 483 615	0.000	
50	1 1/2	40	167 484 826	167 484 836	175 483 616	0.000	
63	2	50	167 484 827	167 484 837	175 483 617	0.000	

Ball set L-port

Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 488 162	161 488 172	163 481 982	163 481 992	169 481 282
20	1/2	15	161 488 162	161 488 172	163 481 982	163 481 992	169 481 282
25	3/4	20	161 488 163	161 488 173	163 481 983	163 481 993	169 481 283
32	1	25	161 488 164	161 488 174	163 481 984	163 481 994	169 481 284
40	1 1/4	32	161 488 165	161 488 175	163 481 985	163 481 995	169 481 285
50	1 1/2	40	161 488 166	161 488 176	163 481 986	163 481 996	169 481 286
63	2	50	161 488 167	161 488 177	163 481 987	163 481 997	169 481 287

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg	
16	3/8	10	167 484 882	167 484 892	175 483 642	0.032	
20	1/2	15	167 484 882	167 484 892	175 483 642	0.032	
25	3/4	20	167 484 883	167 484 893	175 483 643	0.061	
32	1	25	167 484 884	167 484 894	175 483 644	0.088	
40	1 1/4	32	167 484 885	167 484 895	175 483 645	0.152	
50	1 1/2	40	167 484 886	167 484 896	175 483 646	0.237	
63	2	50	167 484 887	167 484 897	175 483 647	0.403	

Ball set T-port

Model:

- Ball seals standard in PTFE
- Ball set consisting of: lever (12), ball (5), stem (6), ball-, backing-, body- and stem seal (7-9,11)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 488 182	161 488 192	163 482 002	163 482 012	169 481 292
20	1/2	15	161 488 182	161 488 192	163 482 002	163 482 012	169 481 292
25	3/4	20	161 488 183	161 488 193	163 482 003	163 482 013	169 481 293
32	1	25	161 488 184	161 488 194	163 482 004	163 482 014	169 481 294
40	1 1/4	32	161 488 185	161 488 195	163 482 005	163 482 015	169 481 295
50	1 1/2	40	161 488 186	161 488 196	163 482 006	163 482 016	169 481 296
63	2	50	161 488 187	161 488 197	163 482 007	163 482 017	169 481 297

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg	
16	3/8	10	167 484 902	167 484 912	175 483 652	0.030	
20	1/2	15	167 484 902	167 484 912	175 483 652	0.030	
25	3/4	20	167 484 903	167 484 913	175 483 653	0.059	
32	1	25	167 484 904	167 484 914	175 483 654	0.079	
40	1 1/4	32	167 484 905	167 484 915	175 483 655	0.138	
50	1 1/2	40	167 484 906	167 484 916	175 483 656	0.210	
63	2	50	167 484 907	167 484 917	175 483 657	0.346	



Lever

d [mm]	Inch	DN [mm]	Standard lever L- port red Code	Standard lever L- port black Code	Standard lever T- port red Code	
16	3/8	10	167 484 488	167 484 376	167 484 588	
20	1/2	15	167 484 488	167 484 376	167 484 588	
25	3/4	20	167 484 489	167 484 377	167 484 589	
32	1	25	167 484 490	167 484 378	167 484 590	
40	1 1/4	32	167 484 491	167 484 379	167 484 591	
50	1 1/2	40	167 484 492	167 484 380	167 484 592	
63	2	50	167 484 493	167 484 381	167 484 593	

d [mm]	Inch	DN [mm]	Standard lever T- port black Code	Multifunctional- lever L-port red Code	Multifunctional- lever T-port red Code	kg
16	3/8	10	167 484 576	167 484 442	167 484 542	0.026
20	1/2	15	167 484 576	167 484 442	167 484 542	0.026
25	3/4	20	167 484 577	167 484 443	167 484 543	0.045
32	1	25	167 484 578	167 484 444	167 484 544	0.045
40	1 1/4	32	167 484 579	167 484 445	167 484 545	0.082
50	1 1/2	40	167 484 580	167 484 446	167 484 546	0.082
63	2	50	167 484 581	167 484 447	167 484 547	0.104



Face seal

Model:

- Face seal no. 10

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 059	749 410 059	0.002
20	1/2	15	748 410 059	749 410 059	0.002
25	3/4	20	748 410 106	749 410 106	0.002
32	1	25	748 410 151	749 410 151	0.002
40	1 1/4	32	748 410 062	749 410 062	0.005
50	1 1/2	40	748 410 003	749 410 003	0.007
63	2	50	748 410 231	749 410 231	0.002

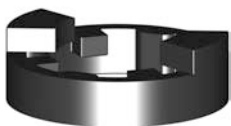


Seal set

Model:

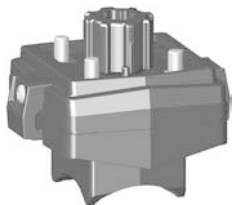
- Seal set consisting of: backing-, body-, face- and stem seal (8-11)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 488 242	161 488 248	0.011
20	1/2	15	161 488 242	161 488 248	0.011
25	3/4	20	161 488 243	161 488 249	0.011
32	1	25	161 488 244	161 488 250	0.014
40	1 1/4	32	161 488 245	161 488 251	0.014
50	1 1/2	40	161 488 246	161 488 252	0.026
63	2	50	161 488 247	161 488 253	0.032



Turn limiter 90°

d [mm]	Inch	DN [mm]	Code	kg
16	3/8	10	167 482 479	0.001
20	1/2	15	167 482 479	0.001
25	3/4	20	167 482 480	0.002
32	1	25	167 482 480	0.002
40	1 1/4	32	167 482 481	0.004
50	1 1/2	40	167 482 481	0.004
63	2	50	167 482 482	0.004



Assembly kit

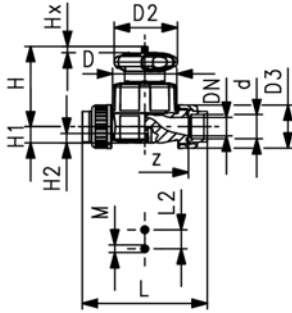
Model:

- Intermediate element for ball valve type 543 horizontal and electric or pneumatic actuators EA21; PA11/21
- Including screws and position indicator for actuators

d [mm]	Inch [inch]	DN [mm]	Code	kg	
16 - 20	$\frac{3}{8}$ - $\frac{1}{2}$	10 - 15	167 484 941	0.156	
25 - 32	$\frac{3}{4}$ - 1	20 - 25	167 484 942	0.181	
40 - 50	1 $\frac{1}{4}$ - 1 $\frac{1}{2}$	32 - 40	167 484 943	0.197	
63	2	50	167 484 944	0.236	

Diaphragm Valves 514

PROGEF Standard Diaphragm valve type 514 With fusion sockets metric



Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

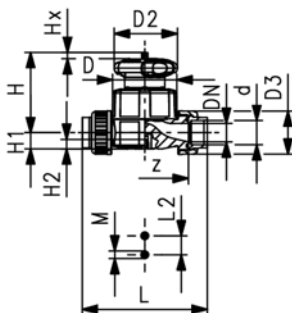
Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	167 514 002	167 514 012	167 514 032	167 514 062	0.361
25	20	10	271	167 514 003	167 514 013	167 514 033	167 514 063	0.488
32	25	10	481	167 514 004	167 514 014	167 514 034	167 514 064	1.081
40	32	10	759	167 514 005	167 514 015	167 514 035	167 514 065	1.277
50	40	10	1263	167 514 006	167 514 016	167 514 036	167 514 066	2.305
63	50	10	1728	167 514 007	167 514 017	167 514 037	167 514 067	3.030

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]
20	65	65	48	128	25	73	14	12	M6	100	7
25	80	65	58	150	25	81	18	12	M6	118	10
32	88	87	65	162	25	107	22	12	M6	126	13
40	101	87	79	184	45	115	26	15	M8	144	15
50	117	135	91	210	45	148	32	15	M8	164	19
63	144	135	111	248	45	166	39	15	M8	194	25

PROGEF Standard Diaphragm valve type 514 With fusion sockets PE80 metric



Model:

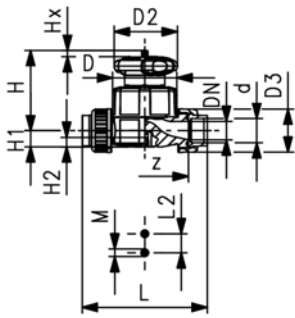
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 514 212	167 514 232	0.371
25	20	10	271	167 514 213	167 514 233	0.501
32	25	10	481	167 514 214	167 514 234	1.103
40	32	10	759	167 514 215	167 514 235	1.299
50	40	10	1263	167 514 216	167 514 236	2.289
63	50	10	1728	167 514 217	167 514 237	2.978

table continued next page



d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]
20	65	65	48	128	25	73	14	12	M6	100	7
25	80	65	58	150	25	81	18	12	M6	118	10
32	88	87	65	162	25	107	22	12	M6	126	13
40	101	87	79	184	45	115	26	15	M8	144	15
50	117	135	91	210	45	148	32	15	M8	164	19
63	144	135	111	248	45	166	39	15	M8	194	25



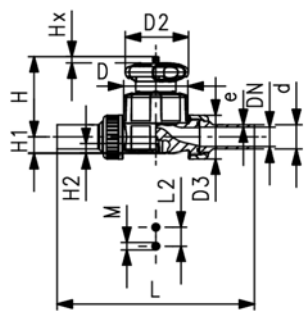
PROGEF Standard Diaphragm valve type 514 With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	167 514 102	167 514 112	167 514 132	167 514 162	0.369
25	20	10	271	167 514 103	167 514 113	167 514 133	167 514 163	0.500
32	25	10	481	167 514 104	167 514 114	167 514 134	167 514 164	1.101
40	32	10	759	167 514 105	167 514 115	167 514 135	167 514 165	1.309
50	40	10	1263	167 514 106	167 514 116	167 514 136	167 514 166	2.313
63	50	10	1728	167 514 107	167 514 117	167 514 137	167 514 167	3.044

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	48	196	25	73	14	12	M6	7	1.9
25	80	65	58	221	25	81	18	12	M6	10	2.3
32	88	87	65	234	25	107	22	12	M6	13	2.9
40	101	87	79	260	45	115	26	15	M8	15	3.7
50	117	135	91	284	45	148	32	15	M8	19	4.6
63	144	135	111	321	45	166	39	15	M8	25	5.8



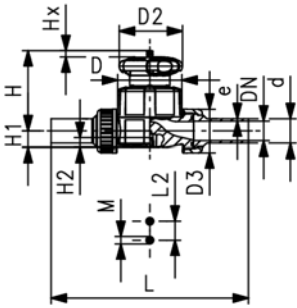
PROGEF Standard Diaphragm valve type 514 With butt and electro fusion ends PE100 SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 514 312	167 514 332	0.381
25	20	10	271	167 514 313	167 514 333	0.513
32	25	10	481	167 514 314	167 514 334	1.127
40	32	10	759	167 514 315	167 514 335	1.337
50	40	10	1263	167 514 316	167 514 336	2.359
63	50	10	1728	167 514 317	167 514 337	3.088

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	48	196	25	73	14	12	M6	7	1,9
25	80	65	58	221	25	81	18	12	M6	10	2,3
32	88	87	65	234	25	107	22	12	M6	13	2,9
40	101	87	79	260	45	115	26	15	M8	15	3,7
50	117	135	91	284	45	148	32	15	M8	19	4,6
63	144	135	111	321	45	166	39	15	M8	25	5,8

Spare parts diaphragm



d [mm]	Inch	DN [mm]	NBR Code	EPDM Code	FPM Code	PTFE/EPDM Code	PTFE/EPDM HP Code
20	½	15	745 500 012	748 500 012	749 500 012	747 502 012	747 502 032
25	¾	20	745 500 013	748 500 013	749 500 013	747 502 013	747 502 033
32	1	25	745 500 014	748 500 014	749 500 014	747 502 014	747 502 034
40	1 ¼	32	745 500 015	748 500 015	749 500 015	747 502 015	747 502 035
50	1 ½	40	745 500 016	748 500 016	749 500 016	747 502 016	747 502 036
63	2	50	745 500 017	748 500 017	749 500 017	747 502 017	747 502 037

d [mm]	Inch	DN [mm]	PTFE/FPM Code	kg
20	½	15	747 503 012	0.000
25	¾	20	747 503 013	0.000
32	1	25	747 503 014	0.000
40	1 ¼	32	747 503 015	0.000
50	1 ½	40	747 503 016	0.000
63	2	50	747 503 017	0.000

Spare parts for valve body type 514

Valve body with true union

Model:

- Without connection parts



d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
20	½	15	161 492 062	163 482 052	169 481 322	167 483 522	175 483 682
25	¾	20	161 492 063	163 482 053	169 481 323	167 483 523	175 483 683
32	1	25	161 492 064	163 482 054	169 481 324	167 483 524	175 483 684
40	1 ¼	32	161 492 065	163 482 055	169 481 325	167 483 525	175 483 685
50	1 ½	40	161 492 066	163 482 056	169 481 326	167 483 526	175 483 686
63	2	50	161 492 067	163 482 057	169 481 327	167 483 527	175 483 687

d [mm]	Inch	DN [mm]	PVDF HP Code	kg
20	½	15	180 001 002	0.145
25	¾	20	180 001 003	0.231
32	1	25	180 001 004	0.310
40	1 ¼	32	180 001 005	0.492
50	1 ½	40	180 001 006	0.737
63	2	50	180 001 007	1.301



Union end

d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U JIS Code	PVC-U BS Code	PVC-U ASTM Code	PP-H metric Code
20	½	15	721 600 106	721 605 106	721 601 106	721 602 006	727 600 106
25	¾	20	721 600 107	721 605 107	721 601 107	721 602 007	727 600 107
32	1	25	721 600 108	721 605 108	721 601 108	721 602 008	727 600 108
40	1 ¼	32	721 600 109	721 605 109	721 601 109	721 602 009	727 600 109
50	1 ½	40	721 600 110	721 605 110	721 601 110	721 602 010	727 600 110
63	2	50	721 600 111	721 605 111	721 601 111	721 602 011	727 600 111

d [mm]	Inch	DN [mm]	PVDF metric Code	kg
20	½	15	735 600 106	0.011
25	¾	20	735 600 107	0.022
32	1	25	735 600 108	0.026
40	1 ¼	32	735 600 109	0.046
50	1 ½	40	735 600 110	0.054
63	2	50	735 600 111	0.079



Union nut

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
20	½	15	721 690 006	723 690 006	729 690 406	727 690 406
25	¾	20	721 690 007	723 690 007	729 690 407	727 690 407
32	1	25	721 690 008	723 690 008	729 690 408	727 690 408
40	1 ¼	32	721 690 009	723 690 009	729 690 409	727 690 409
50	1 ½	40	721 690 010	723 690 010	729 690 410	727 690 410
63	2	50	721 690 011	723 690 011	729 690 411	727 690 411

d [mm]	Inch	DN [mm]	PVDF Code	kg
20	½	15	735 690 406	0.023
25	¾	20	735 690 407	0.047
32	1	25	735 690 408	0.048
40	1 ¼	32	735 690 409	0.097
50	1 ½	40	735 690 410	0.146
63	2	50	735 690 411	0.145



O-ring

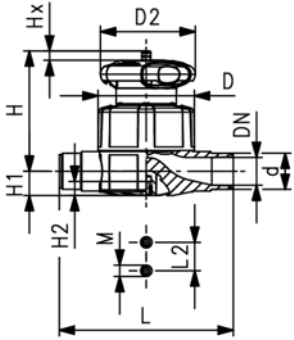
d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg	
20	½	15	748 410 006	749 410 006	0.002	
25	¾	20	748 410 007	749 410 007	0.002	
32	1	25	748 410 008	749 410 008	0.002	
40	1 ¼	32	748 410 009	749 410 009	0.006	
50	1 ½	40	748 410 010	749 410 010	0.007	
63	2	50	748 410 011	749 410 011	0.010	

Diaphragm Valves 515

PROGEF Standard

Diaphragm valve type 515

With socket fusion spigots metric



Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	167 515 002	167 515 012	167 515 032	167 515 062	0.298
25	20	10	271	167 515 003	167 515 013	167 515 033	167 515 063	0.384
32	25	10	481	167 515 004	167 515 014	167 515 034	167 515 064	0.949
40	32	10	759	167 515 005	167 515 015	167 515 035	167 515 065	1.108
50	40	10	1263	167 515 006	167 515 016	167 515 036	167 515 066	2.057
63	50	10	1728	167 515 007	167 515 017	167 515 037	167 515 067	2.604

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	124	25	73	14	12	M6	7	1.9
25	80	65	144	25	81	18	12	M6	10	2.3
32	88	87	154	25	107	22	12	M6	13	2.9
40	101	87	174	45	115	26	15	M8	15	3.7
50	117	135	194	45	148	32	15	M8	19	4.6
63	144	135	223	45	166	39	15	M8	25	5.8



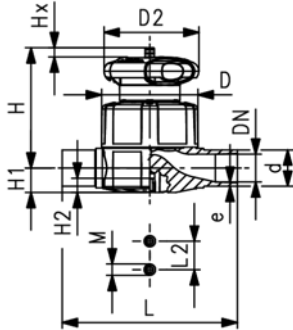
PROGEF Standard Diaphragm valve type 515 With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	167 515 102	167 515 112	167 515 132	167 515 162	0.297
25	20	10	271	167 515 103	167 515 113	167 515 133	167 515 163	0.380
32	25	10	481	167 515 104	167 515 114	167 515 134	167 515 164	0.947
40	32	10	759	167 515 105	167 515 115	167 515 135	167 515 165	1.104
50	40	10	1263	167 515 106	167 515 116	167 515 136	167 515 166	2.052
63	50	10	1728	167 515 107	167 515 117	167 515 137	167 515 167	2.601

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	124	25	73	14	12	M6	7	1.9
25	80	65	144	25	81	18	12	M6	10	2.3
32	88	87	155	25	107	22	12	M6	13	2.9
40	101	87	176	45	115	26	15	M8	15	3.7
50	117	135	193	45	148	32	15	M8	19	4.6
63	144	135	223	45	166	39	15	M8	25	5.8

Spare parts for valve body type 515

Valve body with spigot ends



d [mm]	Inch	DN [mm]	PVC-U solvent ce- ment spigot Code	PVC-C solvent ce- ment spigot Code	ABS solvent ce- ment spigot Code	
20	½	15	161 492 072	163 482 062	169 481 862	
25	¾	20	161 492 073	163 482 063	169 481 863	
32	1	25	161 492 074	163 482 064	169 481 864	
40	1 ¼	32	161 492 075	163 482 065	169 481 865	
50	1 ½	40	161 492 076	163 482 066	169 481 866	
63	2	50	161 492 077	163 482 067	169 481 867	



d [mm]	Inch	DN [mm]	PP-H socket fu- sion spigot Code	PP-H butt fusion spigot IR Code	PP-N butt fusion spigot IR Code	
20	½	15	167 483 342	167 483 882	168 480 462	
25	¾	20	167 483 343	167 483 883	168 480 463	
32	1	25	167 483 344	167 483 884	168 480 464	
40	1 ¼	32	167 483 345	167 483 885	168 480 465	
50	1 ½	40	167 483 346	167 483 886	168 480 466	
63	2	50	167 483 347	167 483 887	168 480 467	



d [mm]	Inch	DN [mm]	PVDF socket fu- sion spigot Code	PVDF butt fusion spigot IR Code	PVDF-HP butt fu- sion spigot IR Code	kg	
20	½	15	175 483 692	175 483 742	180 001 012	0.138	
25	¾	20	175 483 693	175 483 743	180 001 013	0.214	
32	1	25	175 483 694	175 483 744	180 001 014	0.292	
40	1 ¼	32	175 483 695	175 483 745	180 001 015	0.449	
50	1 ½	40	175 483 696	175 483 746	180 001 016	0.703	
63	2	50	175 483 697	175 483 747	180 001 017	1.231	

Spare parts for hand-operated valves



Bonnet complete



d [mm]	Inch	DN [mm]	Standard configuration PN10 Code	For pressure tight housing PN10 Code	Standard configuration PN16 Code
20	½	15	198 151 742	198 151 752	198 151 842
25	¾	20	198 151 743	198 151 753	198 151 843
32	1	25	198 151 744	198 151 754	198 151 844
40	1 ¼	32	198 151 745	198 151 755	198 151 845
50	1 ½	40	198 151 746	198 151 756	198 151 846
63	2	50	198 151 747	198 151 757	198 151 847

d [mm]	Inch	DN [mm]	For pressure tight housing PN16 Code	kg
20	½	15	198 151 852	0.000
25	¾	20	198 151 853	0.000
32	1	25	198 151 854	0.000
40	1 ¼	32	198 151 855	0.000
50	1 ½	40	198 151 856	0.000
63	2	50	198 151 857	0.000

Hand wheel



Model:

- Without position indicator

DN [mm]	Code	kg
15 - 20	198 204 162	0.035
25 - 32	198 204 164	0.068
40 - 50	198 104 166	0.190

Position indicator



d [mm]	Inch	DN [mm]	Code	kg
20	¾	15	167 484 992	0.011
25	¾	20	167 484 993	0.011
32	1	25	167 484 994	0.013
40	1 ¼	32	167 484 995	0.012
50	1 ½	40	167 484 996	0.014
63	2	50	167 484 997	0.015

Spindle assembly



Model:

- Incl. position indicator and compressor

DN-DN [mm]	Code	kg
15 - 20	198 204 327	0.049
25 - 32	198 204 328	0.135
40 - 50	198 204 329	0.251

Seal set



Model:

- For manual valve - pressure tight housing
- Incl. position indicator

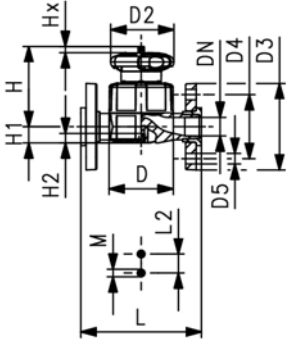
d [mm]	Inch	DN [mm]	EPDM Code	kg
20	¾	15	198 000 892	0.000
25	¾	20	198 000 893	0.000
32	1	25	198 000 894	0.000
40	1 ¼	32	198 000 895	0.000
50	1 ½	40	198 000 896	0.000
63	2	50	198 000 897	0.000

Diaphragm Valves 517

PROGEF Standard

Diaphragm valve type 517

With backing flanges PP-V metric/BS



Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10
- Flat sealing faces/serrated

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	NBR Code	EPDM Code	PTFE/EPDM Code	FPM Code	kg
20	15	10	125	167 517 102	167 517 112	167 517 132	167 517 162	0.480
25	20	10	271	167 517 103	167 517 113	167 517 133	167 517 163	0.628
32	25	10	481	167 517 104	167 517 114	167 517 134	167 517 164	1.296
40	32	10	759	167 517 105	167 517 115	167 517 135	167 517 165	1.640
50	40	10	1263	167 517 106	167 517 116	167 517 136	167 517 166	2.601
63	50	10	1728	167 517 107	167 517 117	167 517 137	167 517 167	3.544

d [mm]	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
20	65	65	95	65	14	130	25	73	14	12	M6	7
25	80	65	105	75	14	150	25	81	18	12	M6	10
32	88	87	115	85	14	160	25	107	22	12	M6	13
40	101	87	140	100	18	180	45	115	26	15	M8	15
50	117	135	150	110	18	200	45	148	32	15	M8	19
63	144	135	165	125	18	230	45	166	39	15	M8	25



PROGEF Standard Diaphragm valve type 317 With backing flanges PP-V metric

Model:

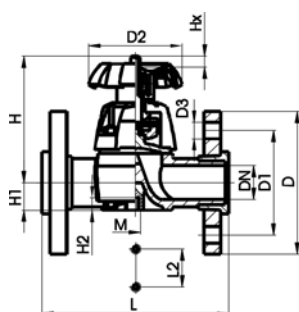
- Material: PP-H
- Flat sealing faces/serrated
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- DN 15-65 with backing flange
- DN 80-150 with fixed flange

Option:

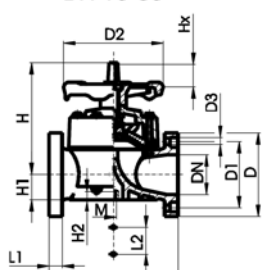
- Handwheel lockable DN15-65 (basic version not lockable)

* With PP fixed flanges, jointing faces flat

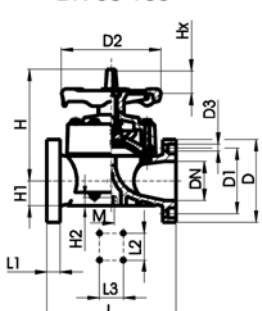
* **DN80 and DN150 fixed flanges metric and Inch ANSI B16.5**



DN 15-65



DN 80-100



DN 150

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	NBR Code	EPDM Code	CSM Code
75	65	2 ½	10	992	167 317 158	167 317 173	167 317 203
* 90	80	3	10	1700	167 317 009	167 317 024	167 317 054
* 110	100	4	10	2700	167 317 010	167 317 025	167 317 055
* 160	150	6	7	6033	167 317 012	167 317 027	167 317 057

d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	PTFE with EPDM supporting diaphragm Code	kg
75	65	2 ½	10	992	167 317 188	5.480
* 90	80	3	10	1700	167 317 039	8.600
* 110	100	4	10	2700	167 317 040	11.360
* 160	150	6	7	6033	167 317 042	25.000

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	AL	Lift = Hx [mm]
75	185	145	152	18	290		70		210	46	15	M8	4	35
* 90	200	160	270	18	310	35	120		265	57	23	M12	8	40
* 110	225	180	270	18	350	38	120		304	69	23	M12	8	50
* 160	282	241	400	23	480	29	100	200	437	108	23	M12	8	70



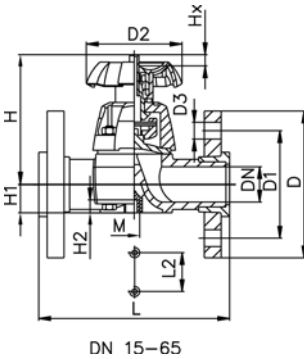
PROGEF Standard Diaphragm valve type 317 With backing flanges PP-st metric

Model:

- Material: PP-H
- Flat sealing faces/serrated
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Handwheel lockable DN15-65 (basic version not lockable)



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	PTFE with EPDM supporting di- aphragm Code	kg
75	65	2 ½	10	992	167 317 278	7.040

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	AL	Lift = Hx [mm]
75	185	145	152	18	290	70	210	46	15	M8	4	35



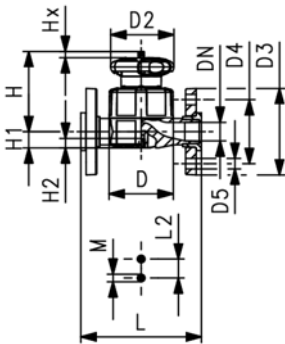
PROGEF Standard Diaphragm valve type 517 With backing flanges PP-V Inch ANSI

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- Flat sealing faces/serrated

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
½	15	10	125	167 517 712	167 517 732	0.490
¾	20	10	271	167 517 713	167 517 733	0.640
1	25	10	481	167 517 714	167 517 734	1.316
1 ¼	32	10	759	167 517 715	167 517 735	1.660
1 ½	40	10	1263	167 517 716	167 517 736	2.631
2	50	10	1728	167 517 717	167 517 737	3.572

Inch	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
½	65	65	95	60	16	130	25	73	14	12	M6	7
¾	80	65	105	70	16	150	25	81	18	12	M6	10
1	88	87	115	79	16	160	25	107	22	12	M6	13
1 ¼	101	87	140	89	16	180	45	115	26	15	M8	15
1 ½	117	135	150	98	16	200	45	148	32	15	M8	19
2	144	135	165	121	19	230	45	166	39	15	M8	25



PROGEF Standard Diaphragm valve type 317 With backing flanges PP-V Inch ANSI

Model:

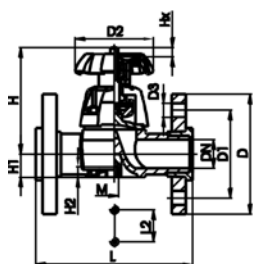
- Material: PP-H
- Jointing faces serrated
- With PP-V backing flanges DN 15-65
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

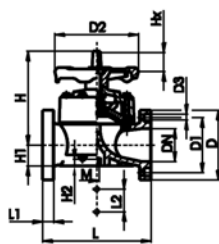
- Handwheel with built in locking mechanism
- * With PP fixed flanges, jointing faces flat

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE with EPDM supporting di- aphragm Code	NBR Code	kg
2 1/2	65	10	992	167 317 523	167 317 538		4.000
* 3	80	10	1700	167 317 024	167 317 039	167 317 009	7.840
* 4	100	10	2700	167 317 325	167 317 340	167 317 310	11.360
* 6	150	7	6033	167 317 027	167 317 042	167 317 012	25.000

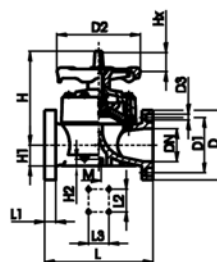
Inch	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	AL	Lift = Hx [mm]
2 1/2	185	140	152	19	290		70		210	46	15	M8	4	35
* 3	200	160	270	18	310	35	120		265	57	23	M12	8	40
* 4	225	190	270	19	350	38	120		304	69	23	M12	8	50
* 6	282	241	400	23	480	29	100	200	437	108	23	M12	8	70



DN 15-65



DN 80-100



DN 150



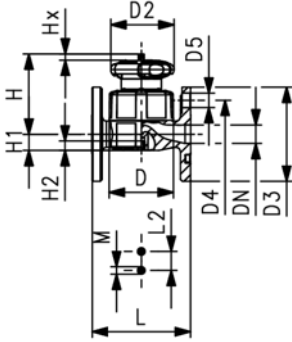
PROGEF Standard Diaphragm valve type 517 With fixed flanges PP-H JIS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Connecting dimension: JIS B2238/39 10K
- Flat sealing faces/serrated

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

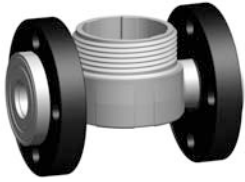


Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg	
1/2	15	10	125	167 517 912	167 517 932	0.434	
3/4	20	10	271	167 517 913	167 517 933	0.514	
1	25	10	481	167 517 914	167 517 934	0.000	
1 1/4	32	10	759	167 517 915	167 517 935	0.000	
1 1/2	40	10	1263	167 517 916	167 517 936	0.000	
2	50	10	1728	167 517 917	167 517 937	0.000	

Inch	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	
1/2	65	65	95	70	15	110	25	73	14	12	M6	7	
3/4	80	65	100	75	15	120	25	81	18	12	M6	10	
1	88	87	125	90	19	130	25	107	22	12	M6	13	
1 1/4	101	87	135	100	19	180	45	115	26	15	M8	15	
1 1/2	117	135	140	105	19	180	45	148	32	15	M8	19	
2	144	135	155	120	19	210	45	166	39	15	M8	25	

Spare parts for valve body type 517

Valve body with flange connection



d [mm]	Inch	DN [mm]	PVC-U JIS Code	PP-H JIS Code	PVDF JIS Code	kg	
20	½	15	161 480 282	167 484 402	175 483 532	0.000	
25	¾	20	161 480 283	167 484 403	175 483 533	0.000	
32	1	25	161 480 284	167 484 404	175 483 534	0.000	
40	1 ¼	32	161 480 285	167 484 405	175 483 535	0.000	
50	1 ½	40	161 480 286	167 484 406	175 483 536	0.000	
63	2	50	161 480 287	167 484 407	175 483 537	0.000	

Flange adaptor flat



d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-C metric Code	ABS metric Code	PP-H metric Code	
20	½	15	721 800 106	723 790 106	729 790 106	727 790 206	
25	¾	20	721 800 107	723 790 107	729 790 107	727 790 207	
32	1	25	721 800 108	723 790 108	729 790 108	727 790 208	
40	1 ¼	32	721 800 109	723 790 109	729 790 109	727 790 209	
50	1 ½	40	721 800 110	723 790 110	729 790 110	727 790 210	
63	2	50	721 790 111	723 790 111	729 790 111	727 790 211	

d [mm]	Inch	DN [mm]	PVDF metric Code	kg	
20	½	15	735 790 206	0.020	
25	¾	20	735 790 207	0.037	
32	1	25	735 790 208	0.050	
40	1 ¼	32	735 790 209	0.073	
50	1 ½	40	735 790 210	0.095	
63	2	50	735 790 211	0.142	

Flange



d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U ASTM Code	PP-V metric Code	PP-V ASTM Code	PP-ST metric Code
20	½	15	721 700 006	721 702 206	727 700 406	727 701 406	727 700 206
25	¾	20	721 700 007	721 702 207	727 700 407	727 701 407	727 700 207
32	1	25	721 700 008	721 702 208	727 700 408	727 701 408	727 700 208
40	1 ¼	32	721 700 009	721 702 209	727 700 409	727 701 409	727 700 209
50	1 ½	40	721 700 010	721 702 210	727 700 410	727 701 410	727 700 210
63	2	50	721 700 011	721 702 211	727 700 411	727 701 411	727 700 211

d [mm]	Inch	DN [mm]	PP-ST ASTM Code	kg	
20	½	15	727 701 206	0.210	
25	¾	20	727 701 207	0.250	
32	1	25	727 701 208	0.420	
40	1 ¼	32	727 701 209	0.670	
50	1 ½	40	727 701 210	0.860	
63	2	50	727 701 211	0.930	

Flat gasket



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg	
20	½	15	748 400 006	749 400 006	0.003	
25	¾	20	748 400 007	749 400 007	0.004	
32	1	25	748 400 008	749 400 008	0.002	
40	1 ¼	32	748 400 009	749 400 009	0.003	
50	1 ½	40	748 400 010	749 400 010	0.004	
63	2	50	748 400 011	749 400 011	0.006	

Spare parts for hand-operated valves



Bonnet complete



d [mm]	Inch	DN [mm]	Standard configuration PN10 Code	For pressure tight housing PN10 Code	Standard configuration PN16 Code	
20	1/2	15	198 151 742	198 151 752	198 151 842	
25	3/4	20	198 151 743	198 151 753	198 151 843	
32	1	25	198 151 744	198 151 754	198 151 844	
40	1 1/4	32	198 151 745	198 151 755	198 151 845	
50	1 1/2	40	198 151 746	198 151 756	198 151 846	
63	2	50	198 151 747	198 151 757	198 151 847	

d [mm]	Inch	DN [mm]	For pressure tight housing PN16 Code	kg	
20	1/2	15	198 151 852	0.000	
25	3/4	20	198 151 853	0.000	
32	1	25	198 151 854	0.000	
40	1 1/4	32	198 151 855	0.000	
50	1 1/2	40	198 151 856	0.000	
63	2	50	198 151 857	0.000	

Hand wheel



Model:

- Without position indicator

DN [mm]	Code	kg	
15 - 20	198 204 162	0.035	
25 - 32	198 204 164	0.068	
40 - 50	198 104 166	0.190	

Position indicator



d [mm]	Inch	DN [mm]	Code	kg
20	½	15	167 484 992	0.011
25	¾	20	167 484 993	0.011
32	1	25	167 484 994	0.013
40	1 ¼	32	167 484 995	0.012
50	1 ½	40	167 484 996	0.014
63	2	50	167 484 997	0.015

Spindle assembly



Model:

- Incl. position indicator and compressor

DN-DN [mm]	Code	kg
15 - 20	198 204 327	0.049
25 - 32	198 204 328	0.135
40 - 50	198 204 329	0.251

Seal set

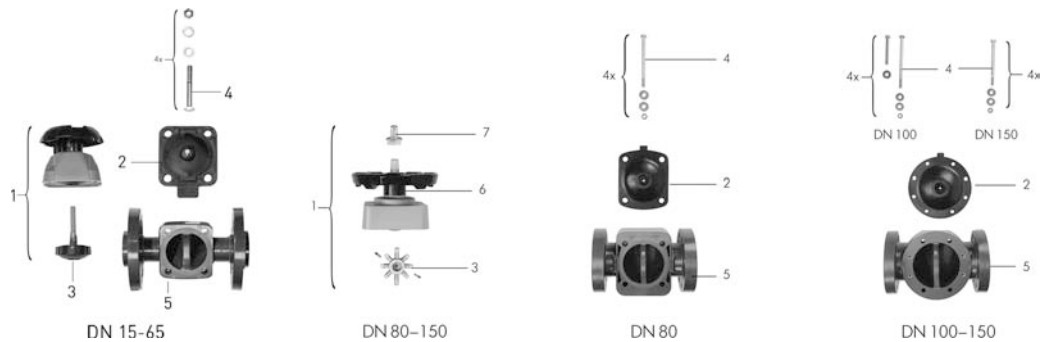


Model:

- For manual valve - pressure tight housing
- Incl. position indicator

d [mm]	Inch	DN [mm]	EPDM Code	kg
20	½	15	198 000 892	0.000
25	¾	20	198 000 893	0.000
32	1	25	198 000 894	0.000
40	1 ¼	32	198 000 895	0.000
50	1 ½	40	198 000 896	0.000
63	2	50	198 000 897	0.000

Spare parts diaphragm valve type 317



Bonnet complete

Model:

- Without diaphragm (1, 3)



d [mm]	Inch	DN [mm]	elastomer di- aphragm Code	PTFE diaphragm Code	kg
20	½	15	161 484 625	161 484 632	0.185
25	¾	20	161 484 626	161 484 633	0.299
32	1	25	161 484 627	161 484 634	0.367
40	1 ¼	32	161 484 628	161 484 635	0.361
50	1 ½	40	161 484 629	161 484 636	0.422
63	2	50	161 484 630	161 484 637	0.896
75	2 ½	65	161 484 631	161 484 638	1.526

table continued next page

d [mm]	Inch	DN [mm]	elastomer di- aphragm Code	PTFE diaphragm Code	kg
90	3	80	161 482 514	161 482 516	3.967
110	4	100	161 482 515	161 482 517	5.700
160	6	150	161 482 901	161 482 906	14.040



Diaphragm (2)

d [mm]	Inch	DN [mm]	NBR Code	EPDM Code	FPM Code	PTFE/EPDM Code	PTFE/FPM Code
20	½	15	161 311 710	161 481 022	161 481 092	161 311 698	161 481 926
25	¾	20	161 311 711	161 481 023	161 481 093	161 311 699	161 481 927
32	1	25	161 311 712	161 481 024	161 481 094	161 311 700	161 481 928
40	1 ¼	32	161 311 713	161 481 025	161 481 095	161 311 701	161 481 929
50	1 ½	40	161 311 714	161 481 026	161 481 096	161 311 702	161 481 930
63	2	50	161 311 715	161 481 027	161 481 097	161 311 703	161 481 931
75	2 ½	65	161 480 231	161 481 028	161 481 098	161 480 240	161 481 932
90	3	80	161 480 232	161 481 029	161 481 099	161 480 241	-
110	4	100	161 480 233	161 481 030	161 481 100	161 480 242	-
160	6	150	161 482 751	161 482 754	161 481 102	161 482 760	-

d [mm]	Inch	DN [mm]	PTFE/EPDM HP Code	CSM Code	kg
20	½	15	161 484 452	161 311 728	0.020
25	¾	20	161 484 453	161 311 729	0.035
32	1	25	161 484 454	161 311 730	0.050
40	1 ¼	32	161 484 455	161 311 731	0.065
50	1 ½	40	161 484 456	161 311 732	0.100
63	2	50	161 484 457	161 311 733	0.150
75	2 ½	65	161 484 458	161 480 237	0.230
90	3	80	161 484 459	161 480 238	0.300
110	4	100	161 484 460	161 480 239	0.450
160	6	150	161 482 760	161 482 757	2.500



Pressure spindle (3)

d [mm]	Inch	DN [mm]	elastomer di- aphragm Code	PTFE diaphragm Code	kg
20	½	15	161 484 688	161 484 696	0.060
25	¾	20	161 484 689	161 484 697	0.105
32	1	25	161 484 690	161 484 698	0.046
40	1 ¼	32	161 484 691	161 484 699	0.062
50	1 ½	40	161 484 692	161 484 700	0.057
63	2	50	161 484 693	161 484 701	0.113
75	2 ½	65	161 484 694	161 484 702	0.134
90	3	80	161 483 008	161 483 020	0.335
110	4	100	161 483 009	161 483 021	0.495
125	6	150	161 483 011	161 483 023	4.500



Fastening set (4)

Model:

- * with support plate

d [mm]	Inch	DN [mm]	for PVC-U PVC-C ABS Code	for PP PVDF * Code	kg
20	½	15	161 484 704	198 000 650	0.148
25	¾	20	161 484 705	198 000 651	0.173
32	1	25	161 484 706	198 000 652	0.286
40	1 ¼	32	161 484 707	198 000 653	0.401
50	1 ½	40	161 484 708	198 000 654	0.548
63	2	50	161 484 709	198 000 655	0.994
75	2 ½	65	161 483 032	161 483 032	0.679

table continued next page

d [mm]	Inch	DN [mm]	for PVC-U PVC-C ABS Code	for PP PVDF * Code	kg
90	3	80	161 483 033	161 483 033	0.845
110	4	100	161 483 034	161 483 034	1.440
160	6	150	161 483 037	161 483 037	0.400



Valve body with backing/flange (5)

Inch	d [mm]	DN [mm]	PVC-U metric Code	PVC-U JIS Code	PVC-U BS Code	PVC-U ANSI B16.5 Code
½	20	15	161 483 110	161 483 978	161 483 110	161 484 743
¾	25	20	161 483 111	161 483 979	161 483 111	161 484 744
1	32	25	161 483 112	161 483 980	161 483 112	161 484 745
1 ¼	40	32	161 483 113	161 483 981	161 483 113	161 484 746
1 ½	50	40	161 483 114	161 483 982	161 483 114	161 484 747
2	63	50	161 483 115	161 483 983	161 483 115	161 484 748
2 ½	75	65	161 483 116	161 483 984	161 483 116	161 484 749
3	90	80	161 481 764	161 482 400	161 481 764	
4	110	100	161 481 765	161 482 401	161 481 765	
6	160	150	161 482 696	161 482 696	161 481 696	

Inch	d [mm]	DN [mm]	PVC-C metric Code	ABS ANSI Code	PP-H metric Code	PP-H ANSI Code	PP-GF JIS Code
½	20	15	163 480 808		167 484 025	167 484 035	167 481 552
¾	25	20	163 480 809		167 484 026	167 484 036	167 481 553
1	32	25	163 480 810		167 484 027	167 484 037	167 481 554
1 ¼	40	32	163 480 811		167 484 028	167 484 038	167 481 555
1 ½	50	40	163 480 812		167 484 029	167 484 039	167 481 556
2	63	50	163 480 813		167 484 030	167 484 040	167 481 557
2 ½	75	65	163 480 814		167 484 031	167 484 041	
3	90	80	163 480 677	169 480 282	167 480 427	167 480 427	
4	110	100	163 480 678	169 480 283	167 480 428	167 480 428	167 480 476
6	160	150			167 480 577	167 480 577	167 480 577

Inch	d [mm]	DN [mm]	PVDF metric Code	PVDF ANSI Code	PVDF JIS Code	PP-V/PP-GF met- ric Code	kg
½	20	15	175 482 975	-	175 481 943		0.288
¾	25	20	175 482 976	-	175 481 944		0.405
1	32	25	175 482 977	-	175 481 945		0.643
1 ¼	40	32	175 482 978	-	175 481 946		0.917
1 ½	50	40	175 482 979	-	175 481 947		1.212
2	63	50	175 482 980	-	175 481 948		1.782
2 ½	75	65	175 482 981	-	175 481 949	169 480 392	2.880
3	90	80	175 480 189	-	175 480 737		4.745
4	110	100	175 480 190	175 480 748	175 480 738		7.466
6	160	150	175 481 002	175 481 002	175 481 002		15.300



O-ring seal (6)

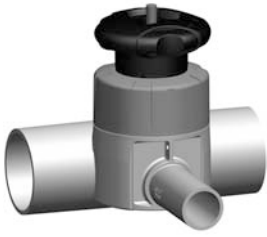
d [mm]	Inch	DN [mm]	EPDM Code	NBR Code	kg
90	3	80	-	745 410 107	0.007
110	4	100	-	745 410 107	0.007
160	6	150	748 410 212	-	

Indicator cap (7)

d [mm]	Inch	DN [mm]	PVC-U SAN Code	kg
90	3	80	161 481 759	0.032
110	4	100	161 481 760	0.035
160	6	150	161 482 744	0.010

Diaphragm Valves 519

PROGEF Standard Diaphragm valve type 519 With butt fusion spigots metric

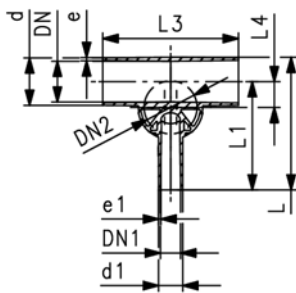
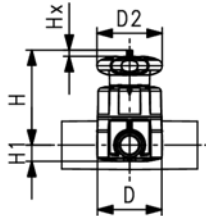


Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	20	15	15	15	10	57	167 519 101	167 519 301	0.321
25	20	20	15	20	10	89	167 519 103	167 519 303	0.397
25	25	20	20	20	10	118	167 519 104	167 519 304	0.399
32	20	25	15	20	10	80	167 519 107	167 519 307	0.424
32	25	25	20	20	10	105	167 519 108	167 519 308	0.426
32	32	25	25	25	10	231	167 519 109	167 519 309	0.980
40	20	32	15	25	10	85	167 519 112	167 519 312	1.008
50	20	40	15	20	10	86	167 519 118	167 519 318	0.485
50	25	40	20	25	10	160	167 519 119	167 519 319	1.054
50	32	40	25	25	10	206	167 519 120	167 519 320	1.056
63	20	50	15	20	10	84	167 519 125	167 519 325	0.524
63	25	50	20	25	10	150	167 519 126	167 519 326	1.097
63	32	50	25	25	10	184	167 519 127	167 519 327	1.100

d [mm]	D [mm]	D2 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	65	65	117	96	162	12	75	7	1.9	1.9
25	80	65	133	108	162	16	80	10	2.3	1.9
25	80	65	133	108	162	16	80	10	2.3	2.3
32	80	65	142	120	162	19	84	10	2.9	1.9
32	80	65	142	120	162	19	84	10	2.9	2.3
32	88	87	145	120	160	19	107	13	2.9	2.9
40	88	87	149	128	180	23	115	13	3.7	1.9
50	80	65	160	134	180	27	97	10	4.6	1.9
50	88	87	160	134	180	28	120	13	4.6	2.3
50	88	87	160	134	180	28	120	13	4.6	2.9
63	80	65	177	144	180	33	104	10	5.8	1.9
63	88	87	177	144	180	35	127	13	5.8	2.3
63	88	87	177	144	180	35	127	13	5.8	2.9

Spare parts for valve body type 519

Valve body with butt fusion spigot



d [mm]	Inch	PP-H Code	PP-Natur Code	PVDF-HP Code	kg
20 - 20	½	167 485 911	168 480 601	180 001 101	0.161
25 - 20	¾	167 485 912	168 480 602	180 001 102	0.226
25 - 25	¾	167 485 913	168 480 603	180 001 103	0.229
32 - 20	1	167 485 914	168 480 604	180 001 104	0.279
32 - 25	1	167 485 915	168 480 605	180 001 105	0.283
32 - 32	1	167 485 916	168 480 606	180 001 106	0.324
40 - 20	1 ¼	167 485 917	168 480 607	180 001 107	0.378
40 - 25	1 ¼	167 485 918	168 480 608	180 001 108	0.382
40 - 32	1 ¼	167 485 920	168 480 609	180 001 109	0.400
40 - 40	1 ¼	167 485 921	168 480 610	180 001 110	0.429

table continued next page

d [mm]	Inch	PP-H Code	PP-Natur Code	PVDF-HP Code	kg
50 - 20	1 ½	167 485 922	168 480 611	180 001 111	0.398
50 - 25	1 ½	167 485 923	168 480 612	180 001 112	0.468
50 - 32	1 ½	167 485 924	168 480 613	180 001 113	0.473
50 - 40	1 ½	167 485 925	168 480 614	180 001 114	1.091
50 - 50	1 ½	167 485 926	168 480 615	180 001 115	1.101
63 - 20	2	167 485 927	168 480 616	180 001 116	0.475
63 - 25	2	167 485 928	168 480 617	180 001 117	0.553
63 - 32	2	167 485 929	168 480 618	180 001 118	0.559
63 - 40	2	167 485 930	168 480 619	180 001 119	1.268
63 - 50	2	167 485 931	168 480 620	180 001 120	1.333
63 - 63	2	167 485 932	168 480 621	180 001 121	1.346
75 - 40	2 ½	167 485 933		180 001 122	0.712
75 - 50	2 ½	167 485 934		180 001 123	1.525
75 - 63	2 ½	167 485 935		180 001 124	1.571
90 - 20	3	167 485 936		180 001 125	0.838
90 - 25	3	167 485 937		180 001 126	0.845
90 - 32	3	167 485 938		180 001 127	0.861
90 - 50	3	167 485 939		180 001 128	1.786
90 - 63	3	167 485 940		180 001 129	1.814
110 - 20	4	167 485 941		180 001 130	1.108
110 - 25	4	167 485 942		180 001 131	1.114
110 - 32	4	167 485 943		180 001 132	1.131
110 - 50	4	167 485 944		180 001 133	2.202
110 - 63	4	167 485 945		180 001 134	2.232

Spare parts for hand-operated valves



Bonnet complete



d [mm]	Inch	DN [mm]	Standard configu- ration PN10 Code	For pressure tight housing PN10 Code	Standard configu- ration PN16 Code
20	¾	15	198 151 742	198 151 752	198 151 842
25	¾	20	198 151 743	198 151 753	198 151 843
32	1	25	198 151 744	198 151 754	198 151 844
40	1 ¼	32	198 151 745	198 151 755	198 151 845
50	1 ½	40	198 151 746	198 151 756	198 151 846
63	2	50	198 151 747	198 151 757	198 151 847

table continued next page

d [mm]	Inch	DN [mm]	For pressure tight housing PN16 Code	kg
20	½	15	198 151 852	0.000
25	¾	20	198 151 853	0.000
32	1	25	198 151 854	0.000
40	1 ¼	32	198 151 855	0.000
50	1 ½	40	198 151 856	0.000
63	2	50	198 151 857	0.000

Hand wheel



Model:

- Without position indicator

DN [mm]	Code	kg
15 - 20	198 204 162	0.035
25 - 32	198 204 164	0.068
40 - 50	198 104 166	0.190

Position indicator



d [mm]	Inch	DN [mm]	Code	kg
20	½	15	167 484 992	0.011
25	¾	20	167 484 993	0.011
32	1	25	167 484 994	0.013
40	1 ¼	32	167 484 995	0.012
50	1 ½	40	167 484 996	0.014
63	2	50	167 484 997	0.015

Spindle assembly



Model:

- Incl. position indicator and compressor

DN-DN [mm]	Code	kg
15 - 20	198 204 327	0.049
25 - 32	198 204 328	0.135
40 - 50	198 204 329	0.251

Seal set



Model:

- For manual valve - pressure tight housing
- Incl. position indicator

d [mm]	Inch	DN [mm]	EPDM Code	kg
20	½	15	198 000 892	0.000
25	¾	20	198 000 893	0.000
32	1	25	198 000 894	0.000
40	1 ¼	32	198 000 895	0.000
50	1 ½	40	198 000 896	0.000
63	2	50	198 000 897	0.000

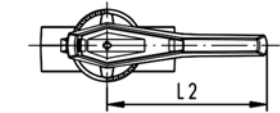
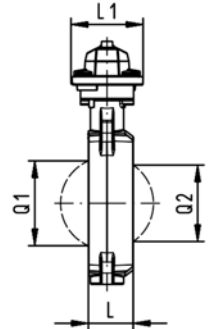
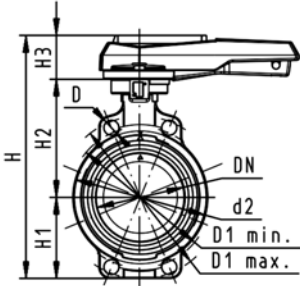
Butterfly valves

PROGEF Standard Butterfly valve type 567 Hand lever with ratchet settings



Model:

- Material: PP-H, DN350-DN600 material PP-R
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



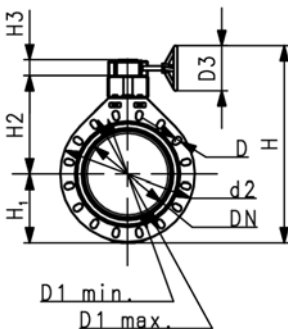
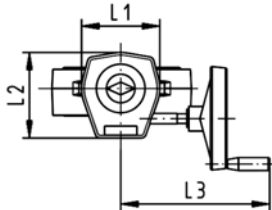
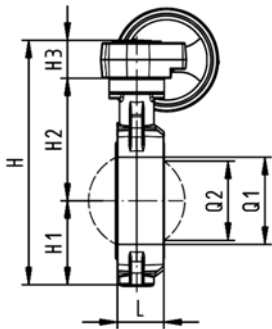
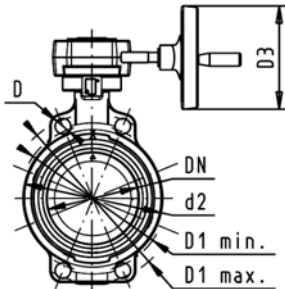
d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 567 002	167 567 022	0.969
75	65	2 ½	10	2200	167 567 003	167 567 023	1.061
90	80	3	10	3000	167 567 004	167 567 024	1.191
110	100	4	10	6500	167 567 005	167 567 025	1.751
140	125	5	10	11500	167 567 006	167 567 026	2.199
160	150	6	10	16600	167 567 007	167 567 027	2.989
225	200	8	10	39600	167 567 008	167 567 028	4.706
280	250	10	8	55200	167 567 009	167 567 029	11.841
315	300	12	8	80000	167 567 010	167 567 030	14.816

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	19	120.0	125.0	104	264	77	134	54	45	106	205	40	
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	19	175.0	190.5	161	325	104	167	55	56	106	255	88	74
140	23	210.0	215.9	187	352	117	181	55	64	106	255	113	97
160	24	241.3	241.3	215	373	130	189	55	72	106	255	139	123
225	23	290.0	295.0	267	435	158	210	67	73	140	408	178	169
280	25	353.0	362.0	329	554	205	264	85	113	149	408	210	207
315	25	400.0	432.0	379	598	228	285	85	113	149	408	256	253

PROGEF Standard Butterfly valve type 567 Reduction gear with handwheel

Model:

- Material: PP-H, DN350-DN600 material PP-R
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 567 042	167 567 062	3.007
75	65	2 ½	10	2200	167 567 043	167 567 063	3.099
90	80	3	10	3000	167 567 044	167 567 064	3.229
110	100	4	10	6500	167 567 045	167 567 065	3.741
140	125	5	10	11500	167 567 046	167 567 066	4.189
160	150	6	10	16600	167 567 047	167 567 067	4.979
225	200	8	10	39600	167 567 048	167 567 068	6.159
280	250	10	8	51000	167 567 049	167 567 069	13.091
315	300	12	8	73000	167 567 050	167 567 070	16.066
355	350	14	6	90000	167 567 051	167 567 071	40.000
400	400	16	6	115000	167 567 052	167 567 072	50.000
450	450	18	5	155000	167 567 053	167 567 073	70.000
500	500	20	4	204000	167 567 054	167 567 074	90.000
630	600	24	4	265000	167 567 055	167 567 075	125.000

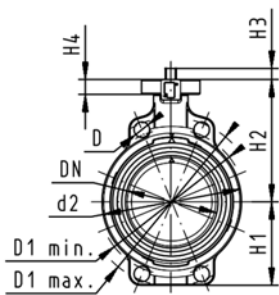
d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	19	120	125	104	160	77	134	60	45	120	132	236	40	
75	19	140	145	115	160	83	140	60	46	120	132	236	54	35
90	19	150	160	131	160	89	146	60	49	120	132	236	67	50
110	19	175	191	160	160	104	167	60	56	120	132	236	88	74
140	23	210	216	187	160	117	181	60	64	120	132	236	113	97
160	24	241	241	215	160	130	189	60	72	120	132	236	139	123
225	23	290	295	267	160	158	210	60	73	120	132	236	178	169
280	25	353	362	329	160	205	264	60	113	134	151	261	210	207
315	25	400	432	379	160	228	285	60	113	134	151	261	256	253
355	29	445	477	535	200	268	410	69	129	180	168	218	325	305
400	29	510	540	595	200	300	435	69	169	180	195	218	353	350
450	32	565	578	635	250	320	520	81	179	220	195	240	393	390
500	32	620	635	700	350	350	550	94	190	220	226	260	444	440
630	35	725	750	813	350	420	610	94	209	220	260	260	530	527



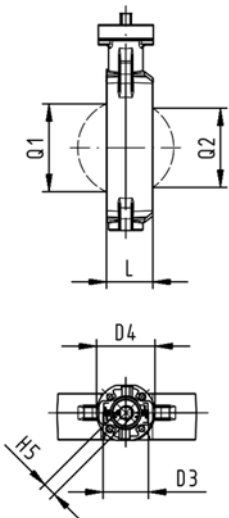
Butterfly valve type 567 PP-H Bare shaft

Model:

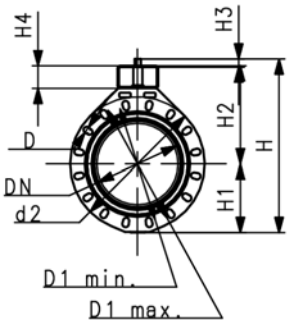
- Material: PP-H, DN350-DN600 material PP-R
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Interface F07 for the dimensions DN50-200 according to DIN/ISO 5211
- Interface F10 for the dimensions DN250-300 according to DIN/ISO 5211
- Interface F12 for the Dimensions DN350-400 according to DIN/ISO 5211
- Interface F14 for the Dimensions DN450-600 according to DIN/ISO 5211



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 567 802	167 567 822	0.747
75	65	2 ½	10	2200	167 567 803	167 567 823	0.839
90	80	3	10	3000	167 567 804	167 567 824	0.969
110	100	4	10	6500	167 567 805	167 567 825	1.481
140	125	5	10	11500	167 567 806	167 567 826	1.929
160	150	6	10	16600	167 567 807	167 567 827	2.719
225	200	8	10	39600	167 567 808	167 567 828	3.899
280	250	10	8	51000	167 567 809	167 567 829	10.251
315	300	12	8	73000	167 567 810	167 567 830	13.226
355	350	14	6	90000	167 567 811	167 567 831	35.000
400	400	16	6	115000	167 567 812	167 567 832	45.000
450	450	18	5	155000	167 567 813	167 567 833	60.000
500	500	20	4	204000	167 567 814	167 567 834	75.000
630	600	24	4	265000	167 567 815	167 567 835	110.000



d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	D4 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	Q1 [mm]	Q2 [mm]
63	19	120	125	104	70	90	77	134	27	23	11	45	40	
75	19	140	145	115	70	90	83	140	27	23	11	46	54	35
90	19	150	160	131	70	90	89	146	27	23	11	49	67	50
110	19	175	191	161	70	90	104	167	16	23	14	56	88	74
140	23	210	216	187	70	90	117	181	16	23	14	64	113	97
160	24	241	241	215	70	90	130	189	19	23	17	72	139	123
225	23	290	295	267	70	90	158	210	19	23	17	73	178	169
280	25	353	362	329	102	125	205	264	40	23	22	113	210	207
315	25	400	432	379	102	125	228	285	40	23	22	113	256	253
355	29	445	477	535	125	180	268	410	31	100	27	129	325	305
400	29	510	540	595	125	180	300	435	31	100	27	169	353	350
450	32	565	578	635	140	220	320	520	35	120	36	179	393	390
500	32	620	635	700	140	220	350	550	35	120	36	190	444	440
630	35	725	750	813	140	220	420	610	35	120	36	209	530	527

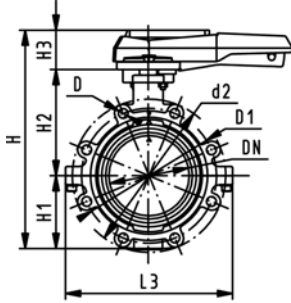




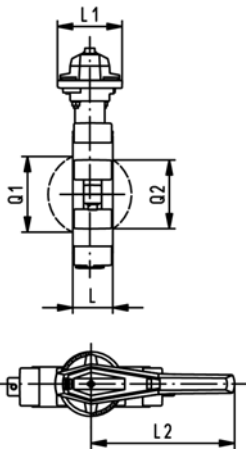
PROGEF Standard Lugstyle butterfly valve type 568 Hand lever with ratchet settings

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 568 002	167 568 022	3.055
75	65	2 ½	10	2200	167 568 003	167 568 023	3.397
90	80	3	10	3000	167 568 004	167 568 024	4.402
110	100	4	10	6500	167 568 005	167 568 025	5.835
140	125	5	10	11500	167 568 006	167 568 026	7.665
160	150	6	10	16600	167 568 007	167 568 027	9.449
225	200	8	10	39600	167 568 008	167 568 028	14.654



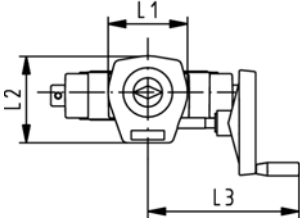
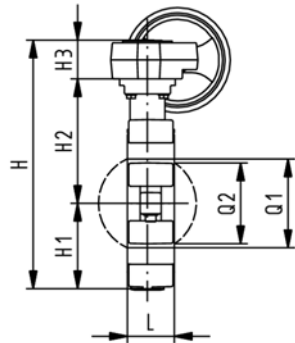
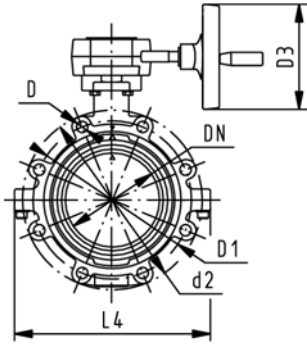
d [mm]	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	265	77	134	54	45	106	205	150	40	
75	170	M16	145	277	83	140	54	46	106	205	160	54	35
90	184	M16	160	289	89	146	54	49	106	205	205	67	50
110	216	M16	180	326	104	167	55	56	106	255	244	88	74
140	246	M16	210	353	117	181	55	64	106	255	272	113	97
160	273	M20	240	374	130	189	55	72	106	255	297	139	123
225	334	M20	295	435	158	210	67	73	140	408	360	178	169



PROGEF Standard Lugstyle butterfly valve type 568 Reduction gear with handwheel

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 568 042	167 568 062	5.093
75	65	2 ½	10	2200	167 568 043	167 568 063	5.435
90	80	3	10	3000	167 568 044	167 568 064	6.440
110	100	4	10	6500	167 568 045	167 568 065	7.825
140	125	5	10	11500	167 568 046	167 568 066	9.655
160	150	6	10	16600	167 568 047	167 568 067	11.439
225	200	8	10	39600	167 568 048	167 568 068	16.107

d [mm]	d2 [mm]	D	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Q1 [mm]
63	150	M16	125	160	279	77	134	60	45	120	132	236	150	40
75	170	M16	145	160	291	83	140	60	46	120	132	236	160	54
90	184	M16	160	160	303	89	146	60	49	120	132	236	205	67
110	216	M16	180	160	339	104	167	60	56	120	132	236	244	88
140	246	M16	210	160	366	117	181	60	64	120	132	236	272	113
160	273	M20	240	160	387	130	189	60	72	120	132	236	297	139
225	334	M20	295	160	436	158	210	60	73	120	132	236	360	178

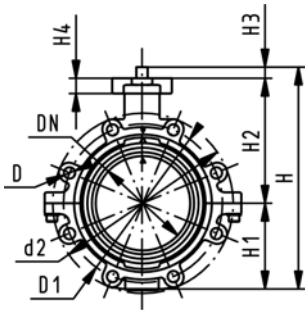
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169



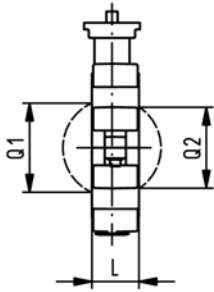
PROGEF Standard Lugstyle butterfly valve type 568 Bare shaft

Model:

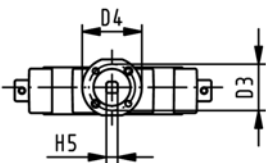
- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Interface F07 according to DIN/ISO 5211



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 568 802	167 568 822	2.833
75	65	2 ½	10	2200	167 568 803	167 568 823	3.175
90	80	3	10	3000	167 568 804	167 568 824	4.180
110	100	4	10	6500	167 568 805	167 568 825	5.565
140	125	5	10	11500	167 568 806	167 568 826	7.395
160	150	6	10	16600	167 568 807	167 568 827	9.179
225	200	8	10	39600	167 568 808	167 568 828	13.847



d [mm]	d2 [mm]	D	D1 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	70	90	222	77	134	27	23	45	40	
75	170	M16	145	70	90	235	83	140	27	23	46	54	35
90	184	M16	160	70	90	247	89	146	27	23	49	67	50
110	216	M16	180	70	90	287	104	167	16	23	56	88	74
140	246	M16	210	70	90	313	117	181	16	23	64	113	97
160	273	M20	240	70	90	335	130	189	19	23	72	139	123
225	334	M20	295	70	90	387	158	210	19	23	73	178	169

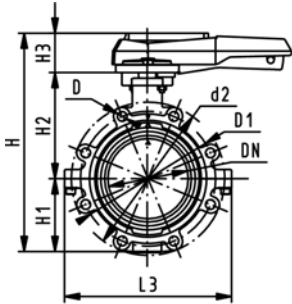




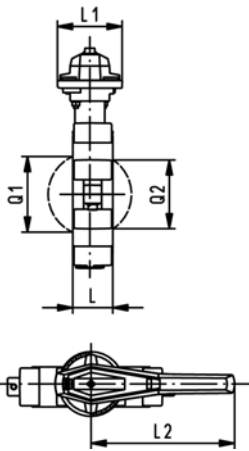
PROGEF Standard Lugstyle butterfly valve type 568 Hand lever with ratchet settings

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
2	50	10	1470	167 568 102	167 568 122	3.055	
2 ½	65	10	2200	167 568 103	167 568 123	3.397	
3	80	10	3000	167 568 104	167 568 124	3.773	
4	100	10	6500	167 568 105	167 568 125	5.835	
5	125	10	11500	167 568 106	167 568 126	7.665	
6	150	10	16600	167 568 107	167 568 127	9.449	
8	200	10	39600	167 568 108	167 568 128	14.654	



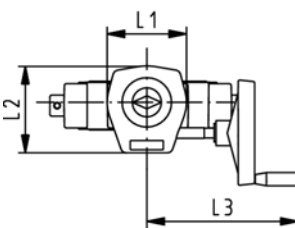
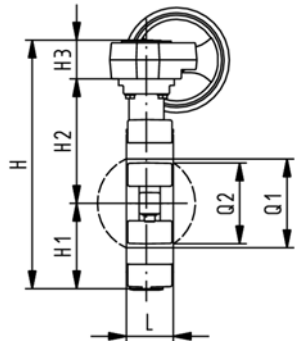
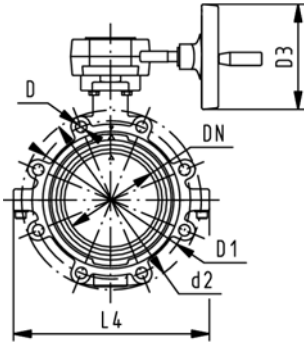
Inch	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]	
2	150	UNC 5/8	121	265	77	134	54	45	106	205	150	40		
2 ½	170	UNC 5/8	138	277	83	140	54	46	106	205	160	54	35	
3	177	UNC 5/8	152	289	89	146	54	49	106	205	175	67	50	
4	216	UNC 5/8	191	326	104	167	55	56	106	255	244	88	74	
5	246	UNC 3/4	216	353	117	181	55	64	106	255	272	113	97	
6	273	UNC 3/4	241	374	130	189	55	72	106	255	297	139	123	
8	334	UNC 3/4	298	435	158	210	67	73	140	408	360	178	169	



PROGEF Standard Lugstyle butterfly valve type 568 Reduction gear with handwheel

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	167 568 142	167 568 162	5.093
2 ½	65	10	2200	167 568 143	167 568 163	5.435
3	80	10	3000	167 568 144	167 568 164	5.811
4	100	10	6500	167 568 145	167 568 165	7.825
5	125	10	11500	167 568 146	167 568 166	9.655
6	150	10	16600	167 568 147	167 568 167	11.439
8	200	10	39600	167 568 148	167 568 168	16.107

Inch	d2 [mm]	D	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	Q1 [mm]
2	150	UNC 5/8	121	160	279	77	134	60	45	120	132	236	150	40
2 ½	170	UNC 5/8	138	160	291	83	140	60	46	120	132	236	160	54
3	177	UNC 5/8	152	160	303	89	146	60	49	120	132	236	175	67
4	216	UNC 5/8	191	160	339	104	167	60	56	120	132	236	244	88
5	246	UNC 3/4	216	160	366	117	181	60	64	120	132	236	272	113
6	273	UNC 3/4	241	160	387	130	189	60	72	120	132	236	297	139
8	334	UNC 3/4	298	160	436	158	210	60	73	120	132	236	360	178

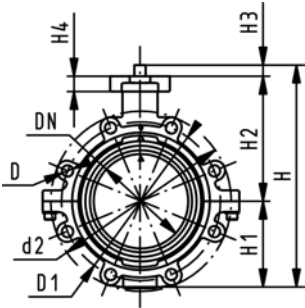
Inch	Q2 [mm]
2	
2 ½	35
3	50
4	74
5	97
6	123
8	169



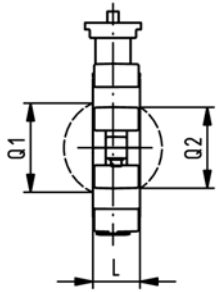
PROGEF Standard Lugstyle butterfly valve type 568 Bare shaft

Model:

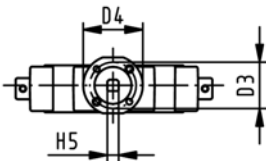
- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Interface F07 according to DIN/ISO 5211



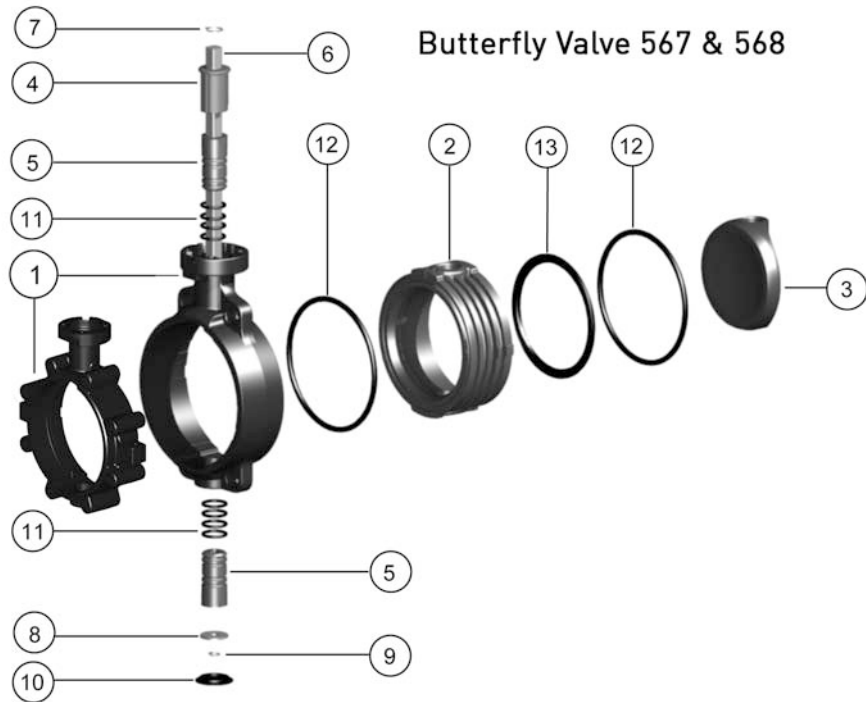
Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	10	1470	167 568 902	167 568 922	2.833
2 ½	65	10	2200	167 568 903	167 568 923	3.175
3	80	10	3000	167 568 904	167 568 924	3.551
4	100	10	6500	167 568 905	167 568 925	5.565
5	125	10	11500	167 568 906	167 568 926	7.395
6	150	10	16600	167 568 907	167 568 927	9.179
8	200	10	39600	167 568 908	167 568 928	13.847



Inch	d2 [mm]	D	D1 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	Q1 [mm]	Q2 [mm]
2	150	UNC 5/8	121	70	90	222	77	134	27	23	45	40	
2 ½	170	UNC 5/8	138	70	90	235	83	140	27	23	46	54	35
3	177	UNC 5/8	152	70	90	247	89	146	27	23	49	67	50
4	216	UNC 5/8	191	70	90	287	104	167	16	23	56	88	74
5	246	UNC 3/4	216	70	90	313	117	181	16	23	64	113	97
6	273	UNC 3/4	241	70	90	335	130	189	19	23	72	139	123
8	334	UNC 3/4	298	70	90	387	158	210	19	23	73	178	169



Spare parts butterfly valve type 567/568



Inner body

Model:

- Inner body consisting of: inner body (2) and profile seal (13)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
63	2	50	161 486 861	161 486 873	163 481 591	163 481 603	169 481 067
75	2 ½	65	161 486 862	161 486 874	163 481 592	163 481 604	169 481 068
90	3	80	161 486 863	161 486 875	163 481 593	163 481 605	169 481 069
110	4	100	161 486 864	161 486 876	163 481 594	163 481 606	169 481 070
140	5	125	161 486 865	161 486 877	163 481 595	163 481 607	169 481 071
160	6	150	161 486 866	161 486 878	163 481 596	163 481 608	169 481 072
225	8	200	161 486 867	161 486 879	163 481 597	163 481 609	169 481 073
280	10	250	161 486 868	161 486 880			
315	12	300	161 486 869	161 486 881			

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	PVDF FPM Code	kg
63	2	50	167 484 271	167 484 286	175 483 413	0.190
75	2 ½	65	167 484 272	167 484 287	175 483 414	0.230
90	3	80	167 484 273	167 484 288	175 483 415	0.326
110	4	100	167 484 274	167 484 289	175 483 416	0.581
140	5	125	167 484 275	167 484 290	175 483 417	0.858
160	6	150	167 484 276	167 484 291	175 483 418	1.063
225	8	200	167 484 277	167 484 292	175 483 419	1.823
280	10	250	167 484 278	167 484 293	175 483 420	4.368
315	12	300	167 484 279	167 484 294	175 483 421	5.691



Flange seal (12)

Model:

- included in delivery 1 pcs.

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
63	2	50	161 486 959	161 486 979	0.012
75	2 ½	65	161 486 960	161 486 980	0.014
90	3	80	161 486 961	161 486 981	0.016
110	4	100	161 486 962	161 486 982	0.036
125	5	125	161 486 963	161 486 983	0.043
160	6	150	161 486 964	161 486 984	0.050
225	8	200	161 486 965	161 486 985	0.064
280	10	250	161 486 966	161 486 986	0.091
315	12	300	161 486 967	161 486 987	0.104



Disc (3)

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
63	2	50	161 490 889	163 481 451	169 480 951	167 483 226
75	2 ½	65	161 490 890	163 481 452	169 480 952	167 483 227
90	3	80	161 490 891	163 481 453	169 480 953	167 483 228
110	4	100	161 490 892	163 481 454	169 480 954	167 483 229
140	5	125	161 490 893	163 481 455	169 480 955	167 483 230
160	6	150	161 490 894	163 481 456	169 480 956	167 483 231
225	8	200	161 490 895	163 481 457	169 480 957	167 483 232
280	10	250	161 490 896			167 483 233
315	12	300	161 490 897			167 483 234

d [mm]	Inch	DN [mm]	PVDF Code	kg
63	2	50	175 483 251	0.045
75	2 ½	65	175 483 252	0.082
90	3	80	175 483 253	0.132
110	4	100	175 483 254	0.254
140	5	125	175 483 255	0.456
160	6	150	175 483 256	0.590
225	8	200	175 483 257	2.029
280	10	250	175 483 258	6.068
315	12	300	175 483 259	9.442



Bearing bush (5, 11)

Model:

- included in delivery 2 pcs.
- With O-ring
- Bearing bushes in PP-H are used in PP-H and ABS butterfly valves

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	PP-H EPDM Code
63	2	50	161 486 886	161 486 892	163 481 576	163 481 582	167 484 259
75	2 ½	65	161 486 886	161 486 892	163 481 576	163 481 582	167 484 259
90	3	80	161 486 886	161 486 892	163 481 576	163 481 582	167 484 259
110	4	100	161 486 887	161 486 893	163 481 577	163 481 583	167 484 260
140	5	125	161 486 887	161 486 893	163 481 577	163 481 583	167 484 260
160	6	150	161 486 888	161 486 894	163 481 578	163 481 584	167 484 261
225	8	200	161 486 888	161 486 894	163 481 578	163 481 584	167 484 261
280	10	250	161 486 889	161 486 895			167 484 262
315	12	300	161 486 889	161 486 895			167 484 262

d [mm]	Inch	DN [mm]	PP-H FPM Code	PVDF FPM Code	kg
63	2	50	167 484 265	175 483 426	0.038
75	2 ½	65	167 484 265	175 483 426	0.038
90	3	80	167 484 265	175 483 426	0.038
110	4	100	167 484 266	175 483 427	0.069

table continued next page

d [mm]	Inch	DN [mm]	PP-H FPM Code	PVDF FPM Code	kg
140	5	125	167 484 266	175 483 427	0.069
160	6	150	167 484 267	175 483 428	0.145
225	8	200	167 484 267	175 483 428	0.145
280	10	250	167 484 268	175 483 429	0.360
315	12	300	167 484 268	175 483 429	0.360



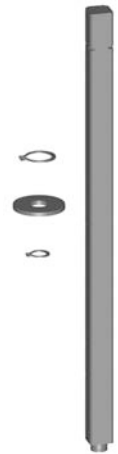
End stop PP glasfiber reinforced (4)

d [mm]	Inch	DN [mm]	Code	kg
63	2	50	167 483 251	0.023
75	2 ½	65	167 483 251	0.023
90	3	80	167 483 251	0.023
110	4	100	167 483 252	0.033
140	5	125	167 483 252	0.033
160	6	150	167 483 253	0.049
225	8	200	167 483 253	0.049
280	10	250	167 483 254	0.096
315	12	300	167 483 254	0.096

Shaft set

Model:

- Shaft set consisting of: shaft chrom steel 1.4301 AISI 304 (6), retention ring (7, 9) and washer (8)



d [mm]	Inch	DN [mm]	Code	kg
63	2	50	161 486 899	0.225
75	2 ½	65	161 486 900	0.237
90	3	80	161 486 901	0.249
110	4	100	161 486 902	0.429
140	5	125	161 486 903	0.469
160	6	150	161 486 904	0.749
225	8	200	161 486 905	0.844
280	10	250	161 486 906	2.335
315	12	300	161 486 907	2.536

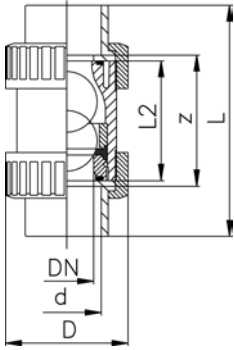
Hand lever



d [mm]	Inch	DN [mm]	with index plate Code	with fine adjust- ment Code	kg
63	2	50	161 486 690	161 486 325	0.485
75	2 ½	65	161 486 690	161 486 325	0.485
90	3	80	161 486 690	161 486 325	0.485
110	4	100	161 486 691	161 486 326	0.540
140	5	125	161 486 691	161 486 326	0.540
160	6	150	161 486 694	161 486 327	0.537
225	8	200	161 486 695	161 486 328	1.375
280	10	250	161 486 697		0.330
315	12	300	161 486 697		0.330

Ball Check Valves 360

PROGEF Standard Ball check valve type 360 With fusion sockets metric

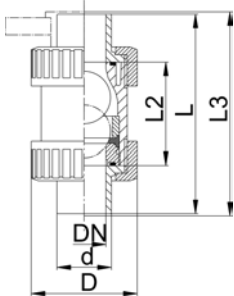


Model:

- Material: PP-H
- For easy installation and removal
- The ball seals at a minimum water column of 2 m
- Vibration free even at high flow velocity
- For horizontal or vertical installation

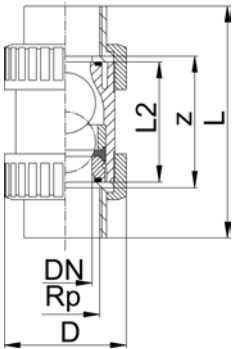
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
16	10	10	170	167 360 401	167 360 411	0.079	46	98	62	72
20	15	10	150	167 360 402	167 360 412	0.079	46	101	62	73
25	20	10	330	167 360 403	167 360 413	0.134	56	119	74	87
32	25	10	390	167 360 404	167 360 414	0.203	67	130	78	94
40	32	10	710	167 360 405	167 360 415	0.380	82	149	88	109
50	40	10	900	167 360 406	167 360 416	0.612	98	162	94	118
63	50	10	1390	167 360 407	167 360 417	1.116	120	195	113	143

PROGEF Standard Ball check valve type 360 With socket fusion spigots metric



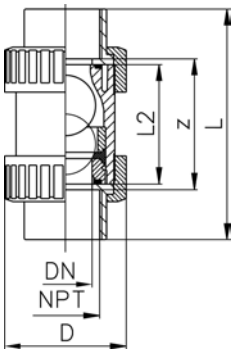
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
16	10	10	170	167 360 441	167 360 451	0.080	46	109	62
20	15	10	150	167 360 442	167 360 452	0.080	46	119	62
25	20	10	330	167 360 443	167 360 453	0.136	56	140	74
32	25	10	390	167 360 444	167 360 454	0.208	67	150	78
40	32	10	710	167 360 445	167 360 455	0.386	82	171	88
50	40	10	900	167 360 446	167 360 456	0.631	97	191	94
63	50	10	1390	167 360 447	167 360 457	1.149	119	220	113

PROGEF Standard Ball check valve type 360 With threaded sockets Rp



Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	z [mm]	D [mm]	L [mm]	L2 [mm]
3/8	10	10	170	167 360 421	167 360 431	0.078	66	46	98	62
1/2	15	10	150	167 360 422	167 360 432	0.078	66	46	101	62
3/4	20	10	330	167 360 423	167 360 433	0.131	78	56	119	74
1	25	10	390	167 360 424	167 360 434	0.199	82	67	130	78
1 1/4	32	10	710	167 360 425	167 360 435	0.372	95	82	149	88
1 1/2	40	10	900	167 360 426	167 360 436	0.618	108	98	162	94
2	50	10	1390	167 360 427	167 360 437	1.129	134	120	195	113

PROGEF Standard Ball check valve type 360 With threaded sockets NPT



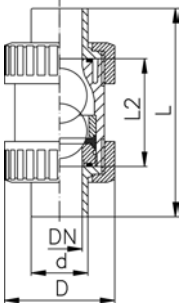
Model:

- Material: PP-H
- For easy installation and removal
- The ball seals at a minimum water column of 2 m
- Vibration free even at high flow velocity
- For horizontal or vertical installation
- With tapered female thread NPT*

* Not available from stock

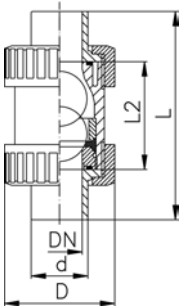
NPT [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	z [mm]	D [mm]	L [mm]	L2 [mm]
3/8	10	10	170	167 360 581	167 360 591	0.078	75	46	111	62
1/2	15	10	150	167 360 582	167 360 592	0.078	68	46	111	62
3/4	20	10	330	167 360 583	167 360 593	0.131	89	56	130	74
1	25	10	330	167 360 584	167 360 594	0.199	88	67	140	78
1 1/4	32	10	710	167 360 585	167 360 595	0.372	111	82	165	88
1 1/2	40	10	900	167 360 586	167 360 596	0.618	109	98	169	94
2	50	10	1390	167 360 587	167 360 597	1.129	136	120	199	113

Ball check valve type 360 PP-H With butt fusion spigots IR-Plus SDR11



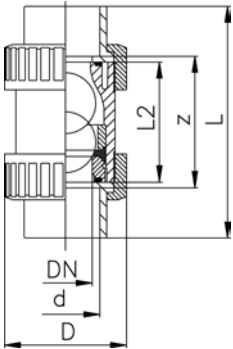
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
20	15	10	150	167 360 482	167 360 492	0.080	46	130	62
25	20	10	330	167 360 483	167 360 493	0.136	56	144	74
32	25	10	390	167 360 484	167 360 494	0.208	67	150	78
40	32	10	710	167 360 485	167 360 495	0.386	82	171	88
50	40	10	900	167 360 486	167 360 496	0.631	97	191	94
63	50	10	1390	167 360 487	167 360 497	1.149	119	220	113

PROGEF Standard Ball check valve type 360 With butt fusion spigots IR-Plus SDR17,6



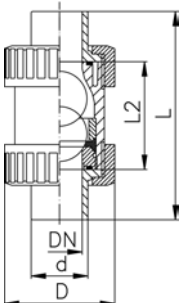
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
25	20	6	330	167 360 463	167 360 473	0.136	56	144	74
32	25	6	390	167 360 464	167 360 474	0.208	67	150	78
40	32	6	710	167 360 465	167 360 475	0.386	82	171	88
50	40	6	900	167 360 466	167 360 476	0.631	97	191	94
63	50	6	1390	167 360 467	167 360 477	1.149	119	220	113

Ball check valve type 360 PP-H With fusion sockets PE80 metric



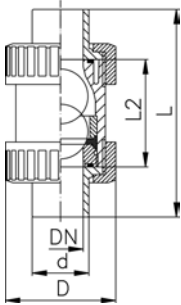
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
16	10	10	170	167 360 721	167 360 731	0.079	46	98	62	72
20	15	10	150	167 360 722	167 360 732	0.079	46	101	62	73
25	20	10	330	167 360 723	167 360 733	0.134	56	119	74	87
32	25	10	390	167 360 724	167 360 734	0.203	67	130	78	94
40	32	10	710	167 360 725	167 360 735	0.380	82	149	88	109
50	40	10	900	167 360 726	167 360 736	0.612	98	162	94	118
63	50	10	1390	167 360 727	167 360 737	1.116	120	195	113	143

Ball check valve type 360 PP-H With butt fusion spigots long PE100 SDR11 metric



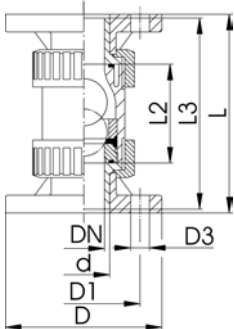
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
20	15	10	150	167 360 682	167 360 692	0.080	46	196	62
25	20	10	330	167 360 683	167 360 693	0.136	56	216	74
32	25	10	390	167 360 684	167 360 694	0.208	67	224	78
40	32	10	710	167 360 685	167 360 695	0.386	82	250	88
50	40	10	900	167 360 686	167 360 696	0.631	97	268	94
63	50	10	1390	167 360 687	167 360 697	1.149	119	299	113

Ball check valve type 360 PP-H With butt fusion spigots PE100 IR-Plus SDR17,6



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
40	32	6	710	167 360 665	167 360 675	0.386	82	171	88
50	40	6	900	167 360 666	167 360 676	0.631	97	191	94
63	50	6	1390	167 360 667	167 360 677	1.149	119	220	113

PROGEF Standard Ball check valve type 360 With fixed flanges serrated metric

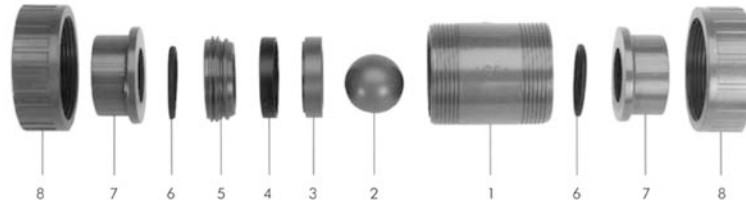


d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	150	167 360 502	167 360 512	0.206
25	20	¾	10	330	167 360 503	167 360 513	0.299
32	25	1	10	390	167 360 504	167 360 514	0.437
40	32	1 ¼	10	710	167 360 505	167 360 515	0.731
50	40	1 ½	10	900	167 360 506	167 360 516	1.044
63	50	2	10	1390	167 360 507	167 360 517	1.711

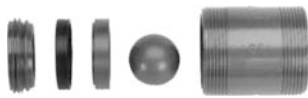
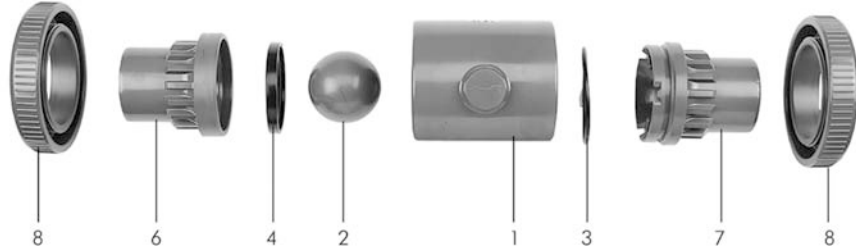
d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L2 [mm]	L3 [mm]
20	95	65	14	130	62	119
25	105	75	14	150	74	140
32	115	85	14	160	78	150
40	140	100	18	180	88	171
50	150	110	18	200	94	191
63	165	125	18	230	113	220

Spare parts ball check valve type 360

DN 10-50



DN 80



Central part

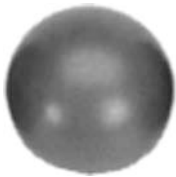
Model:

- Central part consisting of: body (1), ball (2), support ring (3), sealing ring (4) and union bush (5)

d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PVC-C EPDM Code	PVC-C FPM Code	ABS EPDM Code
16	3/8	10	161 483 851	161 483 861	163 480 645	163 480 655	169 480 250
20	1/2	15	161 483 852	161 483 862	163 480 646	163 480 656	169 480 251
25	3/4	20	161 483 853	161 483 863	163 480 647	163 480 657	169 480 252
32	1	25	161 483 854	161 483 864	163 480 648	163 480 658	169 480 253
40	1 1/4	32	161 483 855	161 483 865	163 480 649	163 480 659	169 480 254
50	1 1/2	40	161 483 856	161 483 866	163 480 650	163 480 660	169 480 255
63	2	50	161 483 857	161 483 867	163 480 651	163 480 661	169 480 256

d [mm]	Inch	DN [mm]	PP-H EPDM Code	PP-H FPM Code	kg
16	3/8	10	167 481 125	167 481 135	0.040
20	1/2	15	167 481 126	167 481 136	0.040
25	3/4	20	167 481 127	167 481 137	0.070
32	1	25	167 481 128	167 481 138	0.104
40	1 1/4	32	167 481 129	167 481 139	0.182
50	1 1/2	40	167 481 130	167 481 140	0.285
63	2	50	167 481 131	167 481 141	0.506

Ball (2)



d [mm]	Inch	DN [mm]	PVC-U Code	PP-H with talc density 1.24 Code	PP-H 100% Code	PVDF Code	kg
16	3/8	10	161 330 304	167 481 165	167 480 024	175 480 153	0.010
20	1/2	15	161 330 304	167 481 165	167 480 024	175 480 153	0.010
25	3/4	20	161 330 354	167 481 166	167 480 025	175 480 154	0.014
32	1	25	161 330 404	167 481 167	167 480 026	175 480 155	0.028
40	1 1/4	32	161 330 454	167 481 168	167 480 027	175 480 156	0.064
50	1 1/2	40	161 330 504	167 481 169	167 480 028	175 480 157	0.093
63	2	50	161 330 554	167 481 170	167 480 029	175 480 158	0.214
90	3	80	161 330 654				0.475



Sealing ring (4)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 483 259	161 483 265	0.004
20	1/2	15	161 483 259	161 483 265	0.004
25	3/4	20	161 483 260	161 483 266	0.006
32	1	25	161 483 261	161 483 267	0.003
40	1 1/4	32	161 483 262	161 483 268	0.015
50	1 1/2	40	161 483 263	161 483 269	0.025
63	2	50	161 483 264	161 483 270	0.050
90	3	80	161 480 141	161 480 149	0.080



Face seal (6)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	748 410 042	749 410 042	0.002
20	1/2	15	748 410 042	749 410 042	0.002
25	3/4	20	748 410 116	749 410 116	0.030
32	1	25	748 410 103	749 410 103	0.002
40	1 1/4	32	748 410 027	749 410 027	0.003
50	1 1/2	40	748 410 010	749 410 010	0.007
63	2	50	748 410 011	749 410 011	0.010
90	3	80	748 410 099	749 410 099	0.015



Union nut (8)

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	ABS Code	PP-H Code
16	3/8	10	161 340 617	163 480 995	169 480 101	167 480 786
20	1/2	15	161 340 617	163 480 995	169 480 101	167 480 786
25	3/4	20	161 340 618	163 480 081	169 480 102	167 480 787
32	1	25	161 340 619	163 480 082	169 480 103	167 480 788
40	1 1/4	32	161 340 620	163 480 083	169 480 104	167 480 789
50	1 1/2	40	161 340 621	163 480 084	169 480 105	167 480 790
63	2	50	161 480 522	163 480 085	169 480 106	167 480 791
90	3	80	161 340 623			

d [mm]	Inch	DN [mm]	PVDF Code	kg
16	3/8	10	175 480 819	0.025
20	1/2	15	175 480 819	0.025
25	3/4	20	175 480 820	0.042
32	1	25	175 480 821	0.062
40	1 1/4	32	175 480 822	0.105
50	1 1/2	40	175 480 823	0.170
63	2	50	175 480 824	0.310
90	3	80		0.475



Valve end with socket (7)

d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U JIS Code	PVC-U ANSI Code	PVC-C metric Code	ABS metric Code
16	3/8	10	161 480 536	161 484 601	161 482 377	163 480 522	169 480 152
20	1/2	15	161 480 537	161 484 602	-	163 480 523	169 480 153
25	3/4	20	161 480 538	161 484 603	161 482 379	163 480 524	169 480 154
32	1	25	161 480 539	161 484 604	161 482 380	163 480 525	169 480 155
40	1 1/4	32	161 480 540	161 484 605	161 482 381	163 480 526	169 480 156
50	1 1/2	40	161 480 541	161 484 606	161 482 382	163 480 527	169 480 157
63	2	50	161 480 542		161 482 383	163 480 528	169 480 158

table continued next page

d [mm]	Inch	DN [mm]	PE80 metric Code	PP-H metric Code	PP-H ANSI Code	PVDF metric Code	kg
16	3/8	10	173 480 000	167 480 159	167 480 452	175 480 031	0.012
20	1/2	15	173 480 001	167 480 160	167 480 453	175 480 032	0.012
25	3/4	20	173 480 002	167 480 161	167 480 454	175 480 033	0.021
32	1	25	173 480 003	167 480 162	167 480 455	175 480 034	0.031
40	1 1/4	32	173 480 004	167 480 163	167 480 456	175 480 035	0.056
50	1 1/2	40	173 480 005	167 480 164	167 480 457	175 480 036	0.088
63	2	50	173 480 006	167 480 165	167 480 458	175 480 037	0.150

Valve end with spigot (7)



d [mm]	Inch	DN [mm]	PVC-U metric Code	PVC-U metric in- let and outlet Code	PP-H metric Code	PP-H SDR11 long Code
16	3/8	10	161 482 345		167 480 527	-
20	1/2	15	161 482 346		167 480 528	167 482 546
25	3/4	20	161 482 347		167 480 529	167 482 547
32	1	25	161 482 348		167 480 530	167 482 548
40	1 1/4	32	161 482 349		167 480 531	167 482 549
50	1 1/2	40	161 482 350		167 480 532	167 482 550
63	2	50	161 482 351		167 480 533	167 482 551
90	3	80		161 480 132		
90	3	80		161 480 133		

d [mm]	Inch	DN [mm]	PP-H SDR11 IR Code	PP-H SDR17 Code	PVDF metric Code	PVDF metric Code
16	3/8	10	-	-	175 480 787	175 480 796
20	1/2	15	167 480 546	167 480 537	175 480 788	175 480 797
25	3/4	20	167 480 547	167 480 538	175 480 789	175 480 798
32	1	25	167 480 548	167 480 539	175 480 790	175 480 799
40	1 1/4	32	167 480 549	167 480 540	175 480 791	175 480 800
50	1 1/2	40	167 480 550	167 480 541	175 480 792	175 480 801
63	2	50	167 480 551	167 480 542	175 480 793	175 480 802
90	3	80				
90	3	80				

d [mm]	Inch	DN [mm]	PE100 SDR11 Code	PE100 SDR11 long Code	PE100 SDR17,6 Code	kg
16	3/8	10	193 480 026			0.006
20	1/2	15	193 480 027	193 480 127		0.011
25	3/4	20	193 480 028	193 480 128	193 480 014	0.012
32	1	25	193 480 029	193 480 129	193 480 015	0.025
40	1 1/4	32	193 480 030	193 480 130	193 480 016	0.037
50	1 1/2	40	193 480 031	193 480 131	193 480 017	0.057
63	2	50	193 480 032	193 480 132	193 480 018	0.098
90	3	80				0.526
90	3	80				0.580

Threaded bush (7)



Inch	DN [mm]	PVC-U Rp Code	PVC-U Rc Code	PVC-U NPT Code	PP-H Rp Code	PP-H NPT Code
3/8	10	161 480 550	-	161 482 389	167 480 166	167 480 452
1/2	15	161 480 551	161 484 610	-	167 480 167	167 480 453
3/4	20	161 480 552	161 484 611	161 482 391	167 480 168	167 480 454
1	25	161 480 553	161 484 612	161 482 392	167 480 169	167 480 455
1 1/4	32	161 480 554	161 484 613	161 482 393	167 480 170	167 480 456
1 1/2	40	161 480 555	161 484 614	161 482 394	167 480 171	167 480 457
2	50	161 480 556		161 482 395	167 480 172	167 480 458

table continued next page

Inch	DN [mm]	PVDF NPT Code	kg
3/8	10	175 480 727	0.017
1/2	15	175 480 728	0.014
3/4	20	175 480 729	0.022
1	25	175 480 730	0.035
1 1/4	32	175 480 731	0.069
1 1/2	40	175 480 732	0.108
2	50	175 480 733	0.193

Fixed flange jointing face serrated metric



d [mm]	Inch	DN [mm]	PP-H Code	PVDF Code	kg
20	1/2	15	727 740 106	735 740 106	0.124
25	3/4	20	727 740 107	735 740 107	0.162
32	1	25	727 740 108	735 740 108	0.229
40	1 1/4	32	727 740 109	735 740 109	0.340
50	1 1/2	40	727 740 110	735 740 110	0.409
63	2	50	727 740 111	735 740 111	0.551

Seal set (4, 6)



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
16	3/8	10	161 482 910	161 482 920	0.003
20	1/2	15	161 482 910	161 482 920	0.003
25	3/4	20	161 482 911	161 482 921	0.007
32	1	25	161 482 912	161 482 922	0.011
40	1 1/4	32	161 482 913	161 482 923	0.016
50	1 1/2	40	161 482 914	161 482 924	0.032
63	2	50	161 482 915	161 482 925	0.065

Body (1)



d [mm]	Inch	DN [mm]	PVC-U Code	kg
90	3	80	161 480 158	1.790

Component Parts for Flange Assembly Ball Check Valves Type 360

27 79 02

PROGEF Standard flange adaptor Joining face flat/serrated

d [mm]	DN [mm]	PN	Code	kg
20	15	10	727 790 206	0.011
25	20	10	727 790 207	0.022
32	25	10	727 790 208	0.033
40	32	10	727 790 209	0.046
50	40	10	727 790 210	0.062
63	50	10	727 790 211	0.090
75	65	10	727 790 212	0.163
90	80	10	727 790 213	0.233
110	100	10	727 790 214	0.319

EPDM 48 44 07
FPM 49 44 07

Profile flange gasket metric

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	16	748 440 705	749 440 705	0.007
20	15	16	748 440 706	749 440 706	0.008
25	20	16	748 440 707	749 440 707	0.011
32	25	16	748 440 708	749 440 708	0.014
40	32	16	748 440 709	749 440 709	0.021
50	40	16	748 440 710	749 440 710	0.022
63	50	16	748 440 711	749 440 711	0.041
75	65	16	748 440 712	749 440 712	0.055
90	80	16	748 440 713	749 440 713	0.062
110	100	16	748 440 714	749 440 714	0.085
125	100	16	748 440 715	749 440 715	0.158
140	125	16	748 440 716	749 440 716	0.118
160 / 180	150	16	748 440 717	749 440 717	0.153
200	200	16	748 440 719	749 440 719	0.263
225	200	16	748 440 720	749 440 720	0.181
250	250	16	748 440 721	749 440 721	0.410
280	250	16	748 440 722	749 440 722	0.226
315	300	16	748 440 723	749 440 723	0.334
355	350	16	748 440 724	749 440 724	0.410
400	400	16	748 440 725	749 440 725	0.513
450	500	16	748 440 726	749 440 726	0.718
500	500	16	748 440 727	749 440 727	0.718
560	600	16	748 440 728	749 440 728	0.923
630	600	16	748 440 729	749 440 729	0.923

27 70 04
27 70 05

Backing flange PP-V For butt fusion systems metric

d [mm]	Inch	DN [mm]	PN	Code	kg
20		15	16	727 700 406	0.080
25		20	16	727 700 407	0.100
32		25	16	727 700 408	0.140
40		32	16	727 700 409	0.220
50		40	16	727 700 410	0.210
63		50	16	727 700 411	0.380

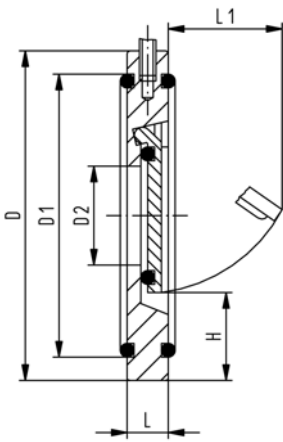
27 70 04
27 70 05

Backing flange PP-V For socket systems metric

d [mm]	Inch	DN [mm]	PN	Code	kg	
20		15	16	727 700 406	0.080	
25		20	16	727 700 407	0.100	
32		25	16	727 700 408	0.140	
40		32	16	727 700 409	0.220	
50		40	16	727 700 410	0.210	
63		50	16	727 700 411	0.380	

Wafer Check Valves 369

PROGEF Standard Wafer check valve type 369 Without spring



Model:

- Material: PP-H
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

- Installation between metric flange adaptors
- It is necessary to use a special outlet flange adaptor PP or PE on the outgoing side of the wafer check valve
- Centering by body diameter
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed
- Wafer check valves without reset spring are not recommended for pulsating flows (production of noise)

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
40	32	6	167 369 002	167 369 022	0.090
50	40	6	167 369 003	167 369 023	0.100
63	50	6	167 369 004	167 369 024	0.170
75	65	6	167 369 005	167 369 025	0.220
90	80	6	167 369 006	167 369 026	0.260
110	100	6	167 369 007	167 369 027	0.370
140	125	6	167 369 009	167 369 029	0.500
160	150	6	167 369 010	167 369 030	0.740
225	200	6	167 369 011	167 369 031	1.400
280	250	6	167 369 012	167 369 032	2.400
315	300	6	167 369 013	167 369 033	3.520

d [mm]	D [mm]	D1 [mm]	D2 [mm]	H [mm]	L [mm]	L1 [mm]	Opening pressure ver- tical [mbar]	Opening pressure hor- izontal [mbar]	Minimum water col- umn for sealing [m]
40	85	59	18	25	15	22	10	1	3.0
50	95	72	22	28	16	27	10	1	3.0
63	109	86	32	29	18	40	10	1	3.0
75	129	105	40	31	20	55	10	1	3.0
90	144	119	54	32	20	67	10	1	3.0
110	164	146	70	31	23	67	10	1	3.0
140	195	173	92	35	23	94	10	1	3.0
160	220	197	105	42	26	100	10	1	3.0
225	275	255	154	38	35	152	18	1	3.0
280	330	312	192	41	40	180	18	1	3.0
315	380	363	227	41	45	215	18	1	3.0



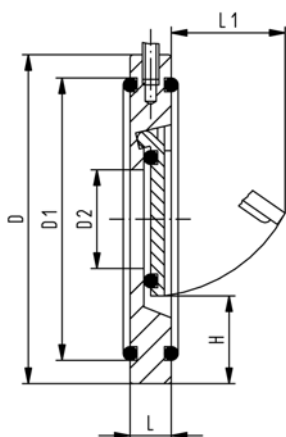
PROGEF Standard Wafer check valve type 369 With V4A spring (stainless steel 316)

Model:

- Material: PP-H
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

- Installation between metric flange adaptors
- It is necessary to use a special outlet flange adaptor PP or PE on the outgoing side of the wafer check valve
- Centering by body diameter
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
40	32	6	167 369 042	167 369 062	0.090
50	40	6	167 369 043	167 369 063	0.100
63	50	6	167 369 044	167 369 064	0.170
75	65	6	167 369 045	167 369 065	0.220
90	80	6	167 369 046	167 369 066	0.260
110	100	6	167 369 047	167 369 067	0.370
140	125	6	167 369 049	167 369 069	0.500
160	150	6	167 369 050	167 369 070	0.740
225	200	6	167 369 051	167 369 071	1.400
280	250	6	167 369 052	167 369 072	2.400
315	300	6	167 369 053	167 369 073	3.520

d [mm]	D [mm]	D1 [mm]	D2 [mm]	H [mm]	L [mm]	L1 [mm]	Opening pressure ver- tical [mbar]	Opening pressure hor- izontal [mbar]	Minimum water col- umn for sealing [m]
40	85	59	18	25	15	22	30	20	3.0
50	95	72	22	28	16	27	30	20	3.0
63	109	86	32	29	18	40	30	20	3.0
75	129	105	40	31	20	55	30	20	3.0
90	144	119	54	32	20	67	30	20	3.0
110	164	146	70	31	23	67	30	20	3.0
140	195	173	92	35	23	94	30	20	3.0
160	220	197	105	42	26	100	30	20	3.0
225	275	255	154	38	35	152	38	20	3.0
280	330	312	192	41	40	180	38	20	3.0
315	380	363	227	41	45	215	38	20	3.0



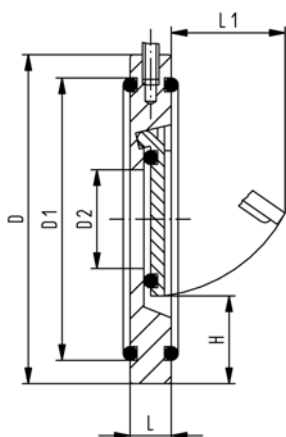
PROGEF Standard Wafer check valve type 369 With Hastelloy C spring

Model:

- Material: PP-H
- Supporting eyelets for simple fitting
- Suitable for vertical and horizontal mounting

Installation instruction:

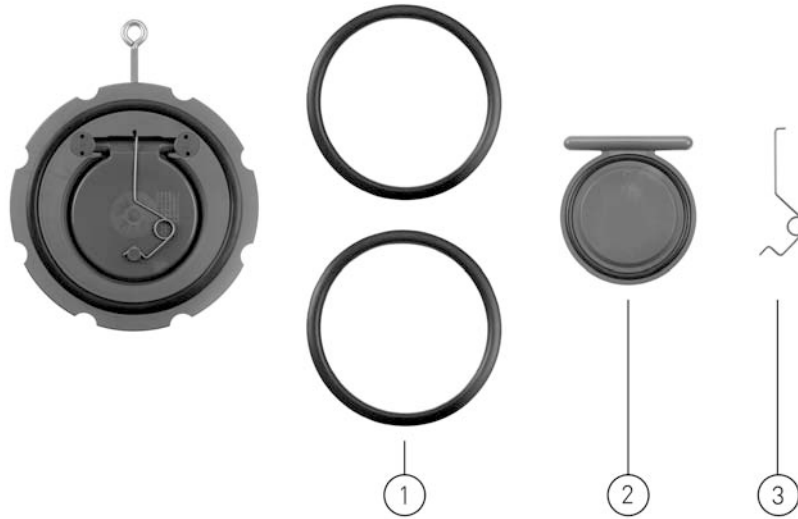
- Installation between metric flange adaptors
- It is necessary to use a special outlet flange adaptor PP or PE on the outgoing side of the wafer check valve
- Centering by body diameter
- Sealing with special flange gasket (except DN32, o-ring)
- A stabilizing zone of at least 5 times nominal diameter (DN) should be provided before and after the wafer check valve (10 times DN is recommended)
- No direct installation on pump flange or following bend allowed



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
40	32	6	167 369 082	167 369 102	0.090
50	40	6	167 369 083	167 369 103	0.100
63	50	6	167 369 084	167 369 104	0.170
75	65	6	167 369 085	167 369 105	0.220
90	80	6	167 369 086	167 369 106	0.260
110	100	6	167 369 087	167 369 107	0.370
140	125	6	167 369 089	167 369 109	0.500
160	150	6	167 369 090	167 369 110	0.740
225	200	6	167 369 091	167 369 111	1.400
280	250	6	167 369 092	167 369 112	2.400
315	300	6	167 369 093	167 369 113	3.520

d [mm]	D [mm]	D1 [mm]	D2 [mm]	H [mm]	L [mm]	L1 [mm]	Opening pressure ver- tical [mbar]	Opening pressure hor- izontal [mbar]	Minimum water col- umn for sealing [m]
40	85	59	18	25	15	22	30	20	3.0
50	95	72	22	28	16	27	30	20	3.0
63	109	86	32	29	18	40	30	20	3.0
75	129	105	40	31	20	55	30	20	3.0
90	144	119	54	32	20	67	30	20	3.0
110	164	146	70	31	23	67	30	20	3.0
140	195	173	92	35	23	94	30	20	3.0
160	220	197	105	42	26	100	30	20	3.0
225	275	255	154	38	35	152	38	20	3.0
280	330	312	192	41	40	180	38	20	3.0
315	380	363	227	41	45	215	38	20	3.0

Spare parts wafer check valve type 369



Seal set (1)



d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
40	1 ¼	32	161 484 875	161 484 887	0.004
50	1 ½	40	161 486 959	161 486 979	0.012
63	2	50	161 486 960	161 486 980	0.014
75	2 ½	65	161 486 961	161 486 981	0.016
90	3	80	161 486 962	161 486 982	0.036
110	4	100	161 486 962	161 486 982	0.036
140	5	125	161 486 964	161 486 984	0.050
160	6	150	161 486 964	161 486 984	0.050
225	8	200	161 486 974	161 486 993	0.064
280	10	250	161 486 966	161 486 986	0.091
315	12	300	161 486 967	161 486 987	0.104

Disc set (2)



d [mm]	Inch	DN [mm]	PVC-U EPDM Code	PVC-U FPM Code	PP-H EPDM Code	PP-H FPM Code
40	1 ¼	32	161 369 122	161 369 142	167 369 122	167 369 142
50	1 ½	40	161 369 123	161 369 143	167 369 123	167 369 143
63	2	50	161 369 124	161 369 144	167 369 124	167 369 144
75	2 ½	65	161 369 125	161 369 145	167 369 125	167 369 145
90	3	80	161 369 126	161 369 146	167 369 126	167 369 146
110	4	100	161 369 127	161 369 147	167 369 127	167 369 147
140	5	125	161 369 128	161 369 148	167 369 128	167 369 148
160	6	150	161 369 129	161 369 149	167 369 129	167 369 149
225	8	200	161 369 130	161 369 150	167 369 130	167 369 150
280	10	250	161 369 131	161 369 151	167 369 131	167 369 151
315	12	300	161 369 132	161 369 152	167 369 132	167 369 152

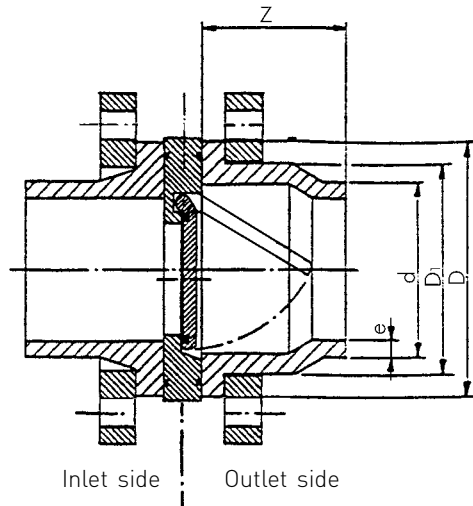
d [mm]	Inch	DN [mm]	PVDF FPM Code	kg
40	1 ¼	32	175 369 142	0.005
50	1 ½	40	175 369 143	0.010
63	2	50	175 369 144	0.022
75	2 ½	65	175 369 145	0.041
90	3	80	175 369 146	0.055
110	4	100	175 369 147	0.114
140	5	125	175 369 148	0.168
160	6	150	175 369 149	0.250
225	8	200	175 369 150	0.615
280	10	250	175 369 151	1.081
315	12	300	175 369 152	1.628



Spring (3)

d [mm]	Inch	DN [mm]	V4A Code	Hastelloy C Code	kg
40	1 ¼	32	161 484 900	161 484 912	0.001
50	1 ½	40	161 484 901	161 484 913	0.001
63	2	50	161 484 902	161 484 914	0.001
75	2 ½	65	161 484 903	161 484 915	0.001
90	3	80	161 484 904	161 484 916	0.002
110	4	100	161 484 905	161 484 917	0.002
140	5	125	161 484 905	161 484 917	0.002
160	6	150	161 484 907	161 484 919	0.006
225	8	200	161 484 908	161 484 920	0.019
280	10	250	161 484 909	161 484 921	0.027
315	12	300	161 484 910	161 484 922	0.043

Component Parts for Flange Assembly, Type 369 PP



Warning: This outlet flange adaptor has to be installed on the outlet side!

Socket Fusion System PP/PE Inlet side

PP/PE
Flange adaptor
metric

d	DN	Inch	PP Code	PE Code				
40	32	1 1/4	727 790 209	753 790 209				
50	40	1 1/2	727 790 210	753 790 210				
63	50	2	727 790 211	753 790 211				
75	65	2 1/2	727 790 212	753 790 212				
90	80	3	727 790 213	753 790 213				
110	100	4	727 790 214	753 790 214				

Backing flange metric
for socket fusion systems
Connecting dimension
DIN 2501 PN 10

d	DN	Inch	for flange adaptor metric PP-V black	for flange adaptor metric PP with steel ring				
40	32	1 1/4	727 700 409	727 700 209				
50	40	1 1/2	727 700 410	727 700 210				
63	50	2	727 700 411	727 700 211				
75	65	2 1/2	727 700 412	727 700 212				
90	80	3	727 700 413	727 700 213				
110	100	4	727 700 414	727 700 214				

Outlet side

PP/PE
Outlet flange adaptor
with fusion socket
metric

d	DN	Inch	Jointing face flat PP Code	Jointing face flat PE Code	D	D ₁	Z
40	32	1 1/4	727 800 009	733 800 009	61	50	35
50	40	1 1/2	727 800 010	733 800 010	73	61	38
63	50	2	727 800 011	733 800 011	90	76	41
75	65	2 1/2	727 800 012	733 800 012	106	90	49
90	80	3	727 800 013	733 800 013	125	108	65
110	100	4	727 800 014	733 800 014	150	130	62

Backing flange metric
for socket fusion systems
Connecting dimension
DIN 2501 PN 10

d	DN	Inch	for outlet flange adaptor PP-V black	for outlet flange adaptor PP with steel ring				
40	32	1 1/4	727 700 409	727 700 209				
50	40	1 1/2	727 700 410	727 700 210				
63	50	2	727 700 411	727 700 211				
75	65	2 1/2	727 700 412	727 700 212				
90	80	3	727 700 413	727 700 213				
110	100	4	727 700 414	727 700 214				

Component Parts for Flange Assembly, Type 369 PP

Butt Fusion System PP/PE

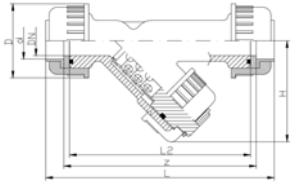
Inlet side

	d	DN	Inch	PP		PE					
				Code		Code					
PP/PE Flange Adapter metric SDR 11	40	32	1¼	727 798 509		753 798 609					
	50	40	1½	727 798 510		753 798 610					
	63	50	2	727 798 511		753 798 611					
	75	65	2½	727 798 512		753 798 612					
	90	80	3	727 798 513		753 798 613					
	110	100	4	727 798 514		753 798 614					
	140	125	5	727 798 516		753 798 616					
	160	150	6	727 798 517		753 798 617					
	225	200	8	727 798 520		753 798 620					
	280	250	10	727 798 572		753 798 672					
	315	300	12	727 798 573		753 798 673					

	d	DN	Inch	PP		PE						
				Code		Code						
PP/PE Flange Adapter metric SDR 17,6	40	32	1¼	--		--						
	50	40	1½	727 798 535		753 798 535						
	63	50	2	727 798 536		753 798 536						
	75	65	2½	727 798 412		753 798 512						
	90	80	3	727 798 413		753 798 513						
				727 798 414		753 798 514						
	110	100	4									
	140	125	5	727 798 541		753 798 541						
	160	150	6	727 798 542		753 798 542						
	225	200	8	727 798 545		753 798 545						
	280	250	10	727 798 547		753 798 547						
	315	300	12	727 798 548		753 798 548						

	d	DN	Inch	for Flange Adapter						
				PP-V black	PP with steel ring					
Backing flange metric for butt fusion systems Connecting dimension DIN 2501 PN 10	40	32	1¼	727 700 409	727 700 209					
	50	40	1½	727 700 410	727 700 210					
	63	50	2	727 700 411	727 700 211					
	75	65	2½	727 700 412	727 700 212					
	90	80	3	727 700 513	727 700 313					
	110	100	4	727 700 514	727 700 314					
	140	125	5	727 700 516	727 700 316					
	160	150	6	727 700 517	727 700 317					
	225	200	8	727 700 520	727 700 320					
	280	250	10	727 700 522	727 700 322					
	315	300	12	727 700 523	727 700 323					

Strainers 305

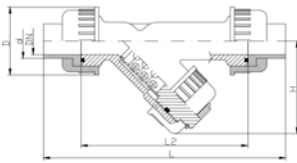


PROGEF Standard Line strainer type 305 With fusion sockets metric

Model:

- Material: PP-H
- For easy installation and removal
- Protects valves, pumps, etc. from becoming soiled
- Screen perforation 0.5 mm
- Overall length according to EN 558
- Easy dismantling for cleaning the screens

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	H [mm]	z [mm]
20	15	10	35	167 305 000	167 305 049	0.245	52	168	130	75	140
25	20	10	65	167 305 050	167 305 099	0.295	62	192	150	80	160
32	25	10	90	167 305 100	167 305 149	0.360	68	206	160	90	170
40	32	10	155	167 305 150	167 305 199	0.660	85	230	180	110	190
50	40	10	225	167 305 200	167 305 249	0.810	85	256	200	125	210
63	50	10	370	167 305 250	167 305 299	1.330	102	294	230	150	240



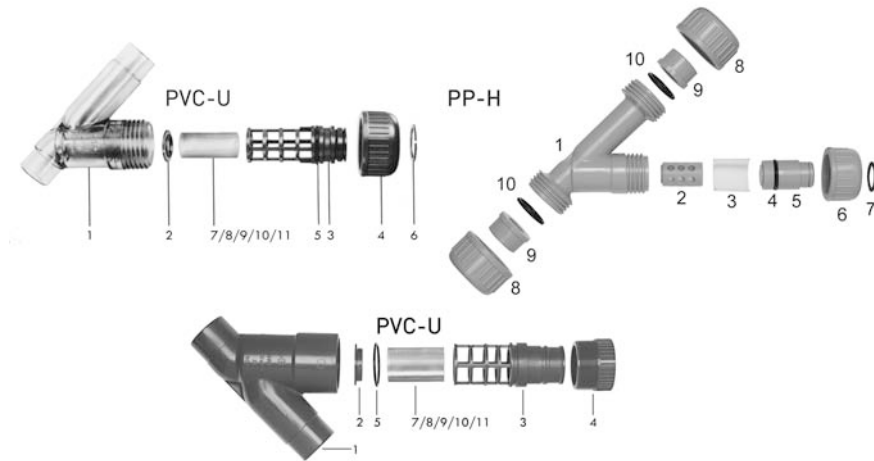
PROGEF Standard Line strainer type 305 With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- For easy installation and removal
- Protects valves, pumps, etc. from becoming soiled
- Screen perforation 0.5 mm
- Overall length according to EN 558
- Easy dismantling for cleaning the screens

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	H [mm]	e [mm]
20	15	10	35	167 305 300	167 305 349	0.245	52	238	130	75	1.9
25	20	10	65	167 305 350	167 305 399	0.295	62	264	150	80	2.3
32	25	10	90	167 305 400	167 305 449	0.360	68	280	160	90	3.0
40	32	10	155	167 305 450	167 305 499	0.660	85	306	180	110	3.7
50	40	10	225	167 305 500	167 305 549	0.810	85	332	200	125	4.6
63	50	10	370	167 305 550	167 305 599	1.330	102	368	230	150	5.8

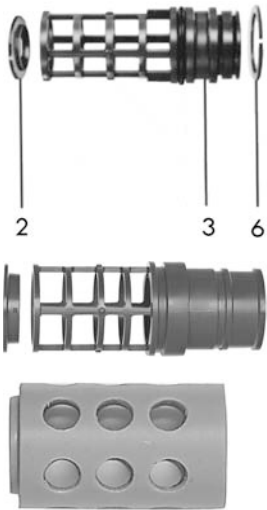
Spare parts line strainer type 305/306



Screen set

Model:

- Screen set PVC-U DN10-DN50 consisting of: screen (3), screen support ring (2) and circlip (6), PVC-U DN65-DN80: screen (3) and screen support ring (2). PP-H DN15-DN50: screen basket compl. without screen (2) and circlip (7)



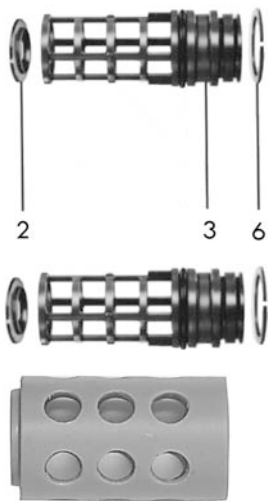
d [mm]	Inch	DN [mm]	PVC-U Code	PP-H Code	kg	
20	½	15	161 483 126	167 305 001	0.110	
25	¾	20	161 483 127	167 305 002	0.070	
32	1	25	161 483 128	167 305 003	0.255	
40	1 ¼	32	161 483 129	167 305 004	0.135	
50	1 ½	40	161 483 130	167 305 005	0.140	
63	2	50	161 483 131	167 305 006	0.140	
75	2 ½	65	161 483 132		0.490	
90	3	80	161 483 133		0.390	

Body (1)



d [mm]	Inch	DN [mm]	PVC-U transpar- ent Code	PVC-U transpar- ent ASTM Code	PVC-C Code	ABS Code	
20	½	15	192 300 301	192 480 001	163 481 075	169 480 600	
25	¾	20	192 300 351	192 480 002	163 481 076	169 480 601	
32	1	25	192 300 401	192 301 401	163 481 077	169 480 602	
40	1 ¼	32	192 300 451	192 301 451	163 481 078	169 480 603	
50	1 ½	40	192 300 501	192 301 501	163 481 079	169 480 604	
63	2	50	192 300 551	192 301 551	163 481 080	169 480 605	
75	2 ½	65	192 300 601				
90	3	80	192 300 651				

d [mm]	Inch	DN [mm]	PP-H Code	kg	
20	½	15	167 305 010	0.046	
25	¾	20	167 305 011	0.079	
32	1	25	167 305 012	0.125	
40	1 ¼	32	167 305 013	0.177	
50	1 ½	40	167 305 014	0.303	
63	2	50	167 305 015	0.514	
75	2 ½	65		1.305	
90	3	80		1.920	



Screen cage

Model:

- Screen cage in PVC-U (3) and PP-H (2)

d [mm]	Inch	DN [mm]	PVC-U Code	PVC-C Code	PP-H Code	kg
20	½	15	161 305 303	163 481 102	167 305 020	0.005
25	¾	20	161 305 353	163 481 103	167 305 021	0.007
32	1	25	161 305 403	163 481 104	167 305 022	0.003
40	1 ¼	32	161 305 453	163 481 105	167 305 023	0.004
50	1 ½	40	161 305 503	163 481 106	167 305 024	0.005
63	2	50	161 305 553	163 481 107	167 305 025	0.010
75	2 ½	65	161 305 603			0.309
90	3	80	161 305 653			0.372



Screen cage bracket

Model:

- Only for the version in PP-H available

d [mm]	Inch	DN [mm]	PP-H Code	kg
20	½	15	167 305 040	0.018
25	¾	20	167 305 041	0.024
32	1	25	167 305 042	0.035
40	1 ¼	32	167 305 043	0.055
50	1 ½	40	167 305 044	0.088
63	2	50	167 305 045	0.132



Valve end metric

Model:

- Only for the version in PP-H available



d [mm]	Inch	DN [mm]	fusion socket PP-H Code	butt fusion spigot IR PP-H SDR11 Code	kg
20	½	15	727 600 106	727 608 506	0.010
25	¾	20	727 600 107	727 608 507	0.017
32	1	25	727 600 108	727 608 508	0.024
40	1 ¼	32	727 600 109	727 608 509	0.041
50	1 ½	40	727 600 110	727 608 510	0.054
63	2	50	727 600 111	727 608 511	0.092



Valve nut

Model:

- Union nut PVC-U DN10-DN50 (4), PP-H (6, 8)

d [mm]	Inch	DN [mm]	Cap nut PVC-U Code	Cap nut PVC-C Code	Cap nut ABS Code	Cap nut PP-H Code
20	½	15	161 300 308	163 481 084	169 480 609	167 305 060
25	¾	20	161 300 358	163 481 085	169 480 610	167 305 061
32	1	25	161 300 408	163 481 086	169 480 611	167 305 062
40	1 ¼	32	161 300 458	163 481 087	169 480 612	167 305 063
50	1 ½	40	161 300 508	163 481 088	169 480 613	167 305 064
63	2	50	161 300 558	163 481 089	169 480 614	167 305 065

d [mm]	Inch	DN [mm]	Connecting Nut PP-H Code	kg
20	½	15	167 305 070	0.000
25	¾	20	167 305 071	0.000
32	1	25	167 305 072	0.000

table continued next page

d [mm]	Inch	DN [mm]	Connecting Nut PP-H Code	kg
40	1 ¼	32	167 305 073	0.000
50	1 ½	40	167 305 074	0.000
63	2	50	167 305 075	0.000



Body seal

Model:

- Body seal vor PVC-U (5), PP-H (10)

d [mm]	Inch	DN [mm]	EPDM Code	FPM Code	kg
20	½	15	748 410 006	749 410 006	0.002
25	¾	20	748 410 001	749 410 001	0.002
32	1	25	748 410 007	749 410 007	0.002
40	1 ¼	32	748 410 002	749 410 002	0.003
50	1 ½	40	748 410 003	749 410 003	0.007
63	2	50	748 410 012	749 410 012	0.008
75	2 ½	65	748 410 013	749 410 013	0.011
90	3	80	748 410 014	749 410 014	0.012



Screen perforation

Model:

- For PVC-U (7), PP-H (3)
- Stainless Steel A4 Quality (AISI 316)

d [mm]	Inch	DN [mm]	PVC-U 0.5mm Code	PVC-U 0.8mm Code	PVC-U 1.4mm Code	PVC-U 2.2mm Code
20	½	15	161 305 339	161 305 338	161 305 337	161 305 336
25	¾	20	161 305 389	161 305 388	161 305 387	161 305 386
32	1	25	161 305 439	161 305 438	161 305 437	161 305 436
40	1 ¼	32	161 305 489	161 305 488	161 305 487	161 305 486
50	1 ½	40	161 305 539	161 305 538	161 305 537	161 305 536
63	2	50	161 305 589	161 305 588	161 305 587	161 305 586
75	2 ½	65	161 305 639	161 305 638	161 305 637	161 305 636
90	3	80	161 305 689	161 305 688	161 305 687	161 305 686

d [mm]	Inch	DN [mm]	PP-H Code	stainless steel 0.5mm Code	kg
20	½	15	167 305 030	161 486 100	0.002
25	¾	20	167 305 031	161 486 101	0.004
32	1	25	167 305 032	161 486 102	0.006
40	1 ¼	32	167 305 033	161 486 103	0.009
50	1 ½	40	167 305 034	161 486 104	0.014
63	2	50	167 305 035	161 486 105	0.022
75	2 ½	65		161 486 106	0.026
90	3	80		161 486 107	0.036



Plug (4)

Model:

- Only for PVC-U DN65-DN80

d [mm]	Inch	DN [mm]	PVC-U Code	kg
75	2 ½	65	161 305 604	0.200
90	3	80	161 305 654	0.265



Circlip (7)

Model:

- Only for the version in PP-H available

d [mm]	Inch	DN [mm]	PP-H Code	kg	
20	¾	15	161 482 017	0.003	
25	¾	20	161 482 018	0.003	
32	1	25	161 482 019	0.005	
40	1 ¼	32	161 482 020	0.003	
50	1 ½	40	161 482 021	0.003	
63	2	50	161 482 022	0.004	

Copiable

Configurator GF ball valve type 546 PROGEF Standard

Ball Valve

- A01 Ball Valve 546
- A02 Linear Ball Valve

Material

- B05 PP-H

Dimension

- C05 d 16 DN 10 3/8"
- C06 d 20 DN 15 1/2"
- C07 d 25 DN 20 3/4"
- C08 d 32 DN 25 1"
- C09 d 40 DN 32 1 1/4"
- C10 d 50 DN 40 1 1/2"
- C11 d 63 DN 50 2"
- C12 DN 65 2 1/2"
- C13 DN 80 3"
- C14 DN 100 4"
- C15 DN 150 6"

Version

- D01 Standard, PTFE ball seal
- D02 oilfree, PTFE ball seal (only with specific connecting parts)
- D03 silicon-free, PTFE ball seal (only with specific connecting parts)
- D04 silicon-free, PVDF ball seal for metric (only with specific connecting parts)

Seals

- E01 EPDM seals
- E02 FPM seals
- E03 FFPM/KALREZ® seals

Threaded inserts

- F01 without threaded inserts
- F02 with threaded inserts

Connecting parts

- G30 PP-H Fusion socket metric
- G32 PP-H Socket fusion spigot metric
- G33 PP-H Threaded socket Rp reinforced
- G34 PP-H Threaded socket NPT reinforced
- G35 PP-H Butt fusion spigot SDR 11 metric IR-PLUS®
- G36 PP-H Butt fusion spigot SDR 17.6 metric with this valve end the maximum nominal pressure is reduced to PN 6
- G37 PP-H Butt fusion spigot long SDR11 metric
- G43 PE-100 Butt fusion spigot long SDR11 metric
- G44 PE-100 Butt fusion spigot long SDR17.6 metric
- G63 Fixed flange PP-H serrated metric
- G72 Backing flange PP-steel metric
- G73 Backing flange PP-steel inch ANSI
- G77 Backing flange PP JIS with connecting parts
- G78 Backing flange PP-GF JIS
- G83 PP-H Valve end blank
- G40 PE-100 Fusion socket metric
- G41 PE-100 Butt fusion spigot SDR11 metric
- G42 PE-100 Butt fusion spigot SDR17.6 metric
- G43 PE-100 Butt fusion spigot long SDR11 metric
- G11 PVC-C Cement socket metric
- G13 PVC-C Cement socket inch ASTM
- G14 PVC-C Cement spigot metric
- G15 PVC-C Threaded socket Rp
- G16 PVC-C Threaded socket Rp reinforced
- G17 PVC-C Threaded socket NPT

Multi-functional module

- I01 No multi-functional module
- I02 Empty module
- I03 Module with 2 end switches Ag, Ni
- I04 Module with 2 end switches Au
- I05 Module with 2 inductive switches Namur
- I06 Module with 2 inductive switches PNP
- I07 Module with 2 inductive switches NPN

Lever

- K01 Standard lever red
- K02 Standard lever black
- K11 Multi-functional lever red

Mounting plate

- L01 without mounting plate
- L02 with mounting plate

A01	B05	C	D	E	F	G	G	I	K	L
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You will find a large selection of different versions in our range of products. New system elements also provide you with new opportunities for use. In order for us to supply exactly the ball valve you need for you application, we have created a selection menu for you. (Der maximal zulässige Betriebsdruck des Kugelhahns ist PN 10).

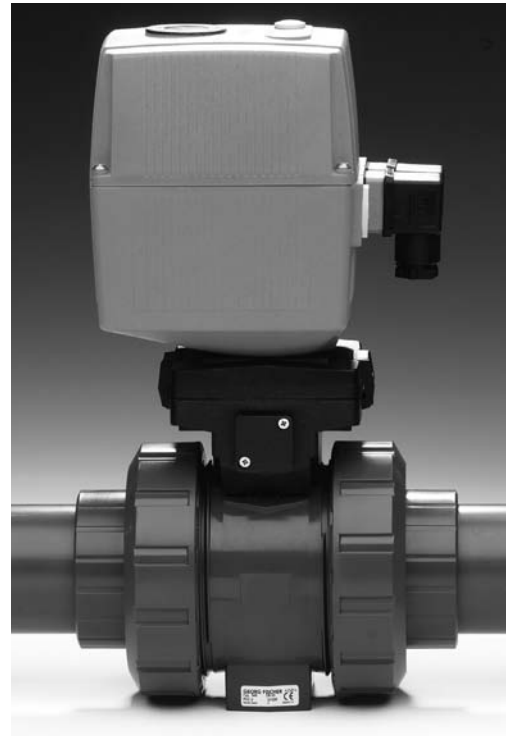
We supply what you put together.

Copiable GF ball valve type 546 with electric Actuator

It's so easy to actuate the type 546:

With the configurator, you have a choice of new electric actuators, the EA11 for standard applications and the EA21 with modular design and accessories, for practically and type of operation.

We supply what you put together.



Electric Actuator EA11

- T01 EA11 24 V
- T02 EA11 100-230 V

Accessories EA11

- U01 No accessories
- U02 2 limit switches Ag, Ni
- U03 Heating element
- U04 Fail-safe return
- U05 2 limit switches Ag, Ni normally open

Electric Actuator EA21/31

- T03 EA21/31 24 V
- T04 EA21/31 100-230 V

Accessories EA21

- W01 No accessories
- W02 Heating element
- W03 Cycle time module
- W04 Cycle time monitoring
- W05 Cycles monitoring
- W06 Motor current monitoring
- W07 2 limit switches Ag, Ni
- W08 2 limit switches Gold
- W09 2 limit switches NPN
- W10 2 limit switches PNP
- W 1 Pøitioner
- W12 Electric position indicator
- W14 Fail-safe return unit
- W15 Switch intermediate position
- W27 2 limit switches Ag, Ni normally open with connector
- W 1 Pøitioner PE25 with galv. separation

T	U	T	W	W	W	W	W	W

Ball Valves Electric

PROGEF Standard Ball valve type 107 100-230V With manual emergency override With fusion sockets metric



DN10/15 - 50

Model:

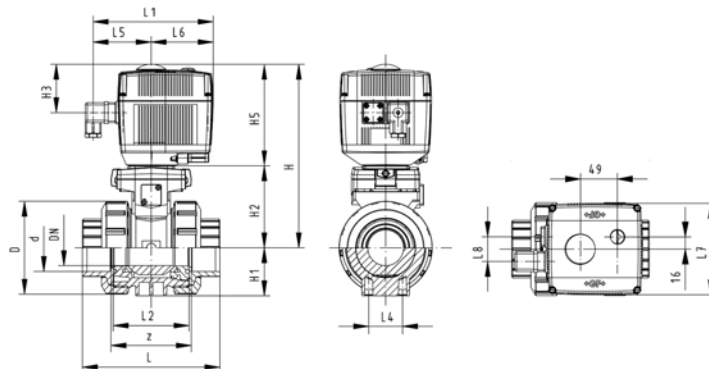
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 502	199 107 512	2.100
20	15	10	185	199 107 503	199 107 513	2.100
25	20	10	350	199 107 504	199 107 514	2.200
32	25	10	700	199 107 505	199 107 515	2.300
40	32	10	1000	199 107 506	199 107 516	2.600
50	40	10	1600	199 107 507	199 107 517	3.000
63	50	10	3100	199 107 508	199 107 518	3.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	93	161	56	25	77	83	122	33	67
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	66
25	58	209	30	73	64	137	108	161	65	25	77	83	122	33	77
32	68	209	36	73	64	137	118	161	71	25	77	83	122	33	83
40	84	220	44	84	64	137	137	161	85	45	77	83	122	33	99
50	97	220	51	84	64	137	147	161	89	45	77	83	122	33	105
63	124	243	64	106	64	137	168	161	101	45	77	83	122	33	117





PROGEF Standard Ball valve type 107 100-230V With manual emergency override With socket fusion spigots metric

Model:

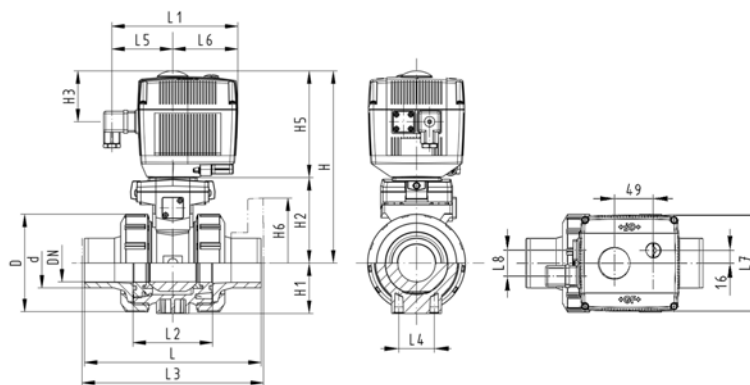
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 522	199 107 532	2.100
20	15	10	185	199 107 523	199 107 533	2.100
25	20	10	350	199 107 524	199 107 534	2.200
32	25	10	700	199 107 525	199 107 535	2.300
40	32	10	1000	199 107 526	199 107 536	2.600
50	40	10	1600	199 107 527	199 107 537	3.000
63	50	10	3100	199 107 528	199 107 538	3.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	110	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	120	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	139	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	170	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	190	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33





PROGEF Standard
Ball valve type 107 100-230V
With manual emergency override
With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

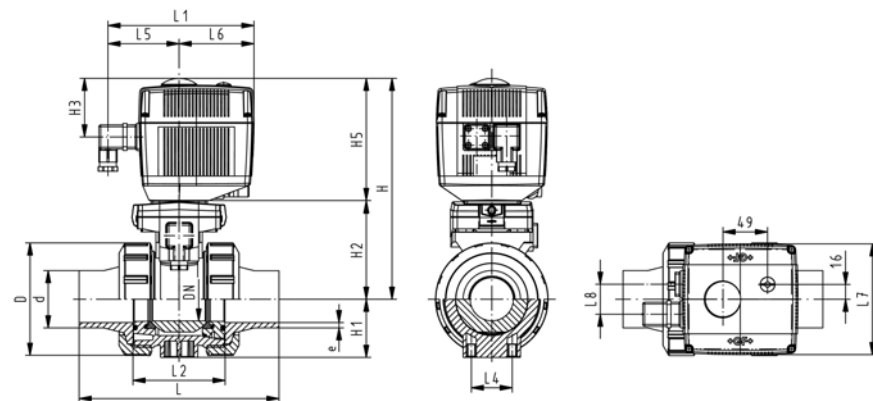
Option:

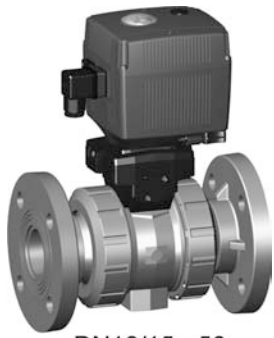
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	800 046 107	800 046 110	0.000
25	20	10	350	800 046 108	800 046 112	0.000
32	25	10	700	800 027 956	800 046 113	0.000
40	32	10	1000	800 046 109	800 046 114	0.000
50	40	10	1600	800 021 699	800 046 115	0.000
63	50	10	3100	800 027 113	800 046 116	0.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	143	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	171	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	191	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8





DN10/15 - 50

PROGEF Standard Ball valve type 107 100-230V With manual emergency override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

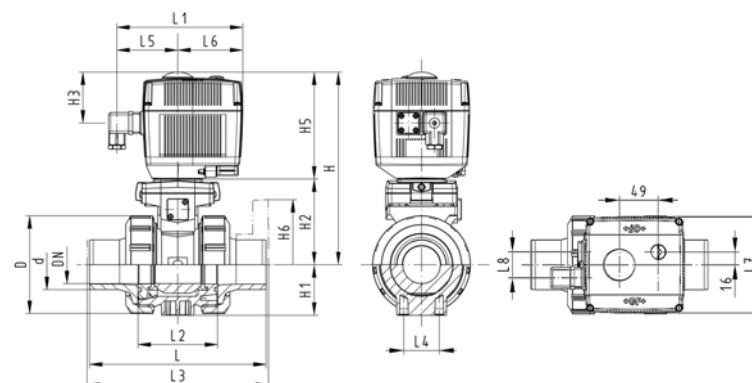
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 107 583	199 107 593	2.300
25	20	¾	10	350	199 107 584	199 107 594	2.500
32	25	1	10	700	199 107 585	199 107 595	2.700
40	32	1 ¼	10	1000	199 107 586	199 107 596	3.200
50	40	1 ½	10	1600	199 107 587	199 107 597	3.700
63	50	2	10	3100	199 107 588	199 107 598	4.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	200	27	64	64	137	48	120	161	56	130	25	77	83	122
25	58	209	30	73	64	137	53	140	161	65	150	25	77	83	122
32	68	209	36	73	64	137	58	150	161	71	160	25	77	83	122
40	84	220	44	84	64	137	70	170	161	85	180	45	77	83	122
50	97	220	51	84	64	137	75	190	161	89	200	45	77	83	122
63	124	243	64	106	64	137	165	220	161	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33





DN10/15 - 50

PROGEF Standard Ball valve type 107 24V With manual emergency override With fusion sockets metric

Model:

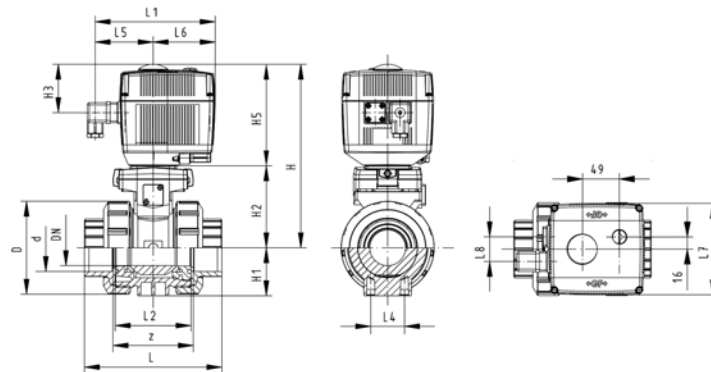
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 542	199 107 552	2.100
20	15	10	185	199 107 543	199 107 553	2.100
25	20	10	350	199 107 544	199 107 554	2.200
32	25	10	700	199 107 545	199 107 555	2.300
40	32	10	1000	199 107 546	199 107 556	2.600
50	40	10	1600	199 107 547	199 107 557	3.000
63	50	10	3100	199 107 548	199 107 558	3.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]	z [mm]
16	50	200	27	64	64	137	93	161	56	25	77	83	122	33	67
20	50	200	27	64	64	137	95	161	56	25	77	83	122	33	66
25	58	209	30	73	64	137	108	161	65	25	77	83	122	33	77
32	68	209	36	73	64	137	118	161	71	25	77	83	122	33	83
40	84	220	44	84	64	137	137	161	85	45	77	83	122	33	99
50	97	220	51	84	64	137	147	161	89	45	77	83	122	33	105
63	124	243	64	106	64	137	168	161	101	45	77	83	122	33	117





PROGEF Standard Ball valve type 107 24V With manual emergency override With socket fusion spigots metric

Model:

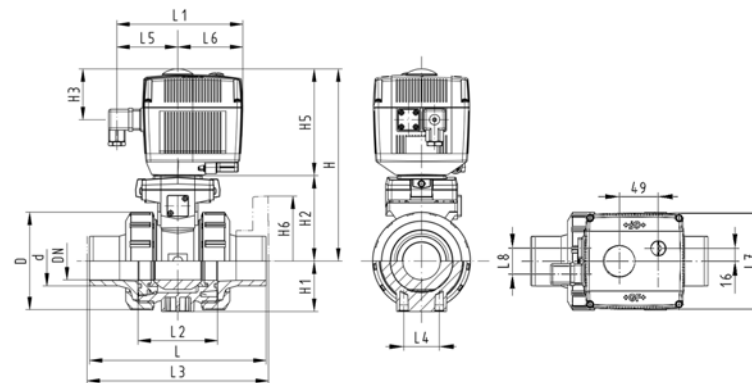
- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 107 562	199 107 572	2.100
20	15	10	185	199 107 563	199 107 573	2.100
25	20	10	350	199 107 564	199 107 574	2.200
32	25	10	700	199 107 565	199 107 575	2.300
40	32	10	1000	199 107 566	199 107 576	2.600
50	40	10	1600	199 107 567	199 107 577	3.000
63	50	10	3100	199 107 568	199 107 578	3.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
16	50	200	27	64	64	137	110	161	56	130	25	77	83	122	33
20	50	200	27	64	64	137	120	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	139	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	156	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	170	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	190	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33





PROGEF Standard
Ball valve type 107 24V
With manual emergency override
With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

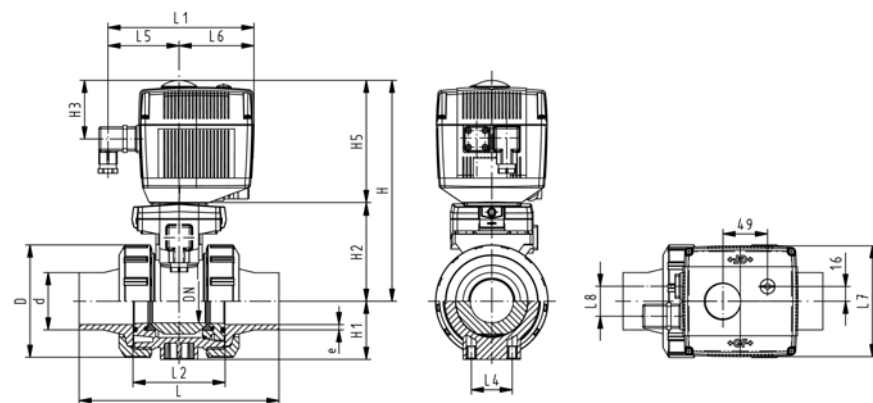
Option:

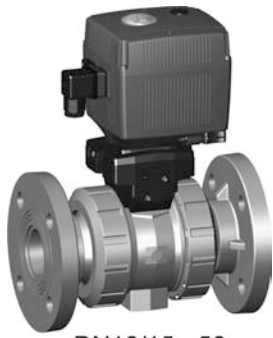
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	800 015 073	800 046 119	0.000
25	20	10	350	800 046 117	800 046 120	0.000
32	25	10	700	800 046 118	800 046 121	0.000
40	32	10	1000	800 021 702	800 046 122	0.000
50	40	10	1600	800 021 700	800 046 123	0.000
63	50	10	3100	800 021 701	800 046 124	0.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	L8 [mm]
20	50	200	27	64	64	137	130	161	56	130	25	77	83	122	33
25	58	209	30	73	64	137	143	161	65	150	25	77	83	122	33
32	68	209	36	73	64	137	150	161	71	160	25	77	83	122	33
40	84	220	44	84	64	137	171	161	85	180	45	77	83	122	33
50	97	220	51	84	64	137	191	161	89	200	45	77	83	122	33
63	124	243	64	106	64	137	220	161	101	230	45	77	83	122	33

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8





DN10/15 - 50

PROGEF Standard Ball valve type 107 24V With manual emergency override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- Built on with electric actuator EA11
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

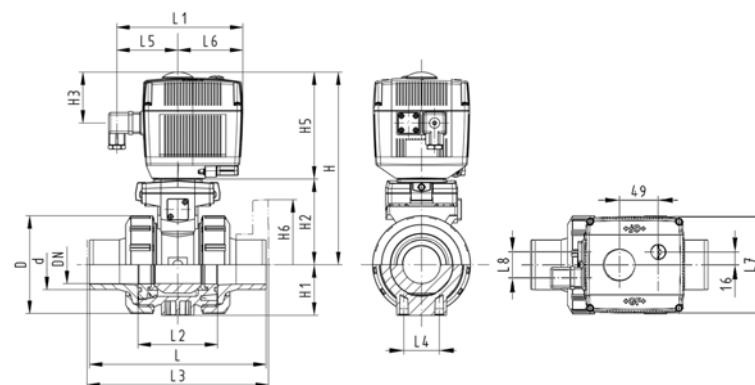
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 107 783	199 107 793	2.300
25	20	¾	10	350	199 107 784	199 107 794	2.500
32	25	1	10	700	199 107 785	199 107 795	2.700
40	32	1 ¼	10	1000	199 107 786	199 107 796	3.200
50	40	1 ½	10	1600	199 107 787	199 107 797	3.700
63	50	2	10	3100	199 107 788	199 107 798	4.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	200	27	64	64	137	48	120	161	56	130	25	77	83	122
25	58	209	30	73	64	137	53	140	161	65	150	25	77	83	122
32	68	209	36	73	64	137	58	150	161	71	160	25	77	83	122
40	84	220	44	84	64	137	70	170	161	85	180	45	77	83	122
50	97	220	51	84	64	137	75	190	161	89	200	45	77	83	122
63	124	243	64	106	64	137	165	220	161	101	230	45	77	83	122

d [mm]	L8 [mm]
20	33
25	33
32	33
40	33
50	33
63	33





DN10/15 - 50



PROGEF Standard Ball valve type 131 100-230V With manual emergency override With fusion sockets metric

Model:

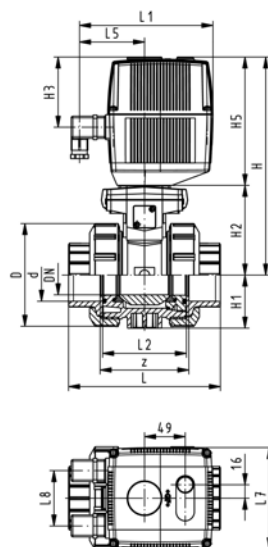
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

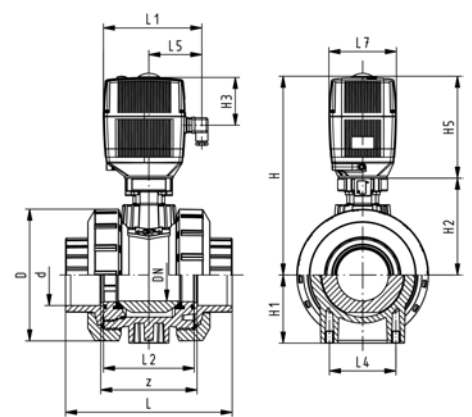
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 131 002	199 131 012	2.100
20	15	10	185	199 131 003	199 131 013	2.100
25	20	10	350	199 131 004	199 131 014	2.200
32	25	10	700	199 131 005	199 131 015	2.300
40	32	10	1000	199 131 006	199 131 016	2.600
50	40	10	1600	199 131 007	199 131 017	3.000
63	50	10	3100	199 131 008	199 131 018	3.800
75	65	10	5000	199 131 009	199 131 019	6.200
90	80	10	7000	199 131 010	199 131 020	8.000
110	100	10	11000	199 131 011	199 131 021	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	93	180	56	25	97	122	67
20	50	231	27	64	94	167	95	180	56	25	97	122	66
25	58	240	30	73	94	167	108	180	65	25	97	122	77
32	68	240	36	73	94	167	118	180	71	25	97	122	83
40	84	251	44	84	94	167	137	180	85	45	97	122	99
50	97	251	51	84	94	167	147	180	89	45	97	122	105
63	124	273	64	106	94	167	168	180	101	45	97	122	117
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100



DN10/15 - 50



PROGEF Standard Ball valve type 131 100-230V With manual emergency override With socket fusion spigots metric

Model:

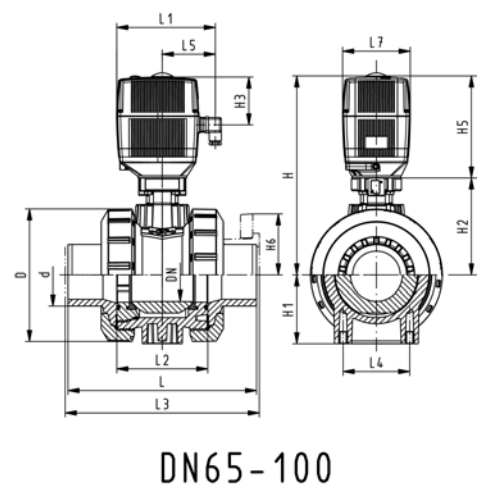
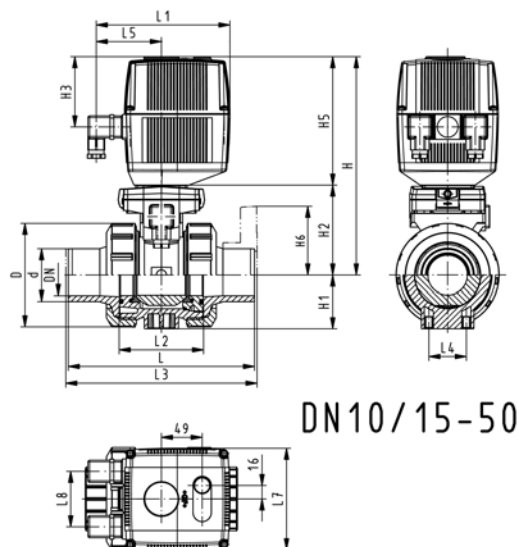
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 131 022	199 131 032	2.100
20	15	10	185	199 131 023	199 131 033	2.100
25	20	10	350	199 131 024	199 131 034	2.200
32	25	10	700	199 131 025	199 131 035	2.300
40	32	10	1000	199 131 026	199 131 036	2.600
50	40	10	1600	199 131 027	199 131 037	3.000
63	50	10	3100	199 131 028	199 131 038	3.800
75	65	10	5000	199 131 029	199 131 039	6.200
90	80	10	7000	199 131 030	199 131 040	8.000
110	100	10	11000	199 131 031	199 131 041	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	110	180	56	130	25	97	122
20	50	231	27	64	94	167	120	180	56	130	25	97	122
25	58	240	30	73	94	167	139	180	65	150	25	97	122
32	68	240	36	73	94	167	150	180	71	160	25	97	122
40	84	251	44	84	94	167	170	180	85	180	45	97	122
50	97	251	51	84	94	167	190	180	89	200	45	97	122
63	124	273	64	106	94	167	220	180	101	230	45	97	122
75	166	346	85	156	94	190	280	180	136	290	70	98	122
90	200	358	105	168	94	190	296	180	141	310	70	98	122
110	238	365	123	175	94	190	336	180	164	350	120	98	122





PROGEF Standard Ball valve type 131 100-230V With manual emergency override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

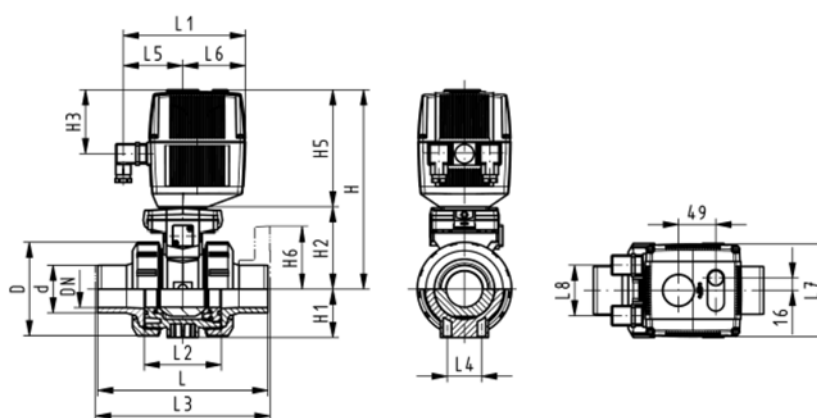
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 131 083	199 131 093	2.300
25	20	¾	10	350	199 131 084	199 131 094	2.500
32	25	1	10	700	199 131 085	199 131 095	2.700
40	32	1 ¼	10	1000	199 131 086	199 131 096	3.200
50	40	1 ½	10	1600	199 131 087	199 131 097	3.700
63	50	2	10	3100	199 131 088	199 131 098	4.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	120	180	56	130	25	97	83	122
25	58	240	30	73	94	167	53	140	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	150	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	170	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	190	180	89	200	45	97	83	122
63	124	273	64	106	94	167	165	220	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66





PROGEF Standard

Ball valve type 131 100-230V

With manual emergency override

With backing flanges PP-st metric

Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

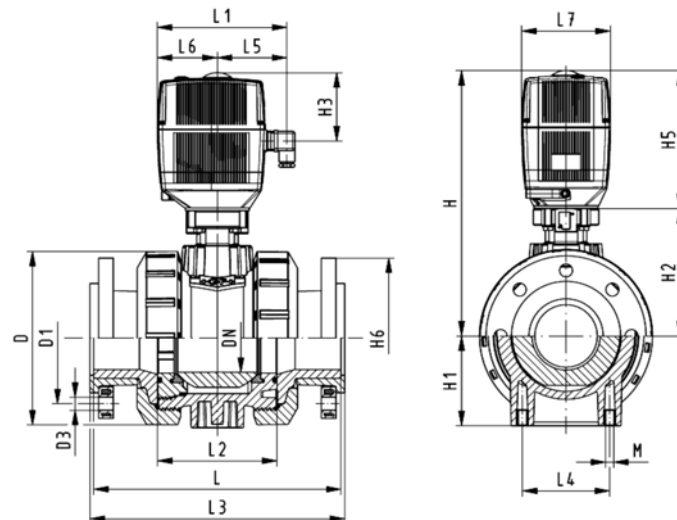
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 131 129	199 131 139	10.500
90	80	3	10	7000	199 131 130	199 131 140	13.200
110	100	4	10	11000	199 131 131	199 131 141	18.400

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



PROGEF Standard

Ball valve type 131 100-230V

With manual emergency override

With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



Model:

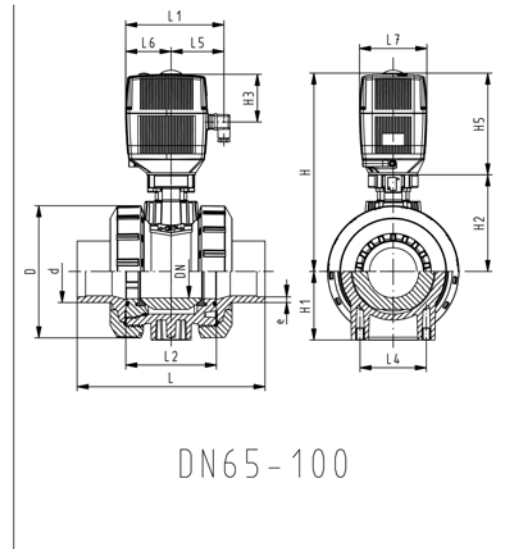
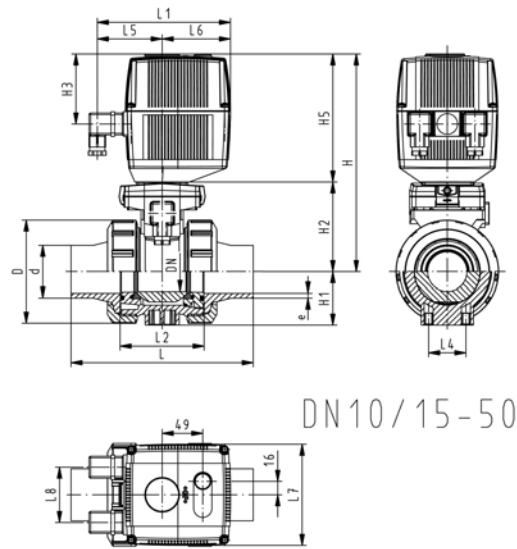
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 131 329	199 131 339	6.200
90	80	10	7000	199 131 330	199 131 340	8.000
110	100	10	11000	199 131 331	199 131 341	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
75	166	346	85	156	94	190	266	180	136	290	70	98	122	8.2
90	200	358	105	168	94	190	264	180	141	310	70	98	122	9.9
110	238	365	123	175	94	190	301	180	164	350	120	98	122	12.0





PROGEF Standard
Ball valve type 131 100-230V
With manual emergency override
With butt fusion spigots SDR17.6 metric

Model:

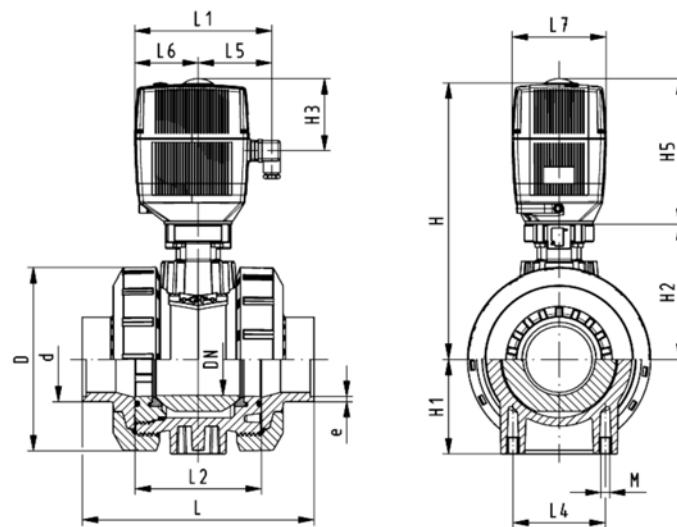
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 131 729	199 131 739	6.200
90	80	10	7000	199 131 730	199 131 740	8.000
110	100	10	11000	199 131 731	199 131 741	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	e [mm]
75	166	346	85	156	94	190	266	180	136	290	70	98	83	122	4.6
90	200	358	105	168	94	190	264	180	141	310	70	98	83	122	5.5
110	238	365	123	175	94	190	301	180	164	350	120	98	83	122	6.7





DN10/15 - 50



PROGEF Standard Ball valve type 131 24V With manual emergency override With fusion sockets metric

Model:

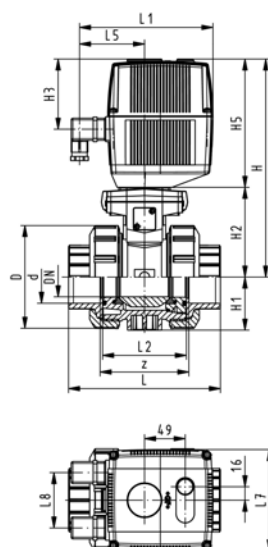
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

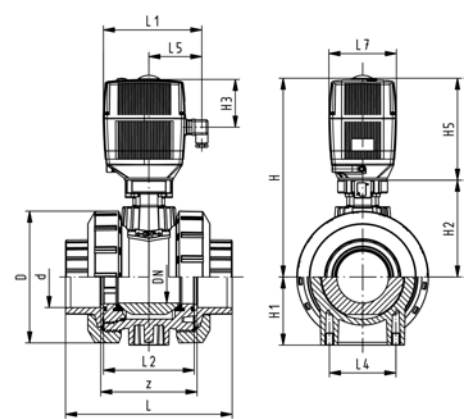
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 131 042	199 131 052	2.100
20	15	10	185	199 131 043	199 131 053	2.100
25	20	10	350	199 131 044	199 131 054	2.200
32	25	10	700	199 131 045	199 131 055	2.300
40	32	10	1000	199 131 046	199 131 056	2.600
50	40	10	1600	199 131 047	199 131 057	3.000
63	50	10	3100	199 131 048	199 131 058	3.800
75	65	10	5000	199 131 049	199 131 059	6.200
90	80	10	7000	199 131 050	199 131 060	8.000
110	100	10	11000	199 131 051	199 131 061	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	z [mm]
16	50	231	27	64	94	167	93	180	56	25	97	122	67
20	50	231	27	64	94	167	95	180	56	25	97	122	66
25	58	240	30	73	94	167	108	180	65	25	97	122	77
32	68	240	36	73	94	167	118	180	71	25	97	122	83
40	84	251	44	84	94	167	137	180	85	45	97	122	99
50	97	251	51	84	94	167	147	180	89	45	97	122	105
63	124	273	64	106	94	167	168	180	101	45	97	122	117
75	166	346	85	156	94	190	233	180	136	70	98	122	167
90	200	358	105	168	94	190	254	180	141	70	98	122	180
110	238	365	123	175	94	190	301	180	164	120	98	122	215



DN10/15-50



DN65-100



DN10/15 - 50



PROGEF Standard Ball valve type 131 24V With manual emergency override With socket fusion spigots metric

Model:

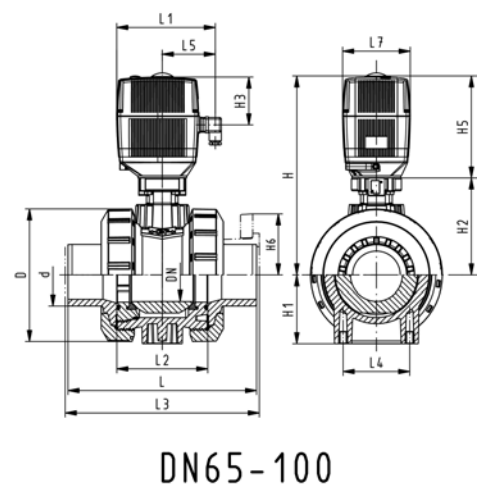
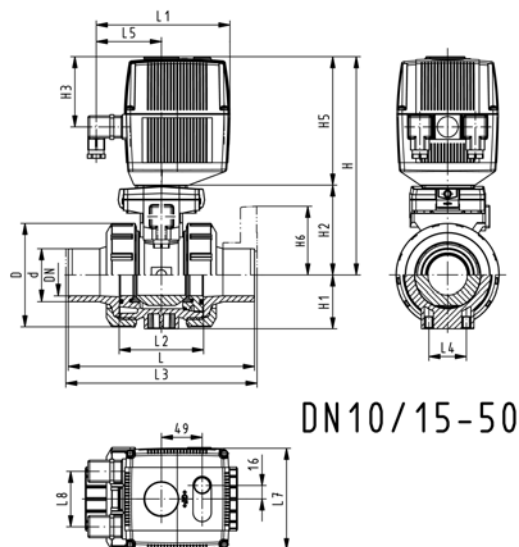
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 131 062	199 131 072	2.100
20	15	10	185	199 131 063	199 131 073	2.100
25	20	10	350	199 131 064	199 131 074	2.200
32	25	10	700	199 131 065	199 131 075	2.300
40	32	10	1000	199 131 066	199 131 076	2.600
50	40	10	1600	199 131 067	199 131 077	3.000
63	50	10	3100	199 131 068	199 131 078	3.800
75	65	10	5000	199 131 069	199 131 079	6.200
90	80	10	7000	199 131 070	199 131 080	8.000
110	100	10	11000	199 131 071	199 131 081	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]
16	50	231	27	64	94	167	110	180	56	130	25	97	122
20	50	231	27	64	94	167	120	180	56	130	25	97	122
25	58	240	30	73	94	167	139	180	65	150	25	97	122
32	68	240	36	73	94	167	150	180	71	160	25	97	122
40	84	251	44	84	94	167	170	180	85	180	45	97	122
50	97	251	51	84	94	167	190	180	89	200	45	97	122
63	124	273	64	106	94	167	220	180	101	230	45	97	122
75	166	346	85	156	94	190	280	180	136	290	70	98	122
90	200	358	105	168	94	190	296	180	141	310	70	98	122
110	238	365	123	175	94	190	336	180	164	350	120	98	122





DN10/15 - 50

PROGEF Standard Ball valve type 131 24V With manual emergency override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Built on with electric actuator EA21
- Control time 5 s/90°<
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

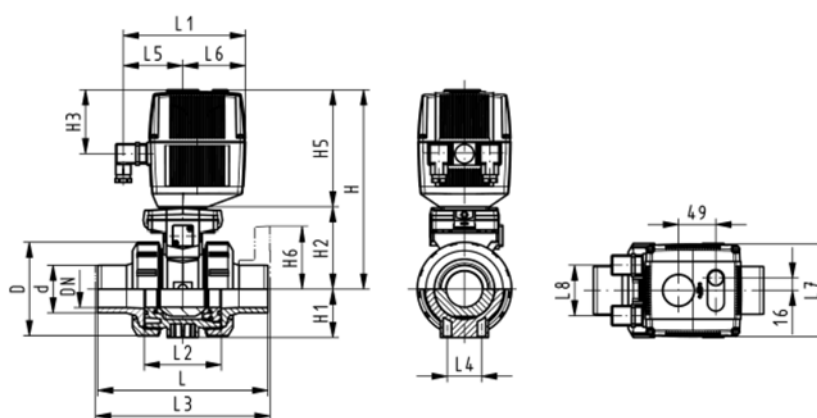
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 131 103	199 131 113	2.300
25	20	¾	10	350	199 131 104	199 131 114	2.500
32	25	1	10	700	199 131 105	199 131 115	2.700
40	32	1 ¼	10	1000	199 131 106	199 131 116	3.200
50	40	1 ½	10	1600	199 131 107	199 131 117	3.700
63	50	2	10	3100	199 131 108	199 131 118	4.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	27	64	94	167	48	120	180	56	130	25	97	83	122
25	58	240	30	73	94	167	53	140	180	65	150	25	97	83	122
32	68	240	36	73	94	167	58	150	180	71	160	25	97	83	122
40	84	251	44	84	94	167	70	170	180	85	180	45	97	83	122
50	97	251	51	84	94	167	75	190	180	89	200	45	97	83	122
63	124	273	64	106	94	167	165	220	180	101	230	45	97	83	122

d [mm]	L8 [mm]
20	66
25	66
32	66
40	66
50	66
63	66





PROGEF Standard

Ball valve type 131 24V

With manual emergency override

With backing flanges PP-st metric

Model:

- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

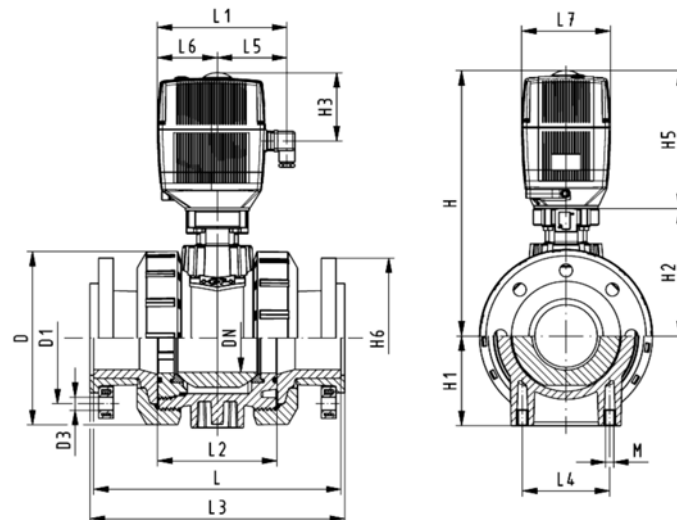
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 131 149	199 131 159	10.500
90	80	3	10	7000	199 131 150	199 131 160	13.200
110	100	4	10	11000	199 131 151	199 131 161	18.400

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66



PROGEF Standard Ball valve type 131 24V With manual emergency override With butt fusion spigots IR-Plus SDR11 metric



DN10/15 - 50



Model:

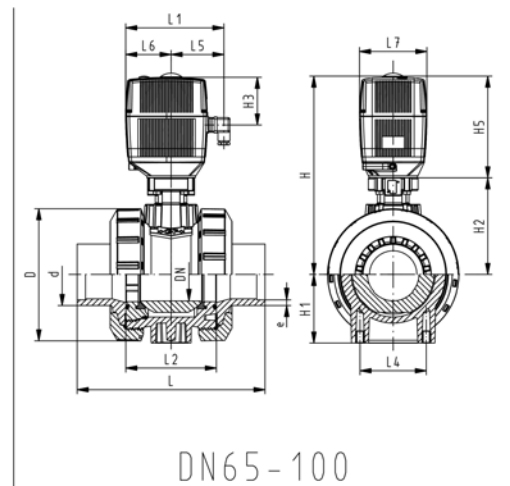
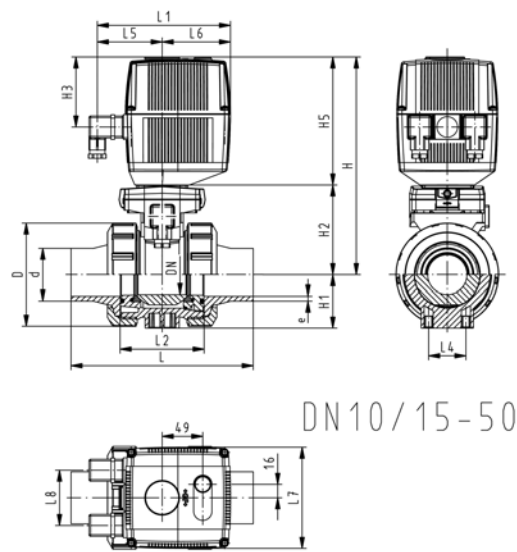
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 131 369	199 131 379	6.200
90	80	10	7000	199 131 370	199 131 380	8.000
110	100	10	11000	199 131 371	199 131 381	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	e [mm]
75	166	346	85	156	94	190	266	180	136	290	70	98	122	8.2
90	200	358	105	168	94	190	264	180	141	310	70	98	122	9.9
110	238	365	123	175	94	190	301	180	164	350	120	98	122	12.0





PROGEF Standard
Ball valve type 131 24V
With manual emergency override
With butt fusion spigots SDR17.6 metric

Model:

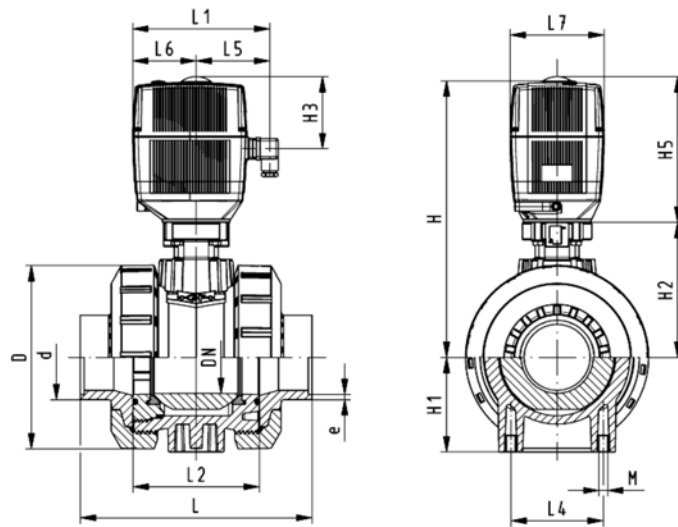
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Voltage 24 V AC/DC
- Control range 90°<
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 131 769	199 131 779	6.200
90	80	10	7000	199 131 770	199 131 780	8.000
110	100	10	11000	199 131 771	199 131 781	11.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L7 [mm]	L6 [mm]	e [mm]
75	166	346	85	156	94	190	266	180	136	290	70	98	122	83	4.6
90	200	358	105	168	94	190	264	180	141	310	70	98	122	83	5.5
110	238	365	123	175	94	190	301	180	164	350	120	98	122	83	6.7





PROGEF Standard

Ball valve type 131 100-230V

With manual emergency override

With backing flanges PP-st Inch ANSI

Model:

- Material: PP-H
- For easy installation and removal
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

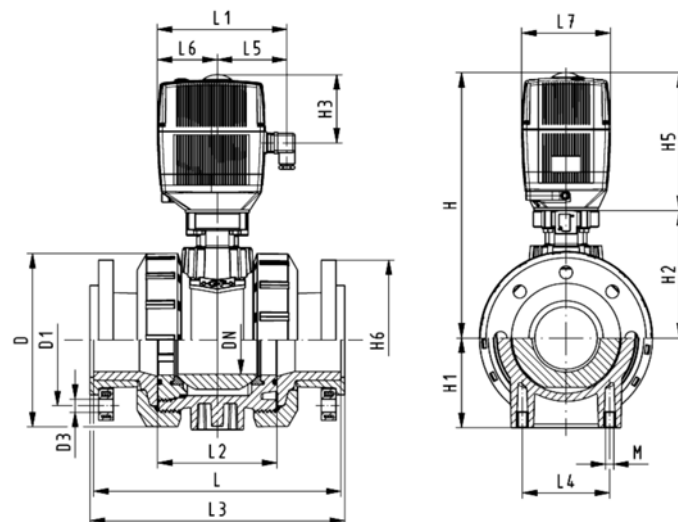
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 131 529	199 131 539	10.500
90	80	3	10	7000	199 131 530	199 131 540	13.200
110	100	4	10	11000	199 131 531	199 131 541	18.400

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66





DN10/15 - 50

PROGEF Standard Ball valve type 131 100-230V With manual emergency override With threaded sockets NPT

Model:

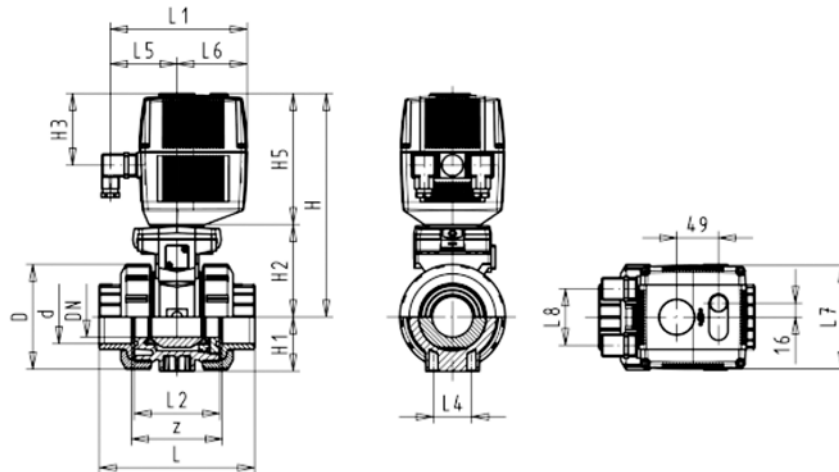
- Material: PP-H
- For easy installation and removal
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 131 402	199 131 412
1/2	15	10	185	199 131 403	199 131 413
3/4	20	10	350	199 131 404	199 131 414
1	25	10	700	199 131 405	199 131 415
1 1/4	32	10	1000	199 131 406	199 131 416
1 1/2	40	10	1600	199 131 407	199 131 417
2	50	10	3100	199 131 408	199 131 418

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	96	180	56	25	97	83	122	71
1/2	50	231	27	64	94	167	99	180	56	25	97	83	122	64
3/4	58	240	30	73	94	167	111	180	65	25	97	83	122	76
1	68	240	36	73	94	167	127	180	71	25	97	83	122	83
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	100
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	111
2	124	273	64	106	94	167	183	180	101	45	97	83	122	134





PROGEF Standard Ball valve type 131 24V With manual emergency override With backing flanges PP-st Inch ANSI

Model:

- Material: PP-H
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Control time: EA21: 5s/90°<, EA31: 15s/90°<
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

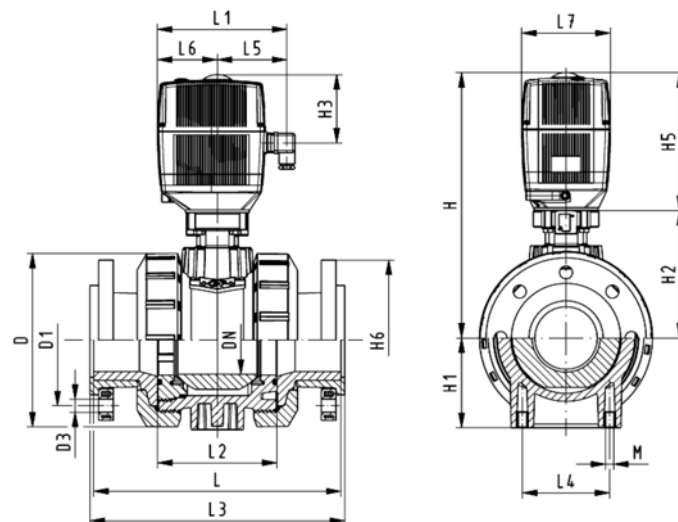
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 131 549	199 131 559	10.500
90	80	3	10	7000	199 131 550	199 131 560	13.200
110	100	4	10	11000	199 131 551	199 131 561	18.400

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
75	166	346	85	156	94	190	93	280	180	136	290	70	98	83	122
90	200	358	105	168	94	190	100	296	180	141	310	70	98	83	122
110	238	365	123	175	94	190	110	336	180	164	350	120	98	83	122

d [mm]	L8 [mm]
75	66
90	66
110	66





DN10/15 - 50

PROGEF Standard Ball valve type 131 24V With manual emergency override With threaded sockets NPT

Model:

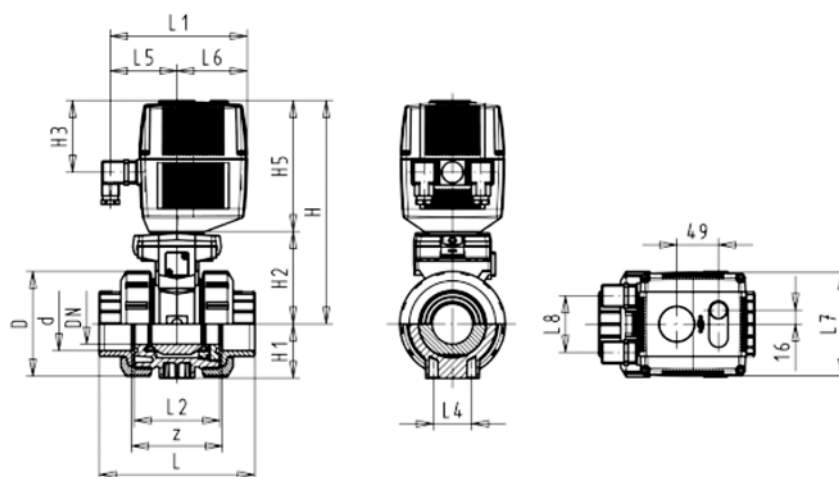
- Material: PP-H
- Voltage 24 V AC/DC
- Control range 90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Built on with electric actuator EA21
- Control time 5 s/90°<

Option:

- Individual configuration of the valve (see diagram)

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code
3/8	10	10	70	199 131 422	199 131 432
1/2	15	10	185	199 131 423	199 131 433
3/4	20	10	350	199 131 424	199 131 434
1	25	10	700	199 131 425	199 131 435
1 1/4	32	10	1000	199 131 426	199 131 436
1 1/2	40	10	1600	199 131 427	199 131 437
2	50	10	3100	199 131 428	199 131 438

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
3/8	50	231	27	64	94	167	96	180	56	25	97	83	122	71
1/2	50	231	27	64	94	167	99	180	56	25	97	83	122	64
3/4	58	240	30	73	94	167	111	180	65	25	97	83	122	76
1	68	240	36	73	94	167	127	180	71	25	97	83	122	83
1 1/4	84	251	44	84	94	167	146	180	85	45	97	83	122	100
1 1/2	97	251	51	84	94	167	157	180	89	45	97	83	122	111
2	124	273	64	106	94	167	183	180	101	45	97	83	122	134





PROGEF Standard
3-Way ball valve type 176
Horizontal/L-port 100-230V
With manual emergency override
With socket fusion spigots

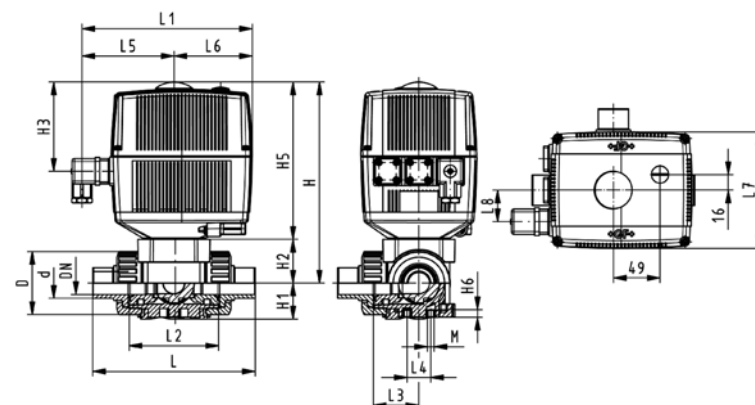
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	75	199 176 002	199 176 012	2.051
20	15	10	75	199 176 003	199 176 013	2.051
25	20	10	150	199 176 004	199 176 014	2.174
32	25	10	280	199 176 005	199 176 015	2.297
40	32	10	480	199 176 006	199 176 016	2.522
50	40	10	620	199 176 007	199 176 017	2.886
63	50	10	1230	199 176 008	199 176 018	3.818

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	46	197	29	31	93	166	8	119	182	70	36	25	99	83	122
20	46	197	29	31	93	166	8	133	182	70	36	25	99	83	122
25	56	205	33	39	93	166	8	155	182	86	43	25	99	83	122
32	67	210	38	44	93	166	8	170	182	96	48	25	99	83	122
40	82	216	44	50	93	166	9	201	182	114	58	45	99	83	122
50	98	229	50	63	93	166	9	236	182	137	69	45	99	83	122
63	121	242	61	76	93	166	9	286	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard
3-Way ball valve type 176
Horizontal/L-port 100-230V
With manual emergency override
With threaded sockets Rp

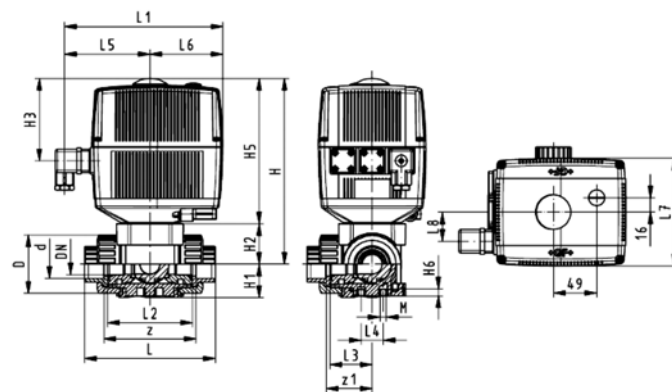
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 176 122	199 176 132	2.051
1/2	15	10	75	199 176 123	199 176 133	2.051
3/4	20	10	150	199 176 124	199 176 134	2.174
1	25	10	280	199 176 125	199 176 135	2.297
1 1/4	32	10	480	199 176 126	199 176 136	2.800
1 1/2	40	10	620	199 176 127	199 176 137	3.300
2	50	10	1230	199 176 128	199 176 138	3.818

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	46	197	29	31	93	166	8	108	182	70	36	25	99	83	122
1/2	46	197	29	31	93	166	8	111	182	70	36	25	99	83	122
3/4	56	205	33	39	93	166	8	131	182	86	43	25	99	83	122
1	67	210	38	44	93	166	8	148	182	96	48	25	99	83	122
1 1/4	82	216	44	50	93	166	9	177	182	114	58	45	99	83	122
1 1/2	98	229	50	63	93	166	9	205	182	137	69	45	99	83	122
2	121	242	61	76	93	166	9	261	182	179	90	45	99	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	78	39
1/2	33	6	79	40
3/4	33	6	95	48
1	33	6	108	54
1 1/4	33	8	133	67
1 1/2	33	8	155	78
2	33	8	203	102





PROGEF Standard
3-Way ball valve type 176
Horizontal/L-port 24V
With manual emergency override
With socket fusion spigots

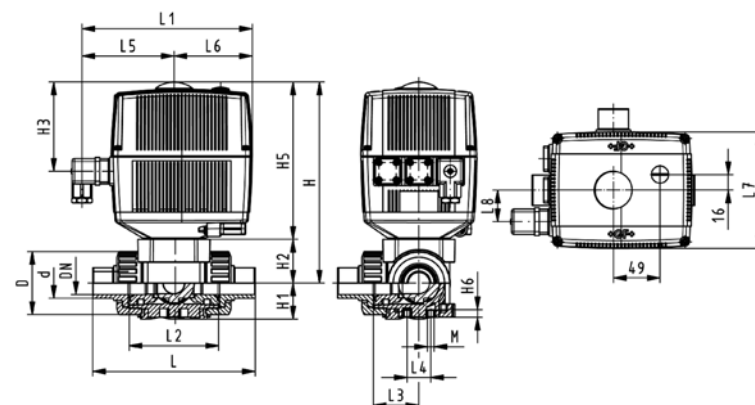
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	75	199 176 162	199 176 172	2.051
20	15	10	75	199 176 163	199 176 173	2.051
25	20	10	150	199 176 164	199 176 174	2.300
32	25	10	280	199 176 165	199 176 175	2.400
40	32	10	480	199 176 166	199 176 176	2.522
50	40	10	620	199 176 167	199 176 177	2.886
63	50	10	1230	199 176 168	199 176 178	3.818

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	46	197	29	31	93	166	8	119	182	70	36	25	99	83	122
20	46	197	29	31	93	166	8	133	182	70	36	25	99	83	122
25	56	205	33	39	93	166	8	155	182	86	43	25	99	83	122
32	67	210	38	44	93	166	8	170	182	96	48	25	99	83	122
40	82	216	44	50	93	166	9	201	182	114	58	45	99	83	122
50	98	229	50	63	93	166	9	236	182	137	69	45	99	83	122
63	121	242	61	76	93	166	9	286	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard
3-Way ball valve type 176
Horizontal/L-port 24V
With manual emergency override
With threaded sockets Rp

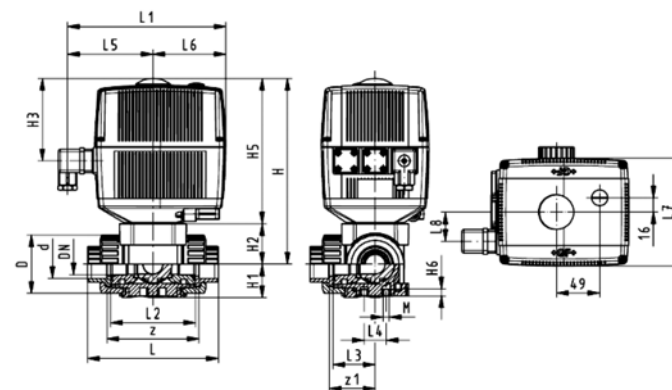
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 176 282	199 176 292	2.050
1/2	15	10	75	199 176 283	199 176 293	2.051
3/4	20	10	150	199 176 284	199 176 294	2.174
1	25	10	280	199 176 285	199 176 295	2.297
1 1/4	32	10	480	199 176 286	199 176 296	2.522
1 1/2	40	10	620	199 176 287	199 176 297	2.886
2	50	10	1230	199 176 288	199 176 298	3.818

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	46	197	29	31	93	166	8	108	182	70	36	25	99	83	122
1/2	46	197	29	31	93	166	8	111	182	70	36	25	99	83	122
3/4	56	205	33	39	93	166	8	131	182	86	43	25	99	83	122
1	67	210	38	44	93	166	8	148	182	96	48	25	99	83	122
1 1/4	82	216	44	50	93	166	9	177	182	114	58	45	99	83	122
1 1/2	98	229	50	63	93	166	9	205	182	137	69	45	99	83	122
2	121	242	61	76	93	166	9	261	182	179	90	45	99	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	78	39
1/2	33	6	79	40
3/4	33	6	95	48
1	33	6	108	54
1 1/4	33	8	133	67
1 1/2	33	8	155	78
2	33	8	203	102





PROGEF Standard
3-Way ball valve type 176
Horizontal/T-port 100-230V
With manual emergency override
With socket fusion spigots

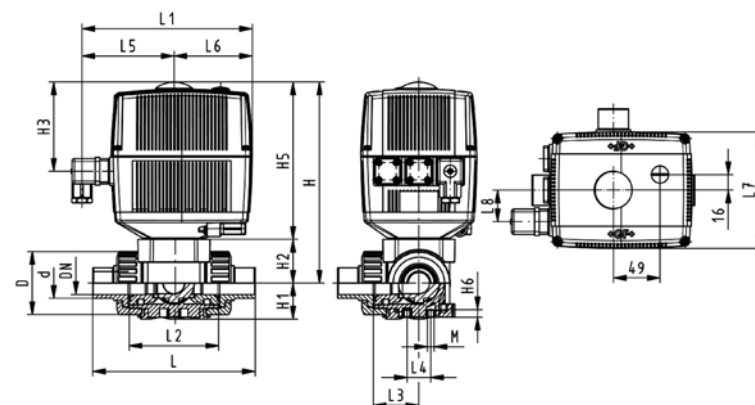
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	200	199 176 042	199 176 052	2.051
20	15	10	200	199 176 043	199 176 053	2.051
25	20	10	470	199 176 044	199 176 054	2.174
32	25	10	793	199 176 045	199 176 055	2.297
40	32	10	1290	199 176 046	199 176 056	2.800
50	40	10	1910	199 176 047	199 176 057	3.300
63	50	10	3100	199 176 048	199 176 058	3.818

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	46	197	29	31	93	166	8	119	182	70	36	25	99	83	122
20	46	197	29	31	93	166	8	133	182	70	36	25	99	83	122
25	56	205	33	39	93	166	8	155	182	86	43	25	99	83	122
32	67	210	38	44	93	166	8	170	182	96	48	25	99	83	122
40	82	216	44	50	93	166	9	201	182	114	58	45	99	83	122
50	98	229	50	63	93	166	9	236	182	137	69	45	99	83	122
63	121	242	61	76	93	166	9	286	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard
3-Way ball valve type 176
Horizontal/T-port 100-230V
With manual emergency override
With threaded sockets Rp

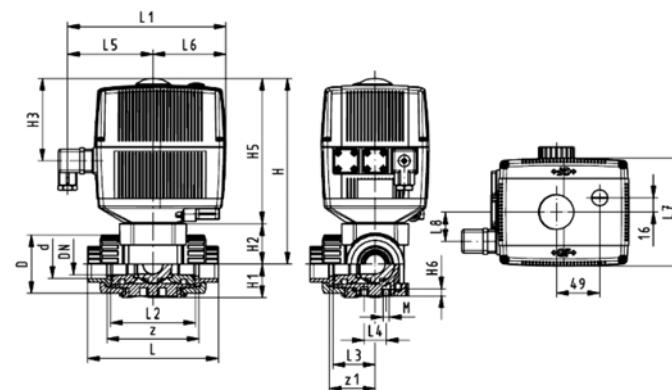
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 176 142	199 176 152	2.051
1/2	15	10	200	199 176 143	199 176 153	2.051
3/4	20	10	470	199 176 144	199 176 154	2.174
1	25	10	793	199 176 145	199 176 155	2.400
1 1/4	32	10	1290	199 176 146	199 176 156	2.800
1 1/2	40	10	1910	199 176 147	199 176 157	2.886
2	50	10	3100	199 176 148	199 176 158	3.818

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	46	197	29	31	93	166	8	108	182	70	36	25	99	83	122
1/2	46	197	29	31	93	166	8	111	182	70	36	25	99	83	122
3/4	56	205	33	39	93	166	8	131	182	86	43	25	99	83	122
1	67	210	38	44	93	166	8	148	182	96	48	25	99	83	122
1 1/4	82	216	44	50	93	166	9	177	182	114	58	45	99	83	122
1 1/2	98	229	50	63	93	166	9	205	182	137	69	45	99	83	122
2	121	242	61	76	93	166	9	261	182	179	90	45	99	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	78	39
1/2	33	6	79	40
3/4	33	6	95	48
1	33	6	108	54
1 1/4	33	8	133	67
1 1/2	33	8	155	78
2	33	8	203	102





PROGEF Standard
3-Way ball valve type 176
Horizontal/T-port 24V
With manual emergency override
With socket fusion spigots

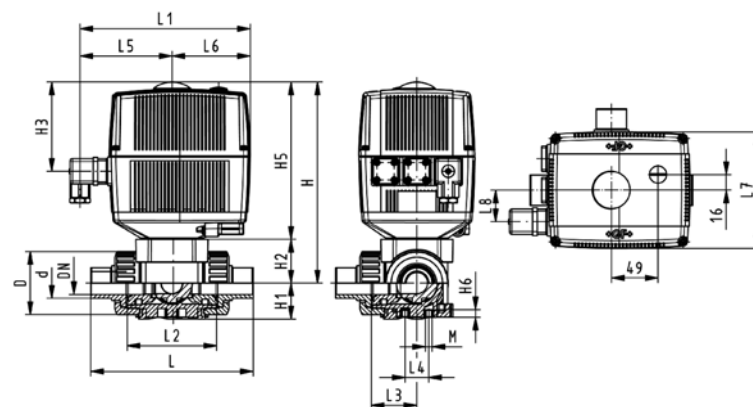
Model:

- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	200	199 176 202	199 176 212	2.051
20	15	10	200	199 176 203	199 176 213	2.051
25	20	10	470	199 176 204	199 176 214	2.174
32	25	10	793	199 176 205	199 176 215	2.297
40	32	10	1290	199 176 206	199 176 216	2.522
50	40	10	1910	199 176 207	199 176 217	2.886
63	50	10	3100	199 176 208	199 176 218	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	46	197	29	31	93	166	8	119	182	70	36	25	99	83	122
20	46	197	29	31	93	166	8	133	182	70	36	25	99	83	122
25	56	205	33	39	93	166	8	155	182	86	43	25	99	83	122
32	67	210	38	44	93	166	8	170	182	96	48	25	99	83	122
40	82	216	44	50	93	166	9	201	182	114	58	45	99	83	122
50	98	229	50	63	93	166	9	236	182	137	69	45	99	83	122
63	121	242	61	76	93	166	9	286	182	179	90	45	99	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard
3-Way ball valve type 176
Horizontal/T-port 24V
With manual emergency override
With threaded sockets Rp

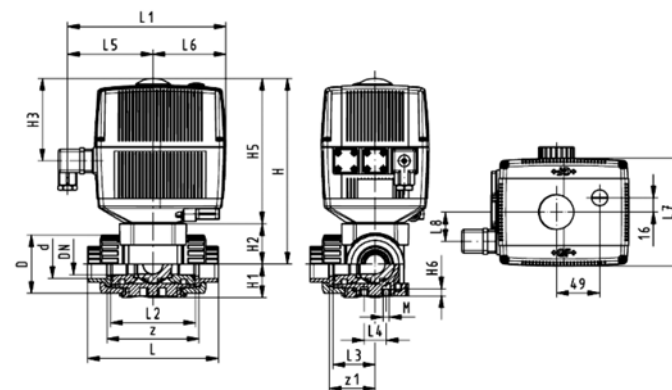
Model:

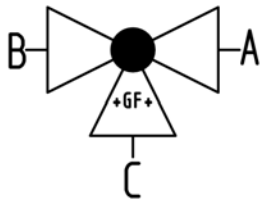
- Material: PP-H
- Assignment of actuators: EA21 (DN10/15-50), EA31 (DN65-100 if available)
- Voltage 24 V AC/DC
- Control range 90°<
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 176 302	199 176 312	2.051
1/2	15	10	200	199 176 303	199 176 313	2.051
3/4	20	10	470	199 176 304	199 176 314	2.174
1	25	10	793	199 176 305	199 176 315	2.297
1 1/4	32	10	1290	199 176 306	199 176 316	2.522
1 1/2	40	10	1910	199 176 307	199 176 317	2.886
2	50	10	3100	199 176 308	199 176 318	3.800

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	46	197	29	31	93	166	8	108	182	70	36	25	99	83	122
1/2	46	197	29	31	93	166	8	111	182	70	36	25	99	83	122
3/4	56	205	33	39	93	166	8	131	182	86	43	25	99	83	122
1	67	210	38	44	93	166	8	148	182	96	48	25	99	83	122
1 1/4	82	216	44	50	93	166	9	177	182	114	58	45	99	83	122
1 1/2	98	229	50	63	93	166	9	205	182	137	69	45	99	83	122
2	121	242	61	76	93	166	9	261	182	179	90	45	99	83	122

Inch	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	78	39
1/2	33	6	79	40
3/4	33	6	95	48
1	33	6	108	54
1 1/4	33	8	133	67
1 1/2	33	8	155	78
2	33	8	203	102





PROGEF Standard

3-Way ball valve type 186

Horizontal/L-port 100-230V

With manual emergency override

With fusion sockets metric



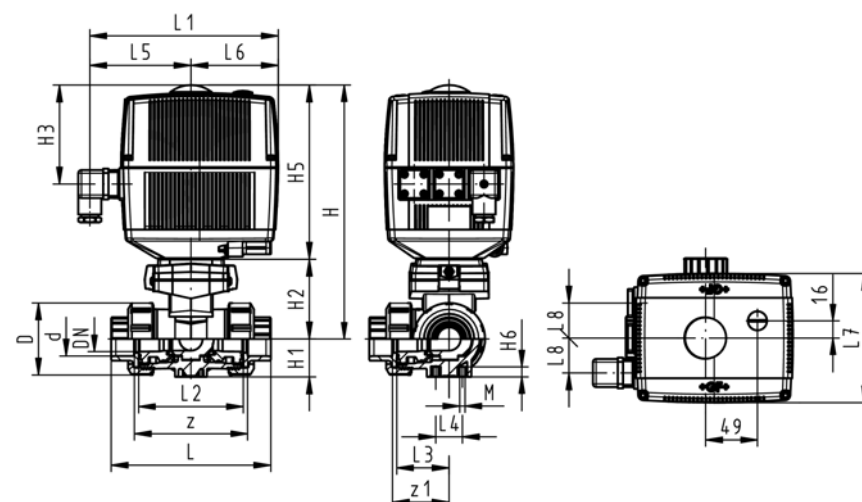
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 186 022	199 186 032	2.038
20	15	10	75	199 186 023	199 186 033	2.042
25	20	10	150	199 186 024	199 186 034	2.132
32	25	10	280	199 186 025	199 186 035	2.257
40	32	10	480	199 186 026	199 186 036	2.548
50	40	10	620	199 186 027	199 186 037	2.844
63	50	10	1230	199 186 028	199 186 038	3.751

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94

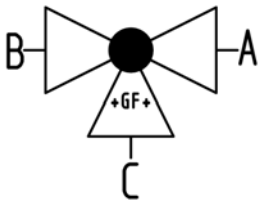




PROGEF Standard
3-Way ball valve type 186
Horizontal/L-port 100-230V
With manual emergency override
With threaded sockets Rp reinforced

Model:

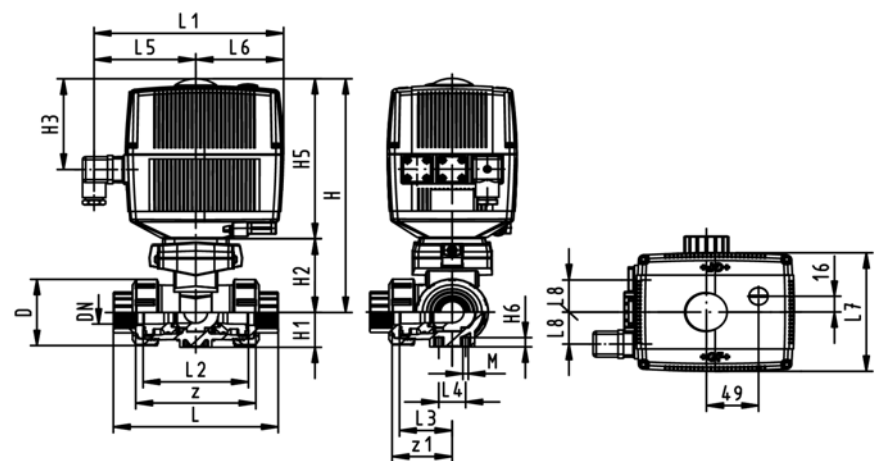
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

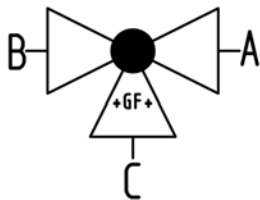


Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 186 122	199 186 132	2.038
1/2	15	10	75	199 186 123	199 186 133	2.042
3/4	20	10	150	199 186 124	199 186 134	2.132
1	25	10	280	199 186 125	199 186 135	2.257
1 1/4	32	10	480	199 186 126	199 186 136	2.548
1 1/2	40	10	620	199 186 127	199 186 137	2.844
2	50	10	1230	199 186 128	199 186 138	3.751

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98





PROGEF Standard

3-Way ball valve type 186

Horizontal/L-port 100-230V

With manual emergency override

With socket fusion spigots metric



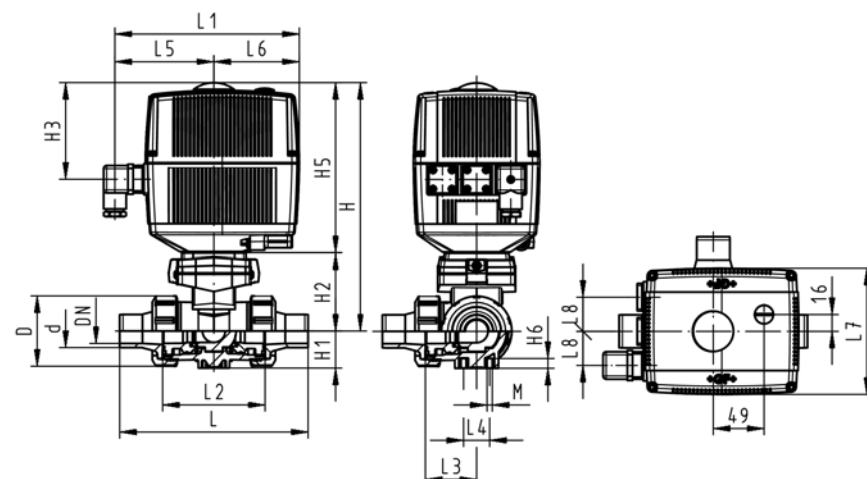
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 186 002	199 186 012	2.042
20	15	10	75	199 186 003	199 186 013	2.048
25	20	10	150	199 186 004	199 186 014	2.142
32	25	10	280	199 186 005	199 186 015	2.272
40	32	10	480	199 186 006	199 186 016	2.562
50	40	10	620	199 186 007	199 186 017	2.885
63	50	10	1230	199 186 008	199 186 018	3.833

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8

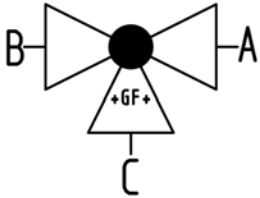




PROGEF Standard
3-Way ball valve type 186
Horizontal/L-port 100-230V
With manual emergency override
With butt fusion spigots
IR-Plus SDR11 metric

Model:

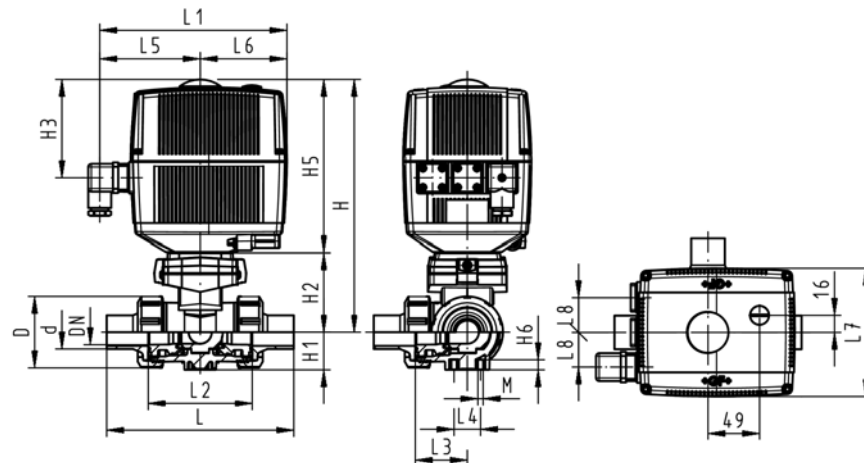
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

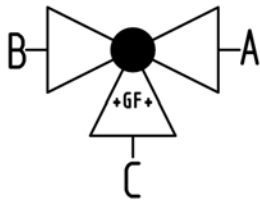


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	199 186 083	199 186 093	2.048
25	20	10	150	199 186 084	199 186 094	2.142
32	25	10	280	199 186 085	199 186 095	2.272
40	32	10	480	199 186 086	199 186 096	2.562
50	40	10	620	199 186 087	199 186 097	2.885
63	50	10	1230	199 186 088	199 186 098	3.833

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard

3-Way ball valve type 186

Horizontal/L-port 24V

With manual emergency override

With fusion sockets metric



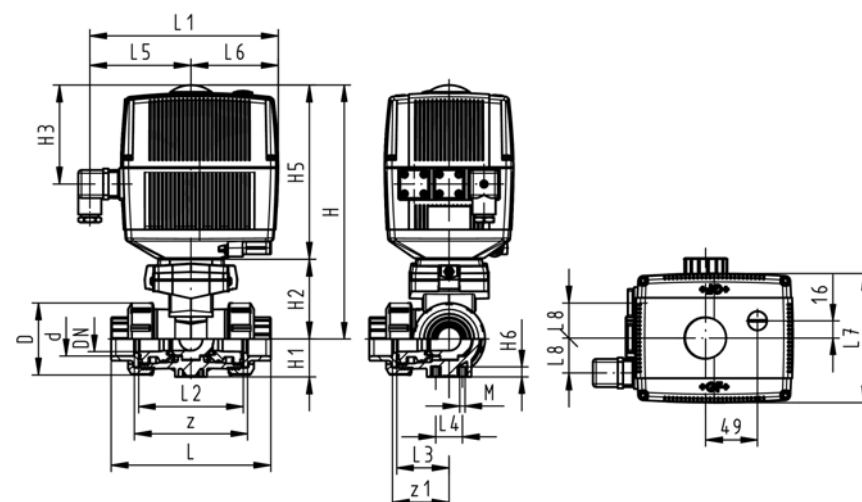
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 186 182	199 186 192	2.038
20	15	10	75	199 186 183	199 186 193	2.042
25	20	10	150	199 186 184	199 186 194	2.132
32	25	10	280	199 186 185	199 186 195	2.257
40	32	10	480	199 186 186	199 186 196	2.548
50	40	10	620	199 186 187	199 186 197	2.844
63	50	10	1230	199 186 188	199 186 198	3.751

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94

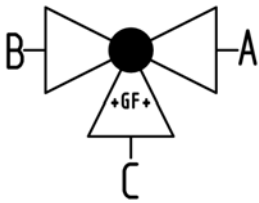




PROGEF Standard
3-Way ball valve type 186
Horizontal/L-port 24V
With manual emergency override
With threaded sockets Rp reinforced

Model:

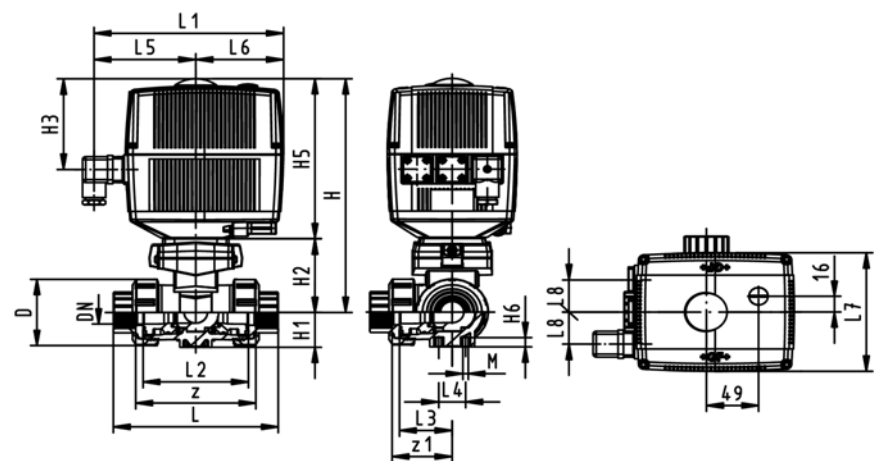
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

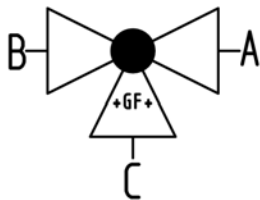


Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 186 282	199 186 292	2.038
1/2	15	10	75	199 186 283	199 186 293	2.042
3/4	20	10	150	199 186 284	199 186 294	2.132
1	25	10	280	199 186 285	199 186 295	2.257
1 1/4	32	10	480	199 186 286	199 186 296	2.548
1 1/2	40	10	620	199 186 287	199 186 297	2.844
2	50	10	1230	199 186 288	199 186 298	3.751

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98





PROGEF Standard

3-Way ball valve type 186

Horizontal/L-port 24V

With manual emergency override

With socket fusion spigots metric



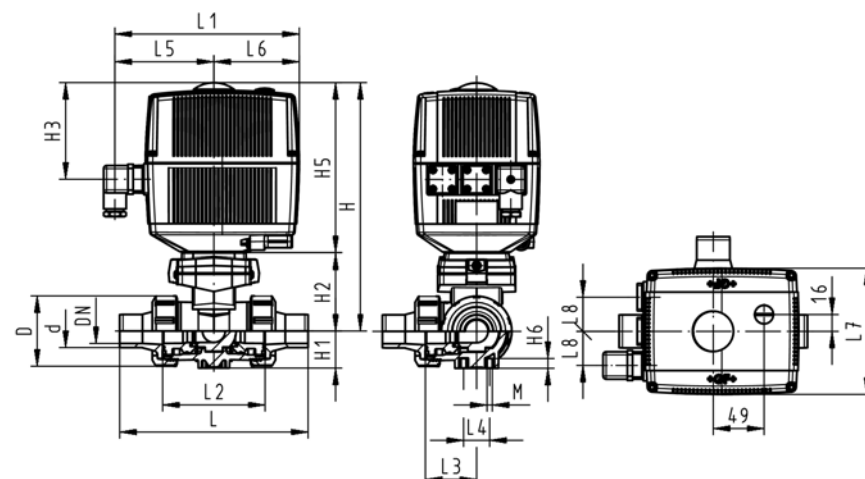
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 186 162	199 186 172	2.042
20	15	10	75	199 186 163	199 186 173	2.048
25	20	10	150	199 186 164	199 186 174	2.142
32	25	10	280	199 186 165	199 186 175	2.272
40	32	10	480	199 186 166	199 186 176	2.562
50	40	10	620	199 186 167	199 186 177	2.885
63	50	10	1230	199 186 168	199 186 178	3.833

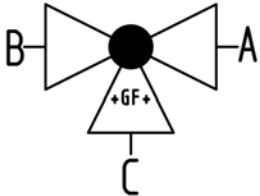
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard
3-Way ball valve type 186
Horizontal/L-port 24V
With manual emergency override
With butt fusion spigots
IR-Plus SDR11 metric



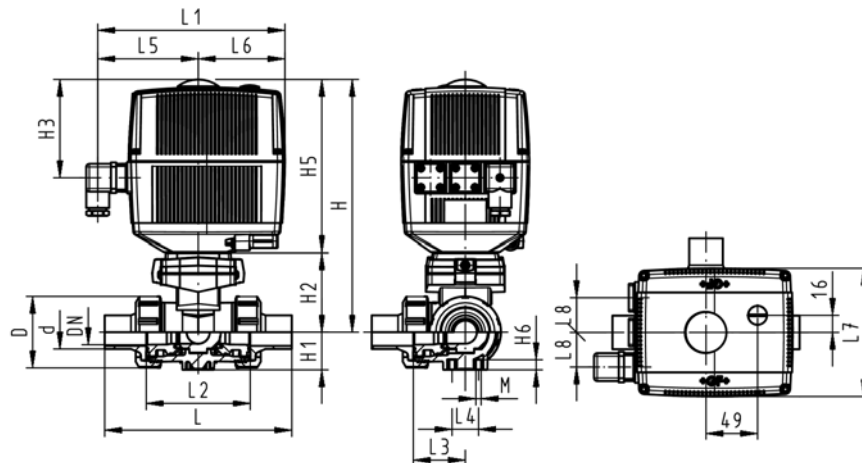
Model:

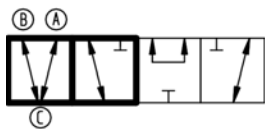
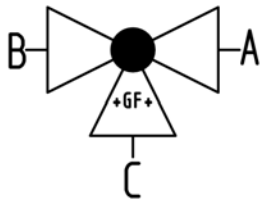
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	199 186 243	199 186 253	2.048
25	20	10	150	199 186 244	199 186 254	2.142
32	25	10	280	199 186 245	199 186 255	2.272
40	32	10	480	199 186 246	199 186 256	2.562
50	40	10	620	199 186 247	199 186 257	2.885
63	50	10	1230	199 186 248	199 186 258	3.833

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard

3-Way ball valve type 186

Horizontal/T-port 100-230V

With manual emergency override

With fusion sockets metric



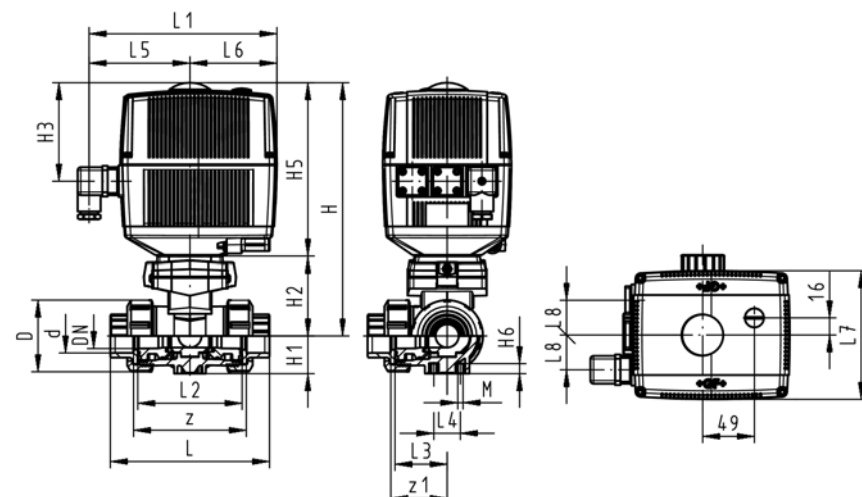
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 186 062	199 186 072	2.038
20	15	10	200	199 186 063	199 186 073	2.042
25	20	10	470	199 186 064	199 186 074	2.131
32	25	10	793	199 186 065	199 186 075	2.252
40	32	10	1290	199 186 066	199 186 076	2.541
50	40	10	1910	199 186 067	199 186 077	2.830
63	50	10	3100	199 186 068	199 186 078	3.722

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94

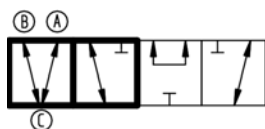
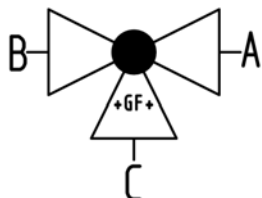




PROGEF Standard
3-Way ball valve type 186
Horizontal/T-port 100-230V
With manual emergency override
With threaded sockets Rp reinforced

Model:

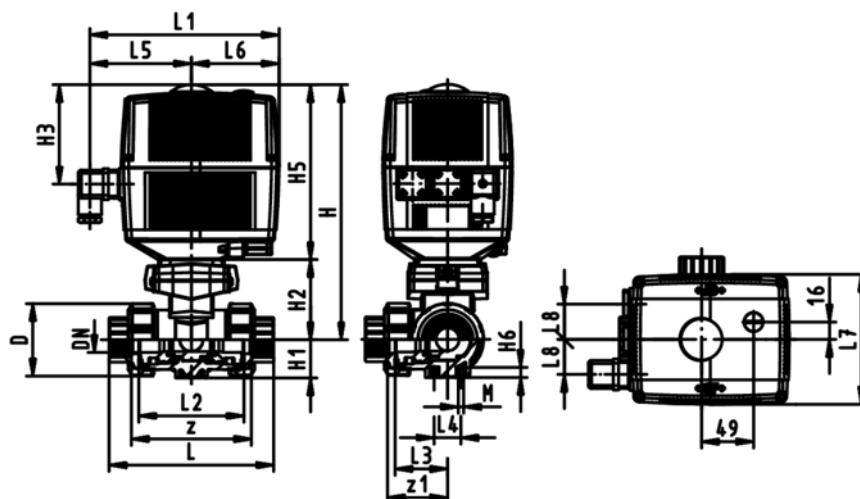
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

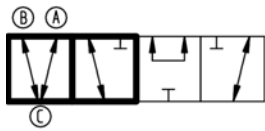
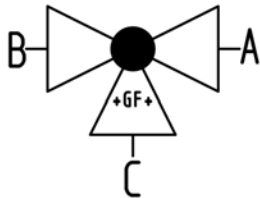


Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 186 142	199 186 152	2.038
1/2	15	10	200	199 186 143	199 186 153	2.042
3/4	20	10	470	199 186 144	199 186 154	2.131
1	25	10	793	199 186 145	199 186 155	2.252
1 1/4	32	10	1290	199 186 146	199 186 156	2.541
1 1/2	40	10	1910	199 186 147	199 186 157	2.830
2	50	10	3100	199 186 148	199 186 158	3.722

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98





PROGEF Standard

3-Way ball valve type 186

Horizontal/T-port 100-230V

With manual emergency override

With socket fusion spigots metric



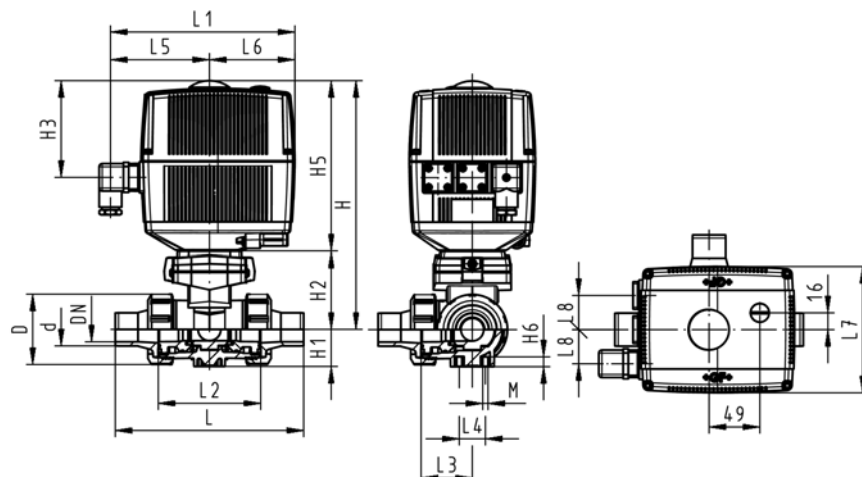
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 186 042	199 186 052	2.042
20	15	10	200	199 186 043	199 186 053	2.048
25	20	10	470	199 186 044	199 186 054	2.141
32	25	10	793	199 186 045	199 186 055	2.268
40	32	10	1290	199 186 046	199 186 056	2.555
50	40	10	1910	199 186 047	199 186 057	2.872
63	50	10	3100	199 186 048	199 186 058	3.804

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8

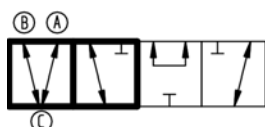
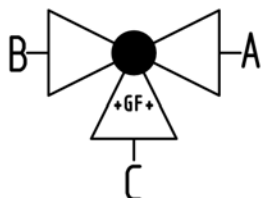




PROGEF Standard
3-Way ball valve type 186
Horizontal/T-port 100-230V
With manual emergency override
With butt fusion spigots
IR-Plus SDR11 metric

Model:

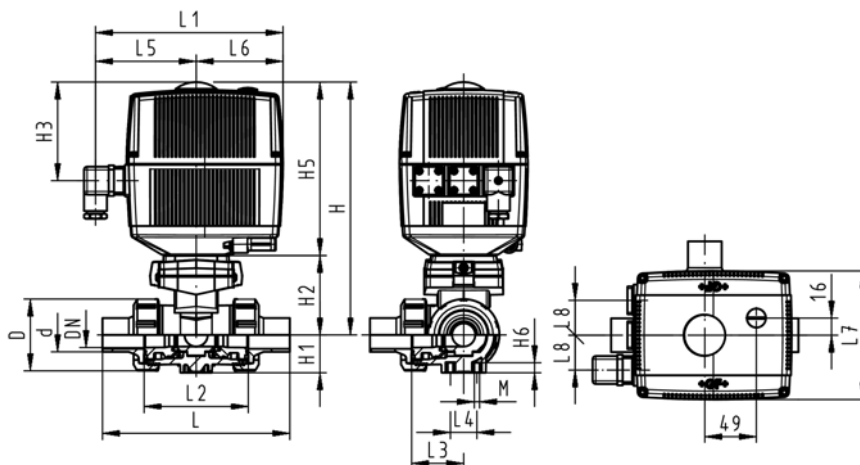
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 100-230 V, 50-60 Hz
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

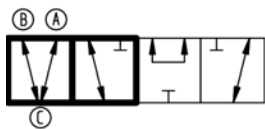
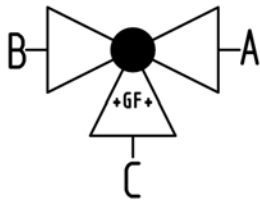


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	199 186 103	199 186 113	2.048
25	20	10	470	199 186 104	199 186 114	2.141
32	25	10	793	199 186 105	199 186 115	2.268
40	32	10	1290	199 186 106	199 186 116	2.555
50	40	10	1910	199 186 107	199 186 117	2.872
63	50	10	3100	199 186 108	199 186 118	3.804

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard

3-Way ball valve type 186

Horizontal/T-port 24V

With manual emergency override

With fusion sockets metric



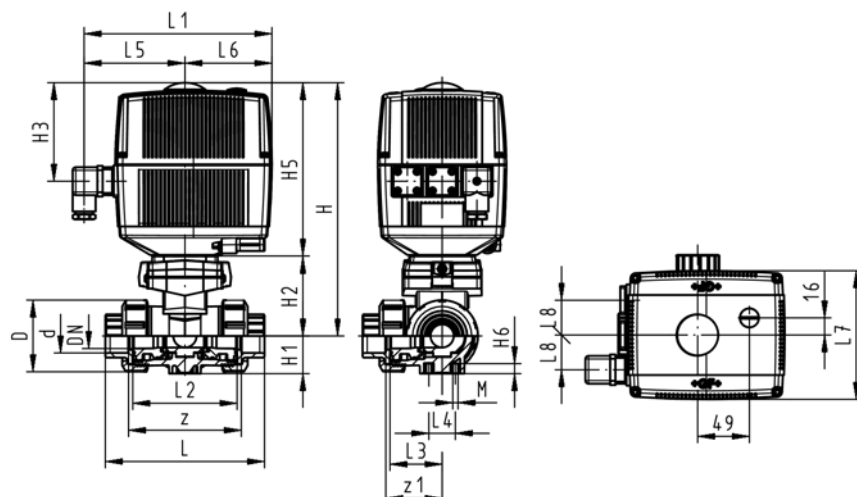
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 186 222	199 186 232	2.038
20	15	10	200	199 186 223	199 186 233	2.042
25	20	10	470	199 186 224	199 186 234	2.131
32	25	10	793	199 186 225	199 186 235	2.252
40	32	10	1290	199 186 226	199 186 236	2.541
50	40	10	1910	199 186 227	199 186 237	2.830
63	50	10	3100	199 186 228	199 186 238	3.722

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	110	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	129	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	146	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	170	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	193	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	244	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M	z [mm]	z1 [mm]
16	33	6	82	41
20	33	6	82	41
25	33	6	97	49
32	33	6	110	55
40	33	8	132	66
50	33	8	151	76
63	33	8	188	94

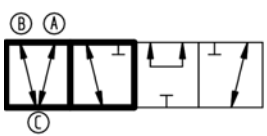
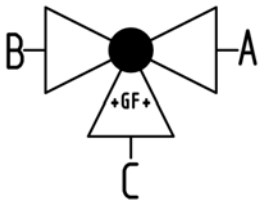




PROGEF Standard
3-Way ball valve type 186
Horizontal/T-port 24V
With manual emergency override
With threaded sockets Rp reinforced

Model:

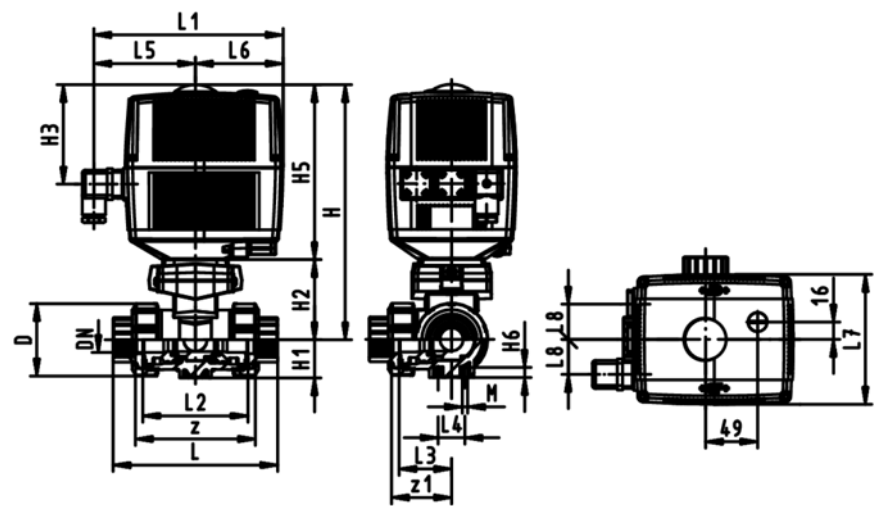
- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

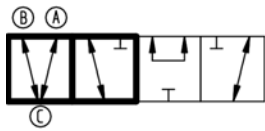
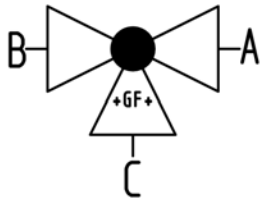


Rp [inch]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 186 302	199 186 312	2.038
1/2	15	10	200	199 186 303	199 186 313	2.042
3/4	20	10	470	199 186 304	199 186 314	2.131
1	25	10	793	199 186 305	199 186 315	2.252
1 1/4	32	10	1290	199 186 306	199 186 316	2.541
1 1/2	40	10	1910	199 186 307	199 186 317	2.830
2	50	10	3100	199 186 308	199 186 318	3.722

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
3/8	50	231	28	64	94	167	8	112	180	72	36	25	97	83	122
1/2	50	231	28	64	94	167	8	114	180	72	36	25	97	83	122
3/4	58	240	32	73	94	167	8	131	180	85	43	25	97	83	122
1	68	240	36	73	94	167	8	154	180	98	49	25	97	83	122
1 1/4	84	251	45	84	94	167	9	180	180	118	59	45	97	83	122
1 1/2	97	251	51	84	94	167	9	203	180	135	68	45	97	83	122
2	124	273	65	106	94	167	9	258	180	176	88	45	97	83	122

Rp [inch]	L8 [mm]	M	z [mm]	z1 [mm]
3/8	33	6	86	43
1/2	33	6	84	42
3/4	33	6	99	50
1	33	6	112	56
1 1/4	33	8	132	66
1 1/2	33	8	153	77
2	33	8	196	98





PROGEF Standard

3-Way ball valve type 186

Horizontal/T-port 24V

With manual emergency override

With socket fusion spigots metric



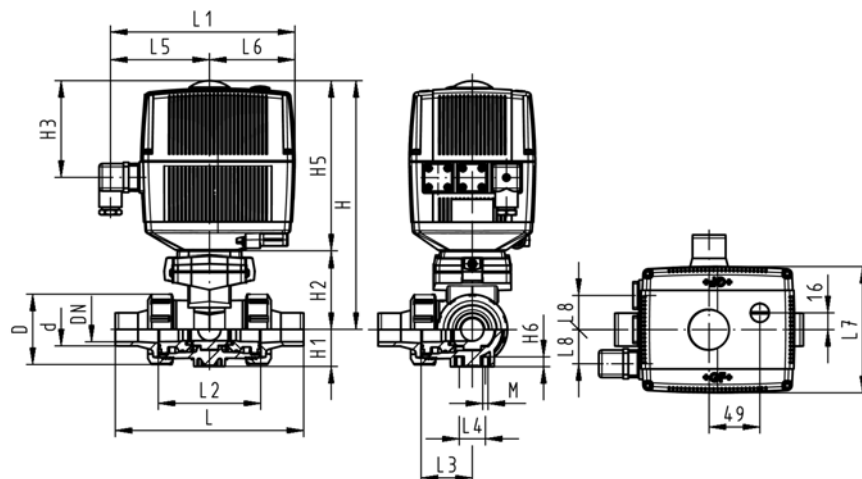
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 186 202	199 186 212	2.042
20	15	10	200	199 186 203	199 186 213	2.048
25	20	10	470	199 186 204	199 186 214	2.141
32	25	10	793	199 186 205	199 186 215	2.268
40	32	10	1290	199 186 206	199 186 216	2.555
50	40	10	1910	199 186 207	199 186 217	2.872
63	50	10	3100	199 186 208	199 186 218	3.804

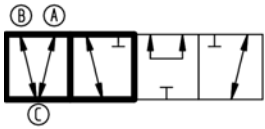
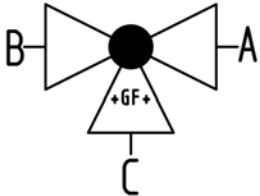
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	231	28	64	94	167	8	126	180	72	36	25	97	83	122
20	50	231	28	64	94	167	8	136	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	159	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
16	33	6
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8





PROGEF Standard
3-Way ball valve type 186
Horizontal/T-port 24V
With manual emergency override
With butt fusion spigots
IR-Plus SDR11 metric



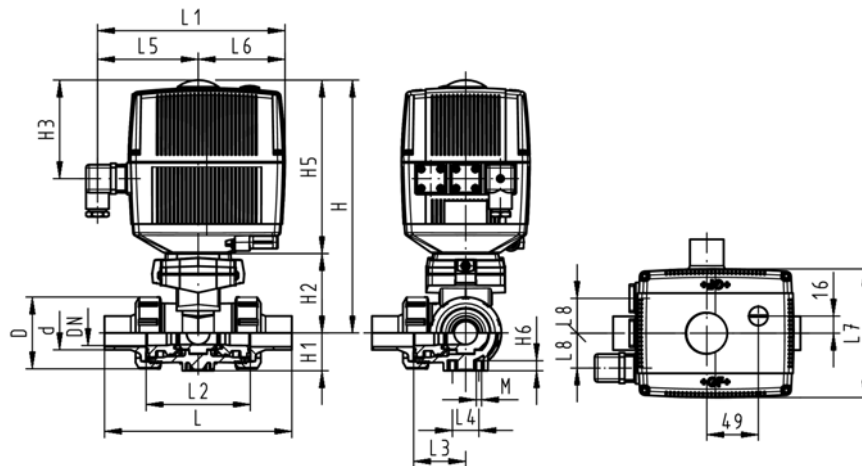
Model:

- Material: PP-H
- Built on with electric actuator EA21
- Voltage 24 V AC/DC
- Control range 90°<
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Other positions possible by adjusting the limit switches
- Control time 5 s/90°<
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	199 186 263	199 186 273	2.048
25	20	10	470	199 186 264	199 186 274	2.141
32	25	10	793	199 186 265	199 186 275	2.268
40	32	10	1290	199 186 266	199 186 276	2.555
50	40	10	1910	199 186 267	199 186 277	2.872
63	50	10	3100	199 186 268	199 186 278	3.804

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	231	28	64	94	167	8	146	180	72	36	25	97	83	122
25	58	240	32	73	94	167	8	163	180	85	43	25	97	83	122
32	68	240	36	73	94	167	8	178	180	98	49	25	97	83	122
40	84	251	45	84	94	167	9	204	180	118	59	45	97	83	122
50	97	251	51	84	94	167	9	237	180	135	68	45	97	83	122
63	124	273	65	106	94	167	9	296	180	176	88	45	97	83	122

d [mm]	L8 [mm]	M
20	33	6
25	33	6
32	33	6
40	33	8
50	33	8
63	33	8



Copiable

Configurator GF ball valve type 546 PROGEF Standard

Ball Valve

- A01 Ball Valve 546
- A02 Linear Ball Valve

Material

- B05 PP-H

Dimension

- C05 d 16 DN 10 3/8"
- C06 d 20 DN 15 1/2"
- C07 d 25 DN 20 3/4"
- C08 d 32 DN 25 1"
- C09 d 40 DN 32 1 1/4"
- C10 d 50 DN 40 1 1/2"
- C11 d 63 DN 50 2"
- C12 DN 65 2 1/2"
- C13 DN 80 3"
- C14 DN 100 4"
- C15 DN 150 6"

Version

- D01 Standard, PTFE ball seal
- D02 oilfree, PTFE ball seal (only with specific connecting parts)
- D03 silicon-free, PTFE ball seal (only with specific connecting parts)
- D04 silicon-free, PVDF ball seal for metric (only with specific connecting parts)

Seals

- E01 EPDM seals
- E02 FPM seals
- E03 FFPM/KALREZ® seals

Threaded inserts

- F01 without threaded inserts
- F02 with threaded inserts

Connecting parts

- G30 PP-H Fusion socket metric
- G32 PP-H Socket fusion spigot metric
- G33 PP-H Threaded socket Rp reinforced
- G34 PP-H Threaded socket NPT reinforced
- G35 PP-H Butt fusion spigot SDR 11 metric IR-PLUS®
- G36 PP-H Butt fusion spigot SDR 17.6 metric with this valve end the maximum nominal pressure is reduced to PN 6
- G37 PP-H Butt fusion spigot long SDR11 metric
- G43 PE-100 Butt fusion spigot long SDR11 metric
- G44 PE-100 Butt fusion spigot long SDR17.6 metric
- G63 Fixed flange PP-H serrated metric
- G72 Backing flange PP-steel metric
- G73 Backing flange PP-steel inch ANSI
- G77 Backing flange PP JIS with connecting parts
- G78 Backing flange PP-GF JIS
- G83 PP-H Valve end blank
- G40 PE-100 Fusion socket metric
- G41 PE-100 Butt fusion spigot SDR11 metric
- G42 PE-100 Butt fusion spigot SDR17.6 metric
- G43 PE-100 Butt fusion spigot long SDR11 metric
- G11 PVC-C Cement socket metric
- G13 PVC-C Cement socket inch ASTM
- G14 PVC-C Cement spigot metric
- G15 PVC-C Threaded socket Rp
- G16 PVC-C Threaded socket Rp reinforced
- G17 PVC-C Threaded socket NPT

Multi-functional module

- I01 No multi-functional module
- I02 Empty module
- I03 Module with 2 end switches Ag, Ni
- I04 Module with 2 end switches Au
- I05 Module with 2 inductive switches Namur
- I06 Module with 2 inductive switches PNP
- I07 Module with 2 inductive switches NPN

Lever

- K01 Standard lever red
- K02 Standard lever black
- K11 Multi-functional lever red

Mounting plate

- L01 without mounting plate
- L02 with mounting plate

A01

B05

C

D

E

F

G

G

I

K

L

left

right

You will find a large selection of different versions in our range of products. New system elements also provide you with new opportunities for use. In order for us to supply exactly the ball valve you need for you application, we have created a selection menu for you. (Der maximal zulässige Betriebsdruck des Kugelhahns ist PN 10).

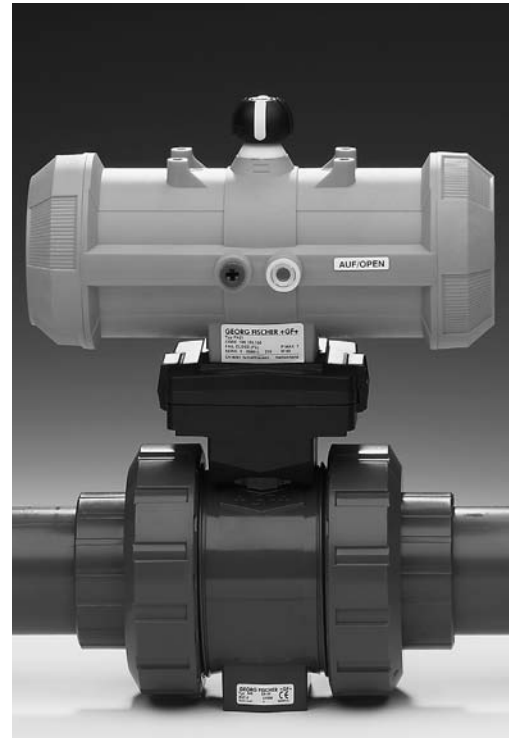
We supply what you put together.

Copiable GF ball valve type 546 with pneumatic actuator

It's so easy to configure the type 546:

With the configurator, you have a choice of new pneumatic actuators PA11 and PA21 in 2 optimized sizes including a large range of accessories.

We supply what you put together.



Pneumatic actuators PA11/PA21

- P01 Fail safe to close PA11/PA21
- P02 Fail safe to open PA11/21
- P03 Double acting PA11/21
- P30 Fail safe to close PA30/90
- P31 Fail safe to open PA30/90
- P32 Double acting PA30/90

Manual override

- Q01 without manual override
- Q02 with manual override

Stroke limiter

- R01 without stroke limiter
- R02 with stroke limiter

P	Q	R	
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Ball Valves Pneumatic

PROGEF Standard

Ball valve type 231 FC (Fail safe to close)

With manual override

With fusion sockets metric



DN10/15 - 50

Model:

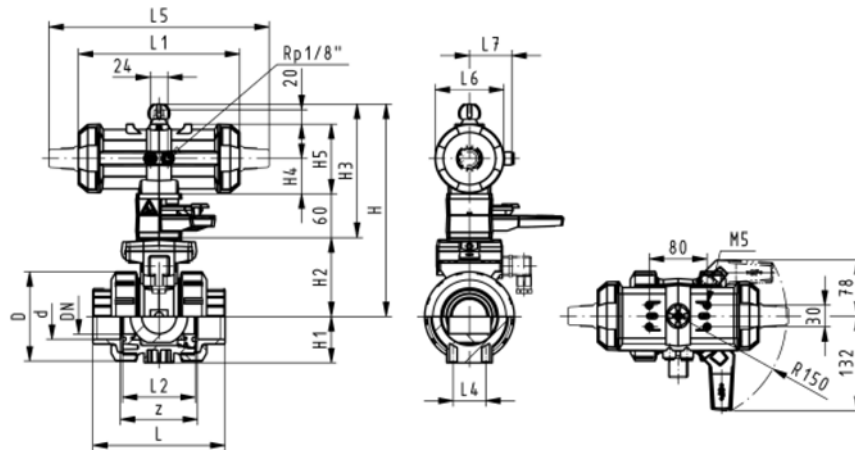
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time $90^\circ <$ 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 002	199 231 012	1.500
20	15	10	185	199 231 003	199 231 013	1.500
25	20	10	350	199 231 004	199 231 014	1.600
32	25	10	700	199 231 005	199 231 015	1.700
40	32	10	1000	199 231 006	199 231 016	2.800
50	40	10	1600	199 231 007	199 231 017	3.100
63	50	10	3100	199 231 008	199 231 018	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117





DN10/15 - 50

PROGEF Standard Ball valve type 231 FC (Fail safe to close) With manual override With socket fusion spigots metric

Model:

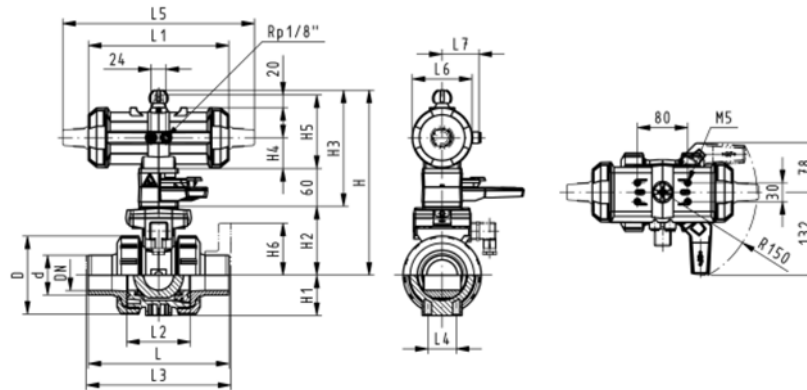
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 022	199 231 032	1.500
20	15	10	185	199 231 023	199 231 033	1.500
25	20	10	350	199 231 024	199 231 034	1.600
32	25	10	700	199 231 025	199 231 035	1.700
40	32	10	1000	199 231 026	199 231 036	2.800
50	40	10	1600	199 231 027	199 231 037	3.100
63	50	10	3100	199 231 028	199 231 038	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	110	194	56		25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59





DN10/15 - 50

PROGEF Standard Ball valve type 231 FC (Fail safe to close) With manual override With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time $90^\circ <$ 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

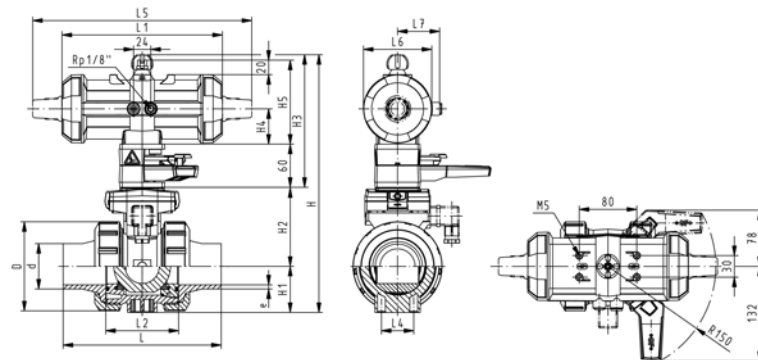
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	199 231 623	199 231 633	1.500
25	20	10	350	199 231 624	199 231 634	1.600
32	25	10	700	199 231 625	199 231 635	1.700
40	32	10	1000	199 231 626	199 231 636	2.800
50	40	10	1600	199 231 627	199 231 637	3.100
63	50	10	3100	199 231 628	199 231 638	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56		25	261	76	48
25	50	159	27	62	168	40	77	143	194	56	130	25	261	76	48
32	58	168	30	71	168	40	77	150	194	65	150	25	261	76	48
40	68	168	36	71	168	40	77	171	194	71	160	25	261	76	48
50	84	202	44	84	187	51	99	191	224	85	180	45	305	95	59
63	97	202	51	84	187	51	99	220	224	89	200	45	305	95	59

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8





DN10/15 - 50

PROGEF Standard Ball valve type 231 FC (Fail safe to close) With manual override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

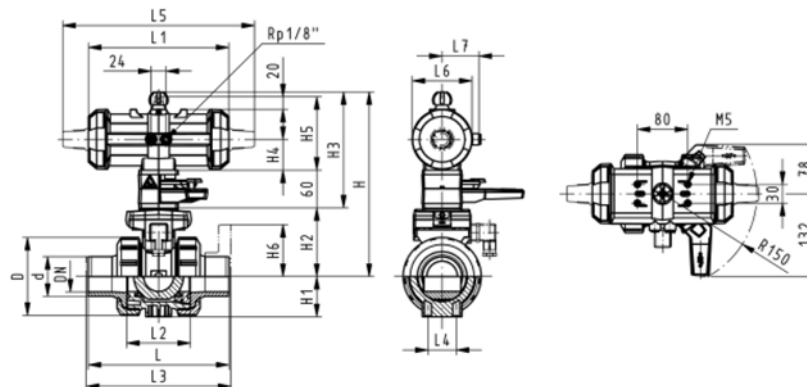
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 231 243	199 231 253	1.700
25	20	¾	10	350	199 231 244	199 231 254	1.900
32	25	1	10	700	199 231 245	199 231 255	2.100
40	32	1 ¼	10	1000	199 231 246	199 231 256	3.400
50	40	1 ½	10	1600	199 231 247	199 231 257	3.900
63	50	2	10	3100	199 231 248	199 231 258	4.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

PROGEF Standard Ball valve type 231 FO (Fail safe to open) With manual override With fusion sockets metric

Model:

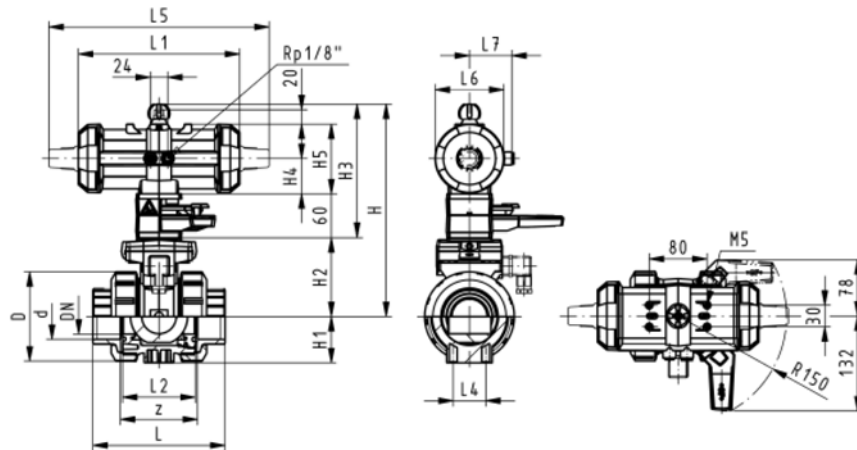
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time $90^\circ <$ 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 042	199 231 052	1.500
20	15	10	185	199 231 043	199 231 053	1.500
25	20	10	350	199 231 044	199 231 054	1.600
32	25	10	700	199 231 045	199 231 055	1.700
40	32	10	1000	199 231 046	199 231 056	2.800
50	40	10	1600	199 231 047	199 231 057	3.100
63	50	10	3100	199 231 048	199 231 058	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117





DN10/15 - 50

PROGEF Standard Ball valve type 231 FO (Fail safe to open) With manual override With socket fusion spigots metric

Model:

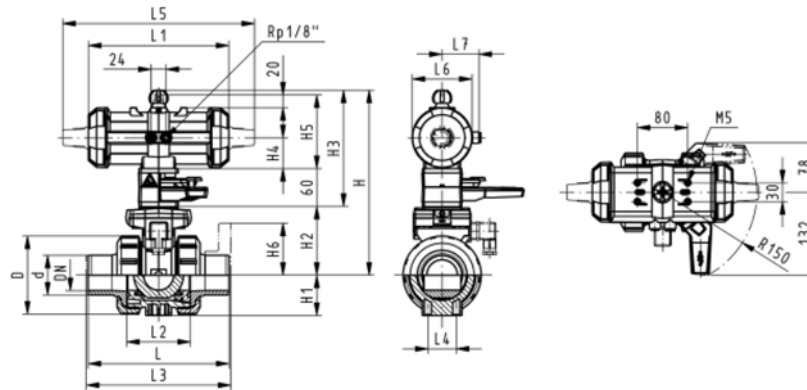
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 062	199 231 072	1.500
20	15	10	185	199 231 063	199 231 073	1.500
25	20	10	350	199 231 064	199 231 074	1.600
32	25	10	700	199 231 065	199 231 075	1.700
40	32	10	1000	199 231 066	199 231 076	2.800
50	40	10	1600	199 231 067	199 231 077	3.100
63	50	10	3100	199 231 068	199 231 078	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	110	194	56	130	25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59





DN10/15 - 50

PROGEF Standard

Ball valve type 231 FO (Fail safe to open)

With manual override

With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

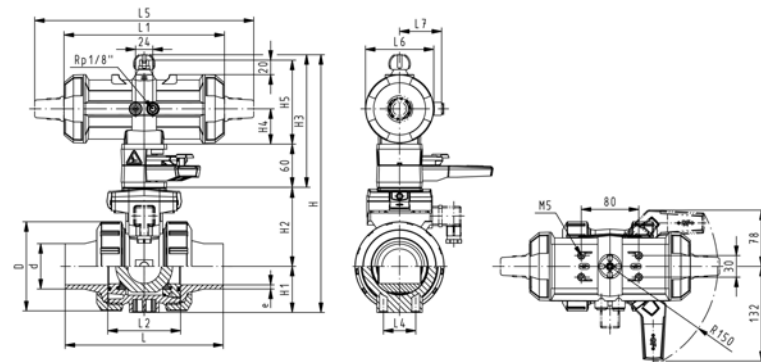
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	199 231 643	199 231 653	1.500
25	20	10	350	199 231 644	199 231 654	1.600
32	25	10	700	199 231 645	199 231 655	1.700
40	32	10	1000	199 231 646	199 231 656	2.800
50	40	10	1600	199 231 647	199 231 657	3.100
63	50	10	3100	199 231 648	199 231 658	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	143	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	171	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	191	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8





DN10/15 - 50

PROGEF Standard Ball valve type 231 FO (Fail safe to open) With manual override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

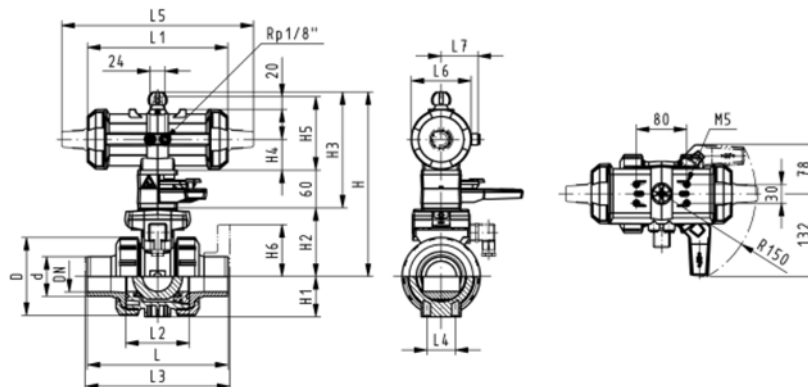
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 231 263	199 231 273	1.700
25	20	¾	10	350	199 231 264	199 231 274	1.900
32	25	1	10	700	199 231 265	199 231 275	2.100
40	32	1 ¼	10	1000	199 231 266	199 231 276	3.400
50	40	1 ½	10	1600	199 231 267	199 231 277	3.900
63	50	2	10	3100	199 231 268	199 231 278	4.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	58	159	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With fusion sockets metric

Model:

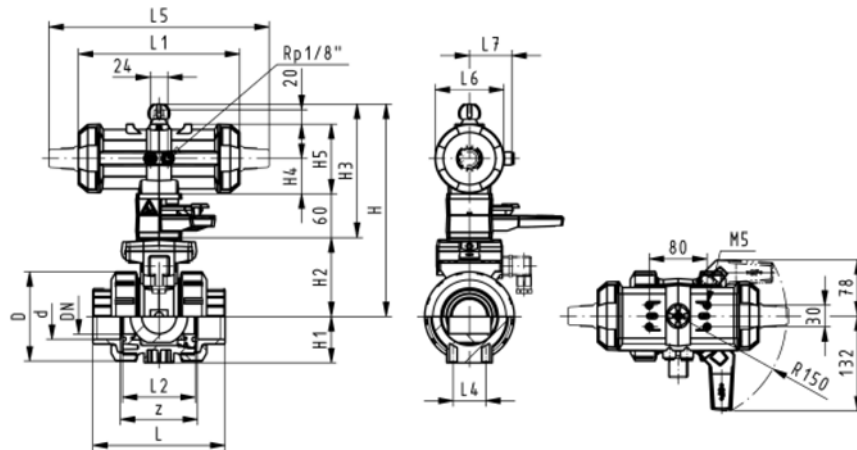
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time $90^\circ <$ 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 082	199 231 092	1.500
20	15	10	185	199 231 083	199 231 093	1.500
25	20	10	350	199 231 084	199 231 094	1.600
32	25	10	700	199 231 085	199 231 095	1.700
40	32	10	1000	199 231 086	199 231 096	2.800
50	40	10	1600	199 231 087	199 231 097	3.100
63	50	10	3100	199 231 088	199 231 098	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	168	40	77	93	194	56	25	261	76	48	67
20	50	159	27	62	168	40	77	95	194	56	25	261	76	48	66
25	58	168	30	71	168	40	77	108	194	65	25	261	76	48	77
32	68	168	36	71	168	40	77	118	194	71	25	261	76	48	83
40	84	202	44	84	187	51	99	137	224	85	45	305	95	59	99
50	97	202	51	84	187	51	99	147	224	89	45	305	95	59	105
63	124	225	64	106	187	51	99	168	224	101	45	305	95	59	117





DN10/15 - 50

PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With socket fusion spigots metric

Model:

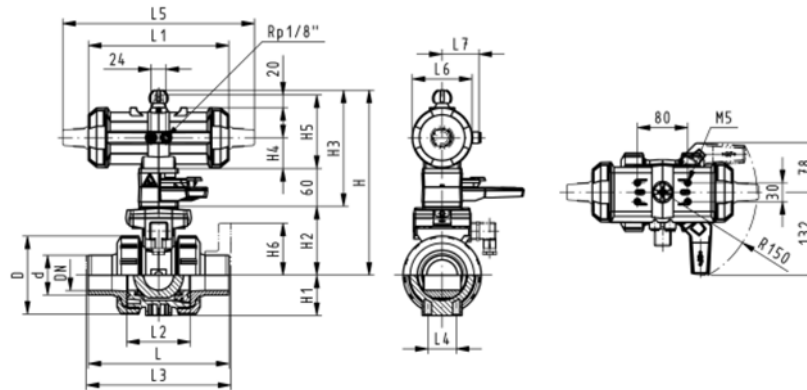
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 102	199 231 112	1.500
20	15	10	185	199 231 103	199 231 113	1.500
25	20	10	350	199 231 104	199 231 114	1.600
32	25	10	700	199 231 105	199 231 115	1.700
40	32	10	1000	199 231 106	199 231 116	2.800
50	40	10	1600	199 231 107	199 231 117	3.100
63	50	10	3100	199 231 108	199 231 118	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	168	40	77	110	194	56		25	261	76	48
20	50	159	27	62	168	40	77	120	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	139	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	170	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	190	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59





DN10/15 - 50

PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time $90^\circ <$ 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

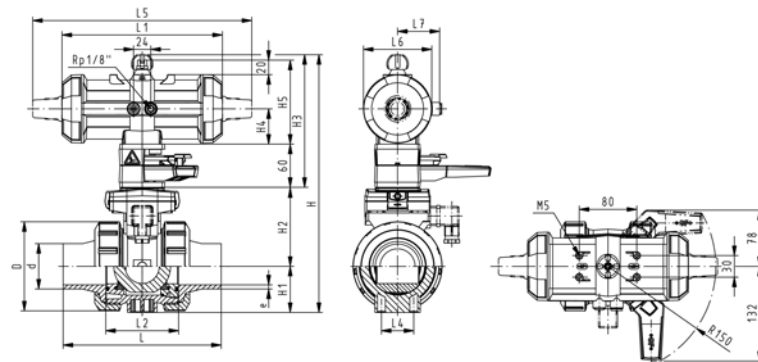
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	199 231 663	199 231 673	1.500
25	20	10	350	199 231 664	199 231 674	1.600
32	25	10	700	199 231 665	199 231 675	1.700
40	32	10	1000	199 231 666	199 231 676	2.800
50	40	10	1600	199 231 667	199 231 677	3.100
63	50	10	3100	199 231 668	199 231 678	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	168	40	77	130	194	56	130	25	261	76	48
25	58	168	30	71	168	40	77	143	194	65	150	25	261	76	48
32	68	168	36	71	168	40	77	150	194	71	160	25	261	76	48
40	84	202	44	84	187	51	99	171	224	85	180	45	305	95	59
50	97	202	51	84	187	51	99	191	224	89	200	45	305	95	59
63	124	225	64	106	187	51	99	220	224	101	230	45	305	95	59

d [mm]	e [mm]
20	1.9
25	2.3
32	3.0
40	3.7
50	4.6
63	5.8





DN10/15 - 50

PROGEF Standard Ball valve type 231 DA (Double acting) With manual override With fixed flanges PP-H serrated metric

Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°< 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

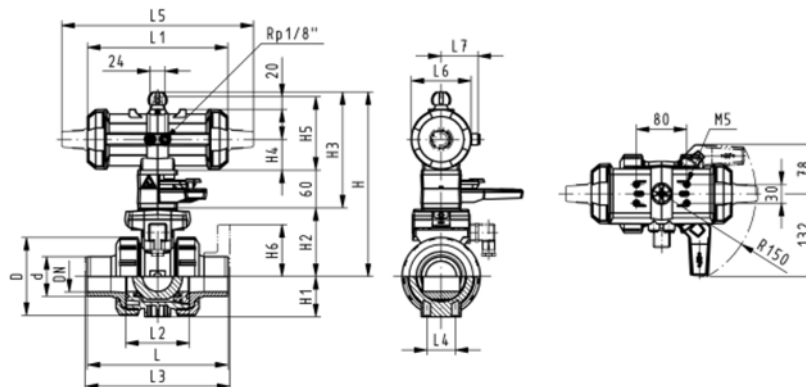
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 231 283	199 231 293	1.700
25	20	¾	10	350	199 231 284	199 231 294	1.900
32	25	1	10	700	199 231 285	199 231 295	2.100
40	32	1 ¼	10	1000	199 231 286	199 231 296	3.400
50	40	1 ½	10	1600	199 231 287	199 231 297	3.900
63	50	2	10	3100	199 231 288	199 231 298	4.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	27	62	168	40	77	48	120	194	56	130	25	261	76
25	58	168	30	71	168	40	77	53	139	194	65	150	25	261	76
32	68	168	36	71	168	40	77	58	150	194	71	160	25	261	76
40	84	202	44	84	187	51	99	70	170	224	85	180	45	305	95
50	97	202	51	84	187	51	99	75	190	224	89	200	45	305	95
63	124	225	64	106	187	51	99	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50



PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With fusion sockets metric

Model:

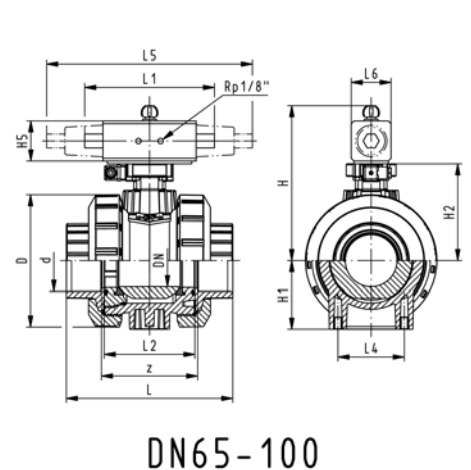
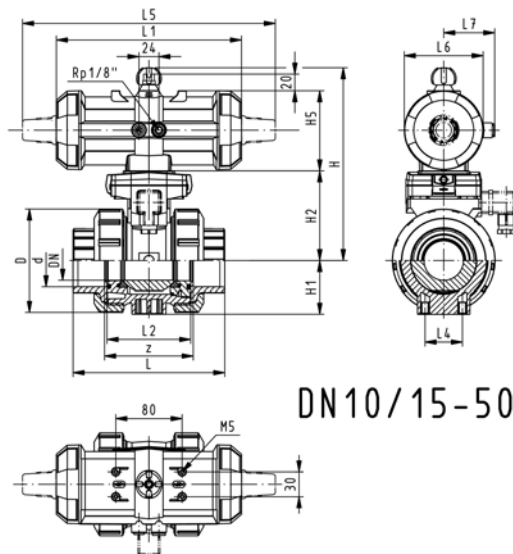
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

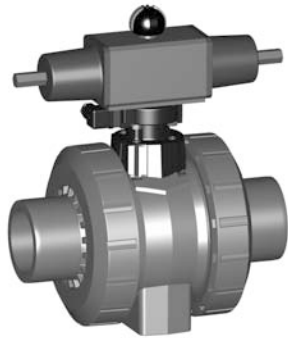
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 122	199 231 132	1.200
20	15	10	185	199 231 123	199 231 133	1.200
25	20	10	350	199 231 124	199 231 134	1.300
32	25	10	700	199 231 125	199 231 135	1.400
40	32	10	1000	199 231 126	199 231 136	2.500
50	40	10	1600	199 231 127	199 231 137	2.800
63	50	10	3100	199 231 128	199 231 138	3.700
75	65	10	5000	199 231 129	199 231 139	6.600
90	80	10	7000	199 231 130	199 231 140	8.400
110	100	10	11000	199 231 131	199 231 141	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	93	194	56	25	261	76	48	67
20	50	159	27	62	77	95	194	56	25	261	76	48	66
25	58	168	30	71	77	108	194	65	25	261	76	48	77
32	68	168	36	71	77	118	194	71	25	261	76	48	83
40	84	202	44	84	99	137	224	85	45	305	95	59	99
50	97	202	51	84	99	147	224	89	45	305	95	59	105
63	124	225	64	106	99	168	224	101	45	305	95	59	117
75	166	262	85	156	70	233		136	70	276	65		167
90	200	281	105	168	78	254		141	70	341	72		180
110	238	292	123	175	86	301		164	120	369	80		215





DN10/15 - 50



PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With socket fusion spigots metric

Model:

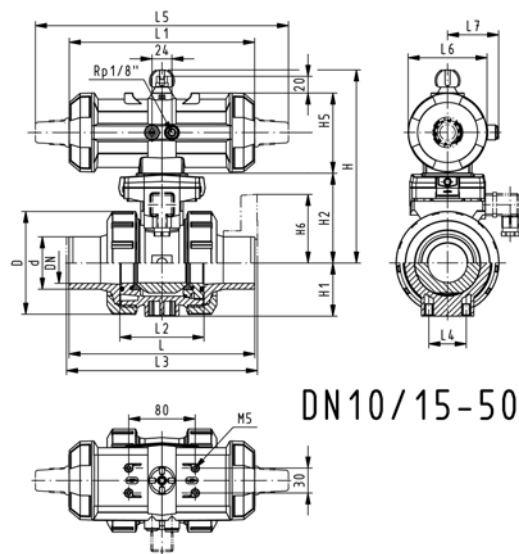
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

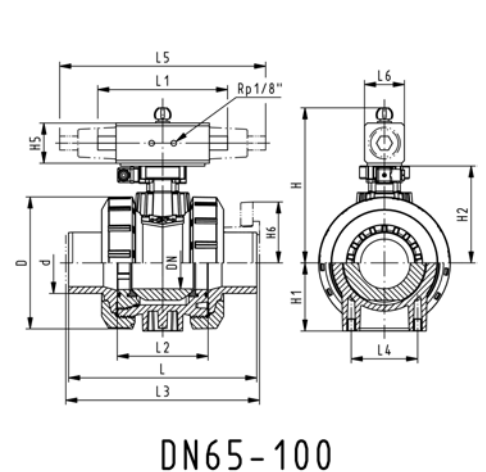
- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 142	199 231 152	1.200
20	15	10	185	199 231 143	199 231 153	1.200
25	20	10	350	199 231 144	199 231 154	1.300
32	25	10	700	199 231 145	199 231 155	1.400
40	32	10	1000	199 231 146	199 231 156	2.500
50	40	10	1600	199 231 147	199 231 157	2.800
63	50	10	3100	199 231 148	199 231 158	3.700
75	65	10	5000	199 231 149	199 231 159	6.600
90	80	10	7000	199 231 150	199 231 160	8.400
110	100	10	11000	199 231 151	199 231 161	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	110	194	56	130	25	261	76	48
20	50	159	27	62	77	120	194	56	130	25	261	76	48
25	58	168	30	71	77	139	194	65	150	25	261	76	48
32	68	168	36	71	77	150	194	71	160	25	261	76	48
40	84	202	44	84	99	170	224	85	180	45	305	95	59
50	97	202	51	84	99	190	224	89	200	45	305	95	59
63	124	225	64	106	99	220	224	101	230	45	305	95	59
75	166	262	85	156	70	280		136	290	70	276	65	
90	200	281	105	168	78	296		141	310	70	341	72	
110	238	292	123	175	86	336		164	350	120	369	80	



DN10/15-50



DN65-100



DN10/15 - 50

PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With fixed flanges PP-H serrated metric

Model:

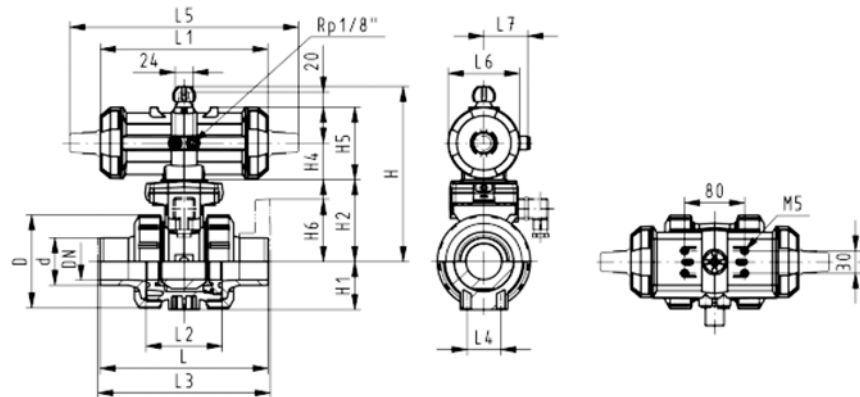
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 231 423	199 231 433	1.400
25	20	¾	10	350	199 231 424	199 231 434	1.600
32	25	1	10	700	199 231 425	199 231 435	1.800
40	32	1 ¼	10	1000	199 231 426	199 231 436	3.100
50	40	1 ½	10	1600	199 231 427	199 231 437	3.600
63	50	2	10	3100	199 231 428	199 231 438	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





PROGEF Standard Ball valve type 231 FC (Fail safe to close) Without manual override With backing flanges PP-st metric

Model:

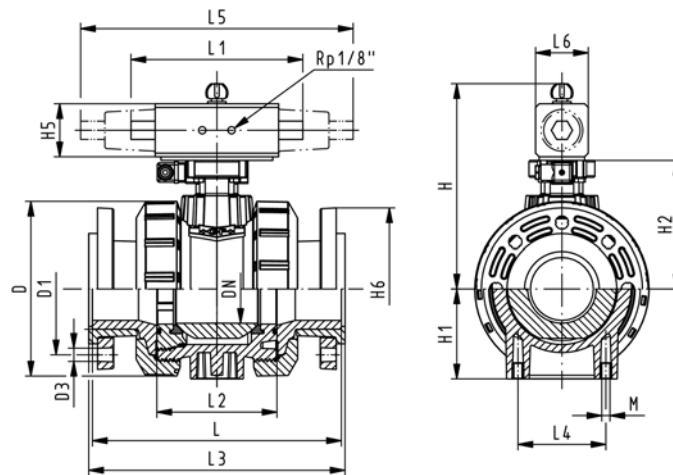
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 231 329	199 231 339	10.900
90	80	3	10	7000	199 231 330	199 231 340	13.600
110	100	4	10	11000	199 231 331	199 231 341	19.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80





DN10/15 - 50



PROGEF Standard

Ball valve type 231 FC (Fail safe to close)

Without manual override

With butt fusion spigots IR-Plus SDR11 metric

Model:

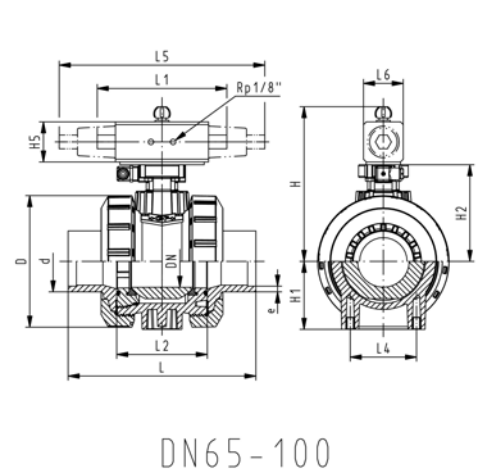
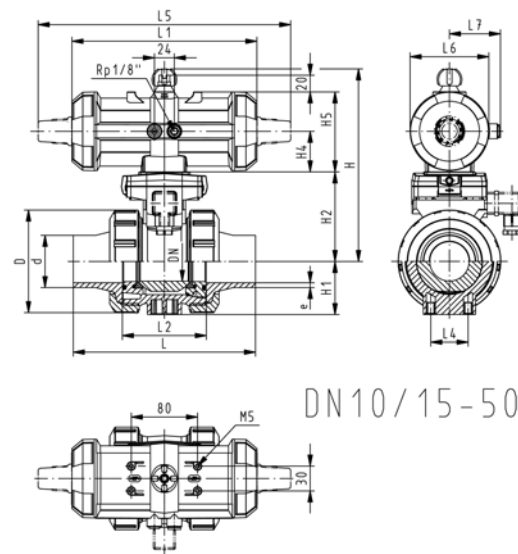
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 231 839	199 231 849	6.600
90	80	10	7000	199 231 840	199 231 850	8.400
110	100	10	11000	199 231 841	199 231 851	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	270.0	136	290	70	276	65	8.2
90	200	281	105	168	78	264	270.0	141	310	70	341	72	9.9
110	238	292	123	175	86	301	320.0	164	350	120	369	80	12.0





PROGEF Standard
Ball valve type 231 FC (Fail safe to close)
Without manual override
With butt fusion spigots SDR17.6 metric

Model:

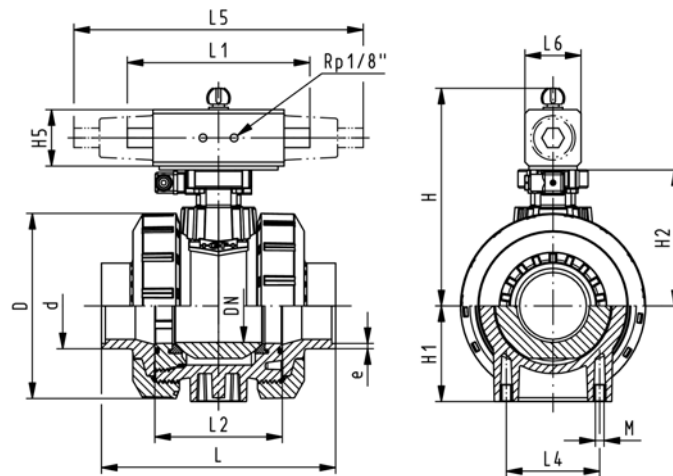
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 231 939	199 231 949	6.600
90	80	10	7000	199 231 940	199 231 950	8.400
110	100	10	11000	199 231 941	199 231 951	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	136	290	70	276	65	4.6
90	200	281	105	168	78	264	141	310	70	341	72	5.5
110	238	292	123	175	86	301	164	350	120	369	80	6.7





DN10/15 - 50



PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With fusion sockets metric

Model:

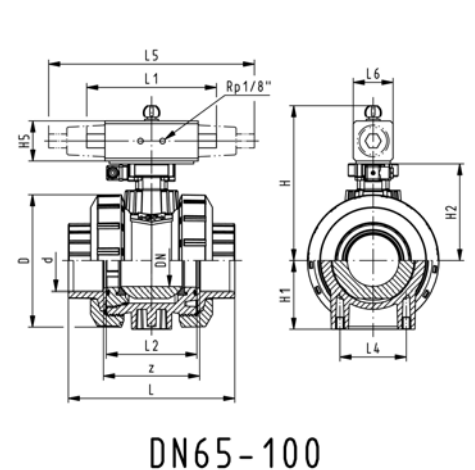
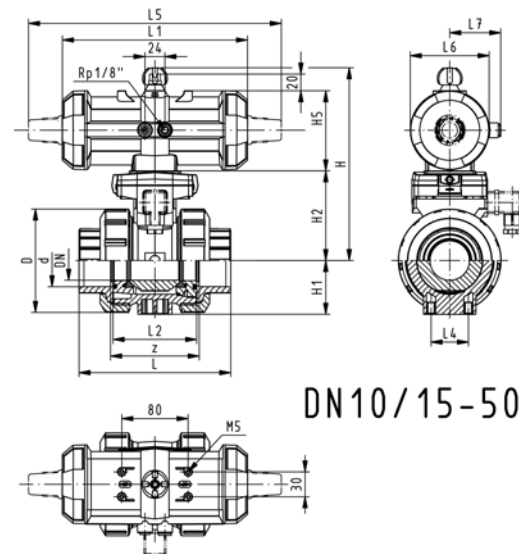
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

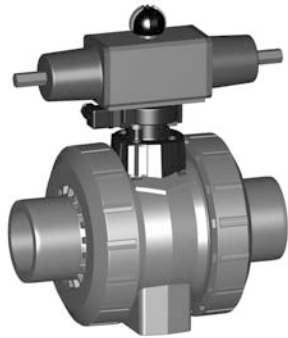
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 162	199 231 172	1.200
20	15	10	185	199 231 163	199 231 173	1.200
25	20	10	350	199 231 164	199 231 174	1.300
32	25	10	700	199 231 165	199 231 175	1.400
40	32	10	1000	199 231 166	199 231 176	2.500
50	40	10	1600	199 231 167	199 231 177	2.800
63	50	10	3100	199 231 168	199 231 178	3.700
75	65	10	5000	199 231 169	199 231 179	6.600
90	80	10	7000	199 231 170	199 231 180	8.400
110	100	10	11000	199 231 171	199 231 181	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	93	194	56	25	261	76	48	66
20	50	159	27	62	77	95	194	56	25	261	76	48	67
25	58	168	30	71	77	108	194	65	25	261	76	48	77
32	68	168	36	71	77	118	194	71	25	261	76	48	83
40	84	202	44	84	99	137	224	85	45	305	95	59	99
50	97	202	51	84	99	147	224	89	45	305	95	59	105
63	124	225	64	106	99	168	224	101	45	305	95	59	117
75	166	262	85	156	70	233		136	70	276	65		167
90	200	281	105	168	78	254		141	70	341	72		180
110	238	292	123	175	86	301		164	120	369	80		215





DN10/15 - 50



PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With socket fusion spigots metric

Model:

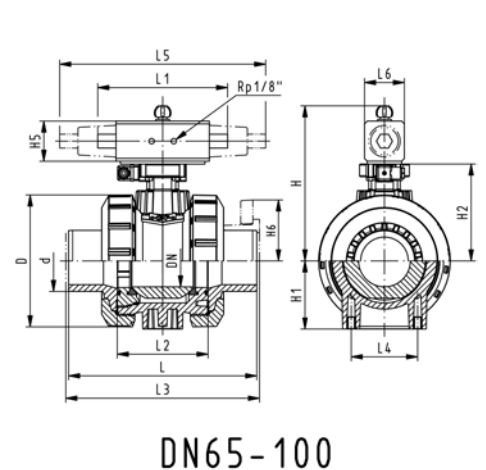
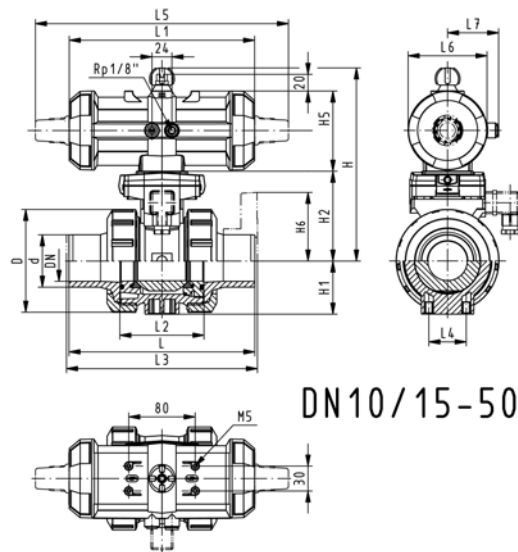
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 182	199 231 192	1.200
20	15	10	185	199 231 183	199 231 193	1.200
25	20	10	350	199 231 184	199 231 194	1.300
32	25	10	700	199 231 185	199 231 195	1.400
40	32	10	1000	199 231 186	199 231 196	2.500
50	40	10	1600	199 231 187	199 231 197	2.800
63	50	10	3100	199 231 188	199 231 198	3.700
75	65	10	5000	199 231 189	199 231 199	6.600
90	80	10	7000	199 231 190	199 231 200	8.400
110	100	10	11000	199 231 191	199 231 201	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	110	194	56	130	25	261	76	48
20	50	159	27	62	77	120	194	56	130	25	261	76	48
25	58	168	30	71	77	139	194	65	150	25	261	76	48
32	68	168	36	71	77	150	194	71	160	25	261	76	48
40	84	202	44	84	99	170	224	85	180	45	305	95	59
50	97	202	51	84	99	190	224	89	200	45	305	95	59
63	124	225	64	106	99	220	224	101	230	45	305	95	59
75	166	262	85	156	70	280		136	290	70	276	65	
90	200	281	105	168	78	296		141	310	70	341	72	
110	238	292	123	175	86	336		164	350	120	369	80	





DN10/15 - 50

PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With fixed flanges PP-H serrated metric

Model:

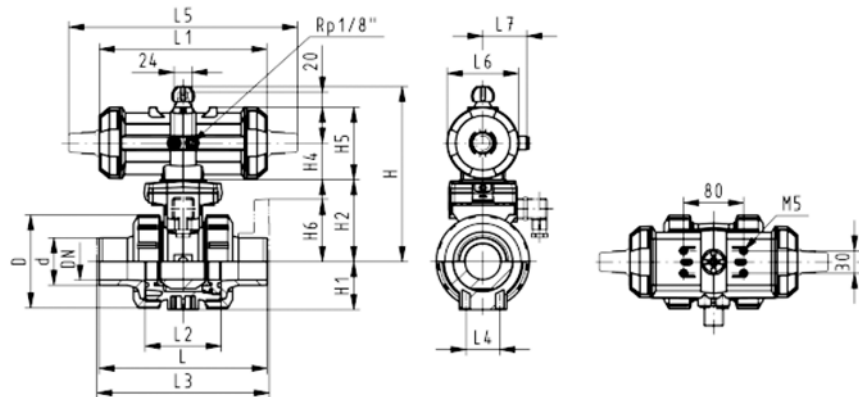
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 231 443	199 231 453	1.400
25	20	¾	10	350	199 231 444	199 231 454	1.600
32	25	1	10	700	199 231 445	199 231 455	1.800
40	32	1 ¼	10	1000	199 231 446	199 231 456	3.100
50	40	1 ½	10	1600	199 231 447	199 231 457	3.600
63	50	2	10	3100	199 231 448	199 231 458	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With backing flanges PP-st metric

Model:

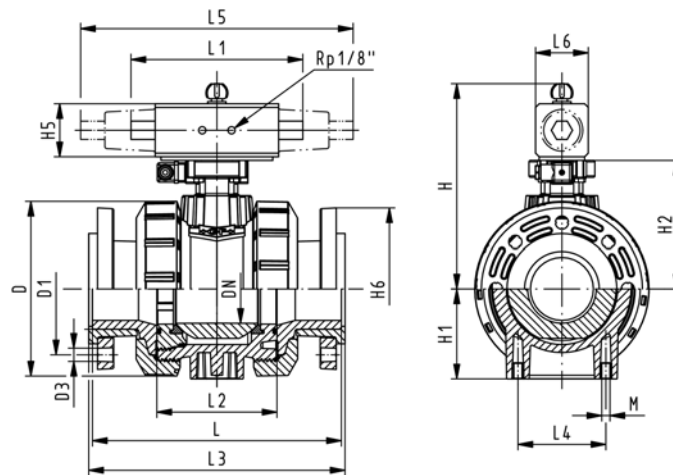
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve (see diagram)

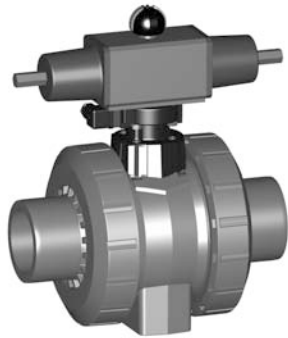
d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 231 349	199 231 359	10.900
90	80	3	10	7000	199 231 350	199 231 360	13.600
110	100	4	10	11000	199 231 351	199 231 361	19.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	136	290	70	276	65
90	200	281	105	168	78	100	296	141	310	70	341	72
110	238	292	123	175	86	110	336	164	350	120	369	80





DN10/15 - 50



PROGEF Standard Ball valve type 231 FO (Fail safe to open) Without manual override With butt fusion spigots IR-Plus SDR11 metric

Model:

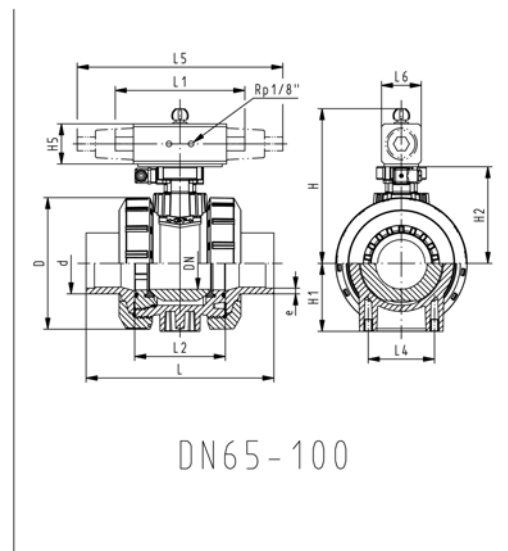
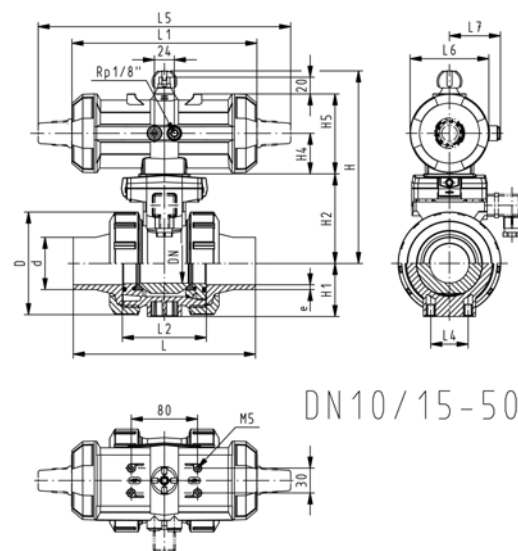
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	199 231 853	199 231 863	1.200
25	20	10	350	199 231 854	199 231 864	1.300
32	25	10	700	199 231 855	199 231 865	1.400
40	32	10	1000	199 231 856	199 231 866	2.500
50	40	10	1600	199 231 857	199 231 867	2.800
63	50	10	3100	199 231 858	199 231 868	3.700
75	65	10	5000	199 231 859	199 231 869	6.600
90	80	10	7000	199 231 860	199 231 870	8.400
110	100	10	11000	199 231 861	199 231 871	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
20	50	159	27	62	77	120	194	56	130	25	261	76	1.9
25	58	168	30	71	77	139	194	65	150	25	261	76	2.3
32	68	168	36	71	77	150	194	71	160	25	261	76	3.0
40	84	202	44	84	99	170	224	85	180	45	305	95	3.7
50	97	202	51	84	99	190	224	89	200	45	305	95	4.6
63	124	225	64	106	99	220	224	101	230	45	305	95	5.8
75	166	262	85	156	70	266	218	136	290	70	276	65	8.2
90	200	281	105	168	78	264	259	141	310	70	341	72	9.9
110	238	292	123	175	86	301	287	164	350	120	369	80	12.0





PROGEF Standard
Ball valve type 231 FO (Fail safe to open)
Without manual override
With butt fusion spigots SDR17.6 metric

Model:

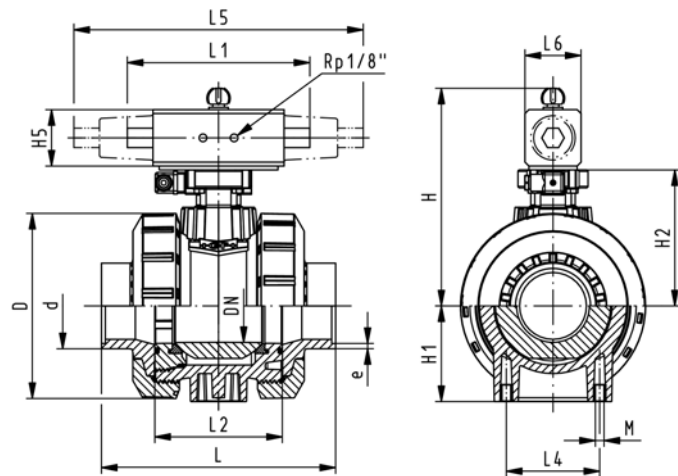
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA40 (DN80), PA40 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 231 959	199 231 969	6.600
90	80	10	7000	199 231 960	199 231 970	8.400
110	100	10	11000	199 231 961	199 231 971	12.600

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	136	290	70	276	65	4.6
90	200	281	105	168	78	264	141	310	70	341	72	5.5
110	238	292	123	175	86	301	164	350	120	369	80	6.7





DN10/15 - 50



PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With fusion sockets metric

Model:

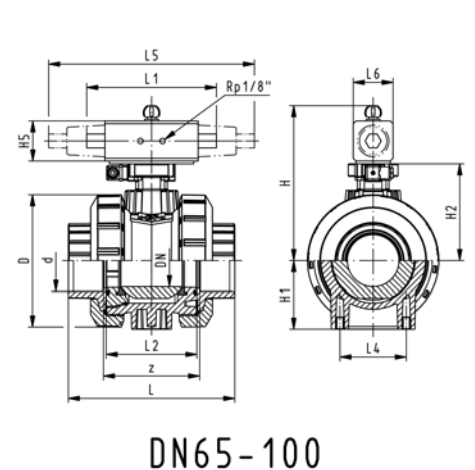
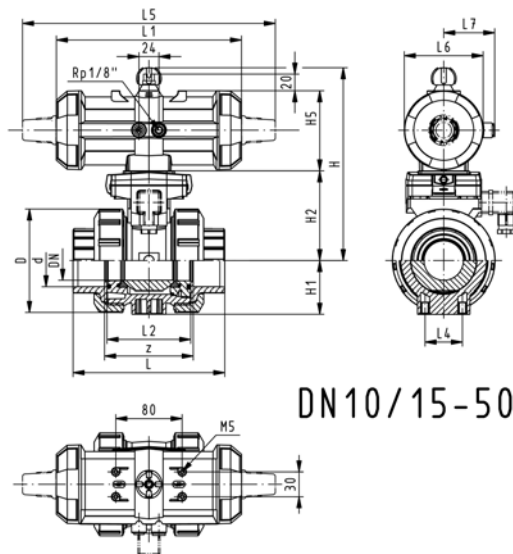
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 202	199 231 212	1.200
20	15	10	185	199 231 203	199 231 213	1.200
25	20	10	350	199 231 204	199 231 214	1.300
32	25	10	700	199 231 205	199 231 215	1.400
40	32	10	1000	199 231 206	199 231 216	2.500
50	40	10	1600	199 231 207	199 231 217	2.800
63	50	10	3100	199 231 208	199 231 218	3.700
75	65	10	5000	199 231 209	199 231 219	5.400
90	80	10	7000	199 231 210	199 231 220	7.700
110	100	10	11000	199 231 211	199 231 221	10.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	159	27	62	77	93	194	56	25	261	76	48	66
20	50	159	27	62	77	95	194	56	25	261	76	48	67
25	58	168	30	71	77	108	194	65	25	261	76	48	77
32	68	168	36	71	77	118	194	71	25	261	76	48	83
40	84	202	44	84	99	137	224	85	45	305	95	59	99
50	97	202	51	84	99	147	224	89	45	305	95	59	105
63	124	225	64	106	99	168	224	101	45	305	95	59	117
75	166	257	85	156	66	233	144	136	70		60		167
90	200	274	105	168	70	254	152	141	70		65		180
110	238	273	123	175	78	301	169	164	120		72		215





DN10/15 - 50



PROGEF Standard

Ball valve type 231 DA (Double acting)

Without manual override

With socket fusion spigots metric

Model:

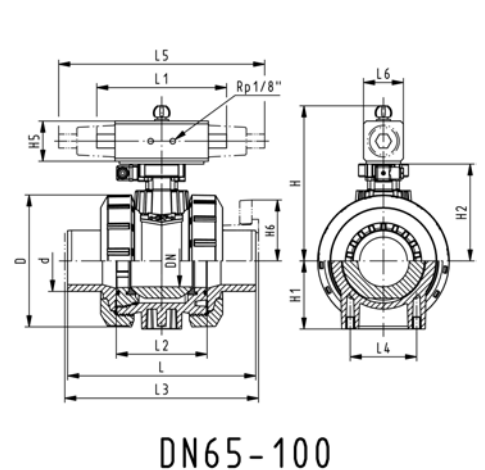
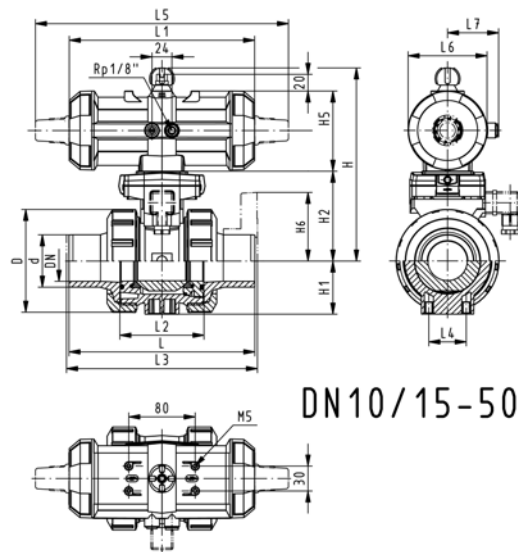
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°< 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 222	199 231 232	1.200
20	15	10	185	199 231 223	199 231 233	1.200
25	20	10	350	199 231 224	199 231 234	1.300
32	25	10	700	199 231 225	199 231 235	1.400
40	32	10	1000	199 231 226	199 231 236	2.500
50	40	10	1600	199 231 227	199 231 237	2.800
63	50	10	3100	199 231 228	199 231 238	3.700
75	65	10	5000	199 231 229	199 231 239	5.500
90	80	10	7000	199 231 230	199 231 240	7.800
110	100	10	11000	199 231 231	199 231 241	10.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	159	27	62	77	110	194	56	130	25	261	76	48
20	50	159	27	62	77	120	194	56	130	25	261	76	48
25	58	168	30	71	77	139	194	65	150	25	261	76	48
32	68	168	36	71	77	150	194	71	160	25	261	76	48
40	84	202	44	84	99	170	224	85	180	45	305	95	59
50	97	202	51	84	99	190	224	89	200	45	305	95	59
63	124	225	64	106	99	220	224	101	230	45	305	95	59
75	166	257	85	156	66	280	144	136	290	70		60	
90	200	274	105	168	70	296	152	141	310	70		65	
110	238	273	123	175	78	336	169	164	350	120		72	





DN10/15 - 50

PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With fixed flanges PP-H serrated metric

Model:

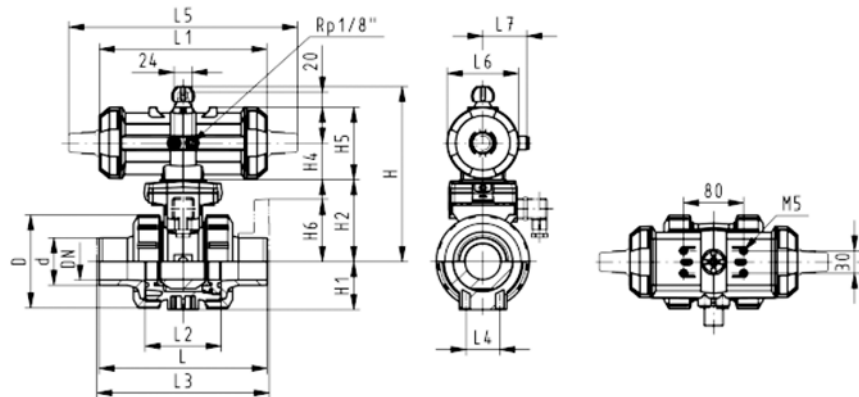
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Overall length according to EN 558
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	½	10	185	199 231 463	199 231 473	1.400
25	20	¾	10	350	199 231 464	199 231 474	1.600
32	25	1	10	700	199 231 465	199 231 475	1.800
40	32	1 ¼	10	1000	199 231 466	199 231 476	3.100
50	40	1 ½	10	1600	199 231 467	199 231 477	3.600
63	50	2	10	3100	199 231 468	199 231 478	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	159	27	62	40	77	48	120	194	56	130	25	261	76	48
25	58	168	30	71	40	77	53	140	194	65	150	25	261	76	48
32	68	168	36	71	40	77	58	150	194	71	160	25	261	76	48
40	84	202	44	84	51	99	70	170	224	85	180	45	305	95	59
50	97	202	51	84	51	99	75	190	224	89	200	45	305	95	59
63	124	225	64	106	51	99	83	220	224	101	230	45	305	95	59





PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With backing flanges PP-st metric

Model:

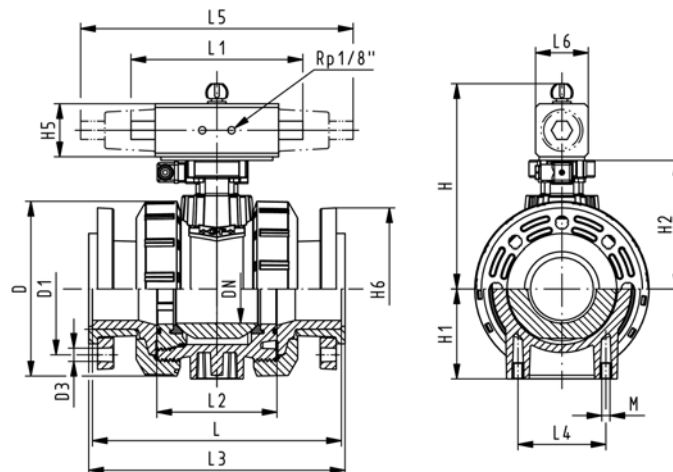
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

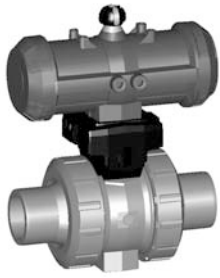
Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 ½	10	5000	199 231 369	199 231 379	9.700
90	80	3	10	7000	199 231 370	199 231 380	13.000
110	100	4	10	11000	199 231 371	199 231 381	18.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]
75	166	257	85	156	66	93	280	144	136	290	70	60
90	200	274	105	168	70	100	296	152	141	310	70	65
110	238	273	123	175	78	110	336	169	164	350	120	72





DN10/15 - 50



PROGEF Standard Ball valve type 231 DA (Double acting) Without manual override With butt fusion spigots IR-Plus SDR11 metric

Model:

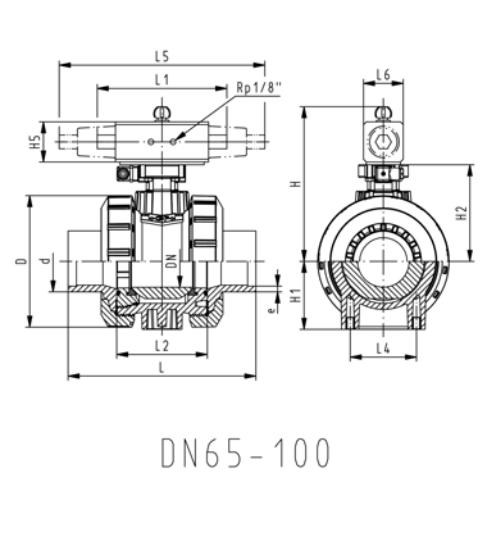
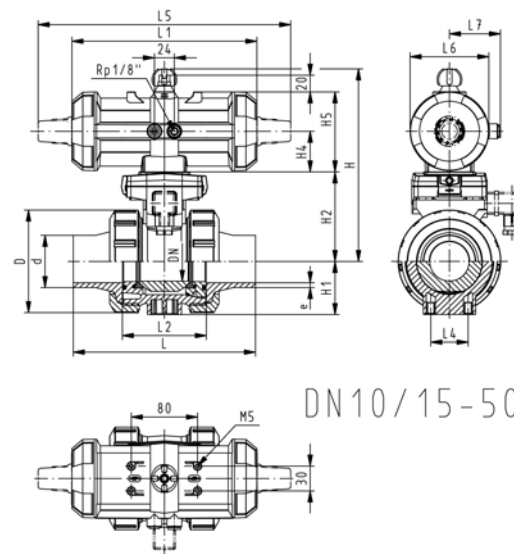
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time $90^\circ <$ 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 231 879	199 231 889	5.500
90	80	10	7000	199 231 880	199 231 890	7.800
110	100	10	11000	199 231 881	199 231 891	10.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]	e [mm]
75	166	257	85	156	66	266	144	136	290	70	60	8.2
90	200	274	105	168	70	264	152	141	310	70	65	9.9
110	238	273	123	175	78	301	169	164	350	120	72	12.0





PROGEF Standard
Ball valve type 231 DA (Double acting)
Without manual override
With butt fusion spigots SDR17.6 metric

Model:

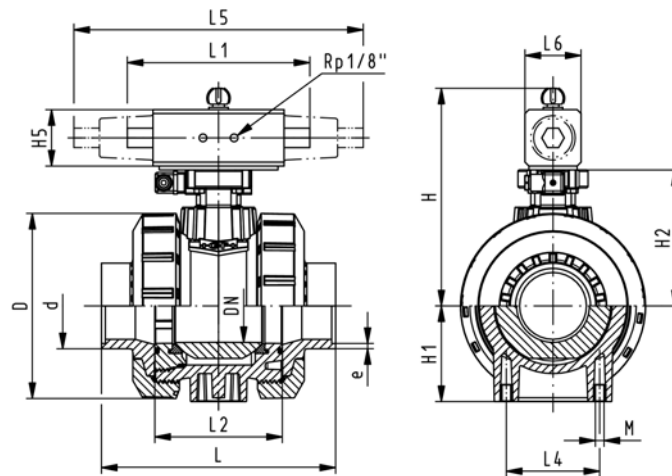
- Material: PP-H
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90°<) 1-2 s
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	199 231 979	199 231 989	5.500
90	80	10	7000	199 231 980	199 231 990	7.800
110	100	10	11000	199 231 981	199 231 991	10.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L6 [mm]	e [mm]
75	166	257	85	156	66	266	144	136	290	70	60	4.6
90	200	274	105	168	70	264	152	141	310	70	65	5.5
110	238	273	123	175	78	301	169	164	350	120	72	6.7





PROGEF Standard
3-Way ball valve type 276
Horizontal/L-port DA (Double acting)
Without manual override
With socket fusion spigots

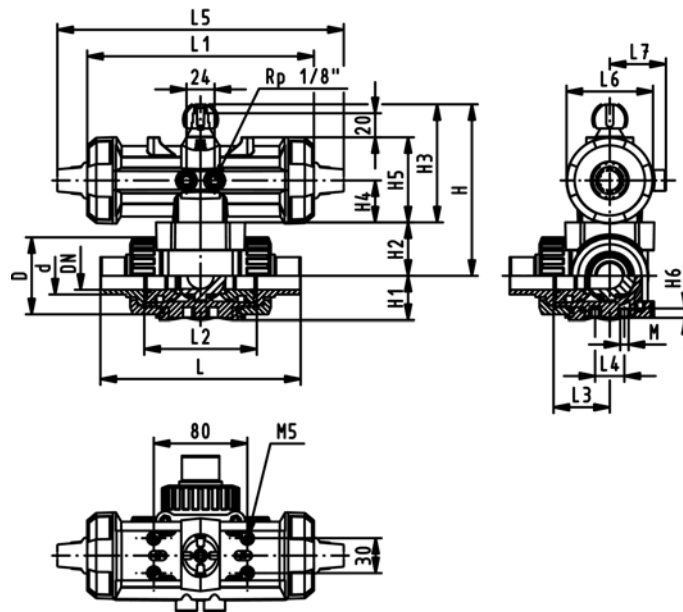
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	75	199 276 162	199 276 172	0.010
20	15	10	75	199 276 163	199 276 173	0.010
25	20	10	150	199 276 164	199 276 174	0.010
32	25	10	280	199 276 165	199 276 175	0.010
40	32	10	480	199 276 166	199 276 176	0.010
50	40	10	620	199 276 167	199 276 177	0.010
63	50	10	1230	199 276 168	199 276 178	0.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	46	128	29	31	97	40	77	8	108	194	70	36	25	261	73
20	46	128	29	31	97	40	77	8	133	194	70	36	25	261	73
25	56	136	33	39	97	40	77	8	155	194	86	43	25	261	73
32	67	141	38	44	97	40	77	8	170	194	96	48	25	261	73
40	82	169	44	50	119	51	99	9	201	224	114	58	45	305	94
50	98	181	50	63	119	51	99	9	236	224	137	69	45	305	94
63	121	195	61	76	119	51	99	9	286	224	179	90	45	305	94

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard
3-Way ball valve type 276
Horizontal/L-port DA (Double acting)
Without manual override
With threaded sockets Rp

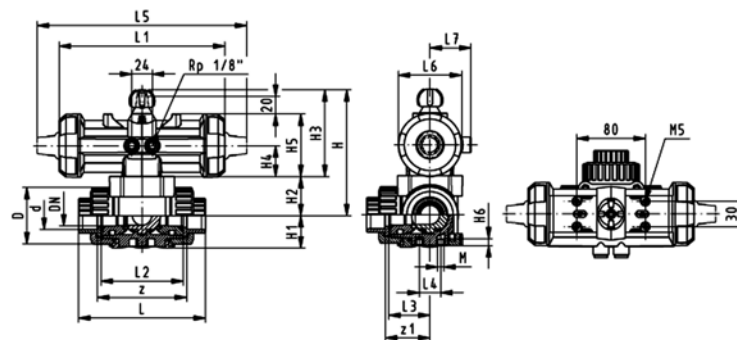
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 276 282	199 276 292	0.010
1/2	15	10	75	199 276 283	199 276 293	0.010
3/4	20	10	150	199 276 284	199 276 294	0.010
1	25	10	280	199 276 285	199 276 295	0.010
1 1/4	32	10	480	199 276 286	199 276 296	0.010
1 1/2	40	10	620	199 276 287	199 276 297	2.131
2	50	10	1230	199 276 288	199 276 298	0.010

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	46	128	29	31	97	40	77	8	108	194	70	36	25	261	73
1/2	46	128	29	31	97	40	77	8	111	194	70	36	25	261	73
3/4	56	136	33	39	97	40	77	8	131	194	86	43	25	261	73
1	67	141	38	44	97	40	77	8	148	194	96	48	25	261	73
1 1/4	82	169	44	50	119	51	99	9	177	224	114	58	45	305	94
1 1/2	98	181	50	63	119	51	99	9	205	224	137	69	45	305	94
2	121	195	61	76	119	51	99	9	261	224	179	90	45	305	94

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	78	39
1/2	48	6	79	40
3/4	48	6	95	48
1	48	6	108	54
1 1/4	59	8	133	67
1 1/2	59	8	155	78
2	59	8	203	102





PROGEF Standard
3-Way ball valve type 276
Horizontal/T-port
Without manual override
With socket fusion spigots

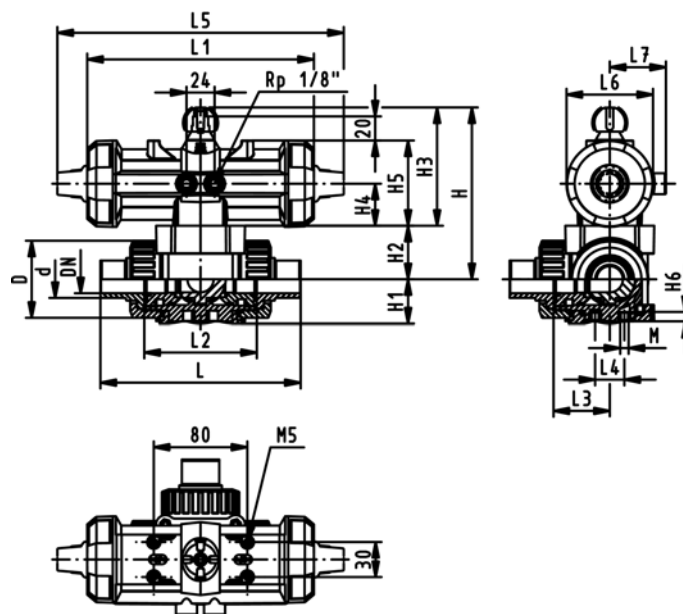
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Control time $90^\circ <$) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	200	199 276 042	199 276 052	0.010
20	15	10	200	199 276 043	199 276 053	0.010
25	20	10	470	199 276 044	199 276 054	0.010
32	25	10	793	199 276 045	199 276 055	0.010
40	32	10	1290	199 276 046	199 276 056	0.010
50	40	10	1910	199 276 047	199 276 057	0.010
63	50	10	3100	199 276 048	199 276 058	0.010

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	46	128	29	31	97	40	77	8	108	194	70	36	25	261	73
20	46	128	29	31	97	40	77	8	133	194	70	36	25	261	73
25	56	136	33	39	97	40	77	8	155	194	86	43	25	261	73
32	67	141	38	44	97	40	77	8	170	194	96	48	25	261	73
40	82	169	44	50	119	51	99	9	201	224	114	58	45	305	94
50	98	181	50	63	119	51	99	9	236	224	137	69	45	305	94
63	121	195	61	76	119	51	99	9	286	224	179	90	45	305	94

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard 3-Way ball valve type 276 Horizontal/T-port Without manual override With threaded sockets Rp

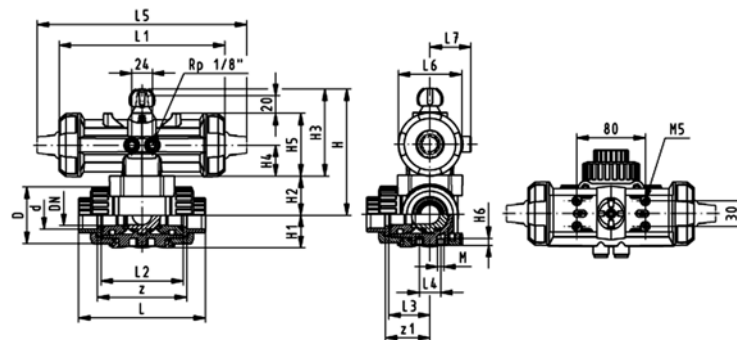
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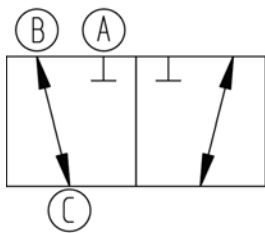
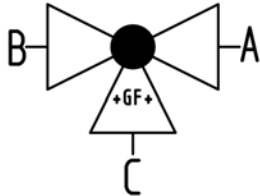
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 276 142	199 276 152	0.010
1/2	15	10	200	199 276 143	199 276 153	0.010
3/4	20	10	470	199 276 144	199 276 154	0.010
1	25	10	793	199 276 145	199 276 155	0.010
1 1/4	32	10	1290	199 276 146	199 276 156	0.010
1 1/2	40	10	1910	199 276 147	199 276 157	0.010
2	50	10	3100	199 276 148	199 276 158	0.010

Inch	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	46	128	29	31	97	40	77	8	108	194	70	36	25	261	73
1/2	46	128	29	31	97	40	77	8	111	194	70	36	25	261	73
3/4	56	136	33	39	97	40	77	8	131	194	86	43	25	261	73
1	67	141	38	44	97	40	77	8	148	194	96	48	25	261	73
1 1/4	82	169	44	50	119	51	99	9	177	224	114	58	45	305	94
1 1/2	98	181	50	63	119	51	99	9	205	224	137	69	45	305	94
2	121	195	61	76	119	51	99	9	261	224	179	90	45	305	94

Inch	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	78	39
1/2	48	6	79	40
3/4	48	6	95	48
1	48	6	108	54
1 1/4	59	8	133	67
1 1/2	59	8	155	78
2	59	8	203	102





PROGEF Standard 3-Way ball valve type 286 Horizontal/L-port Without manual override With fusion sockets metric



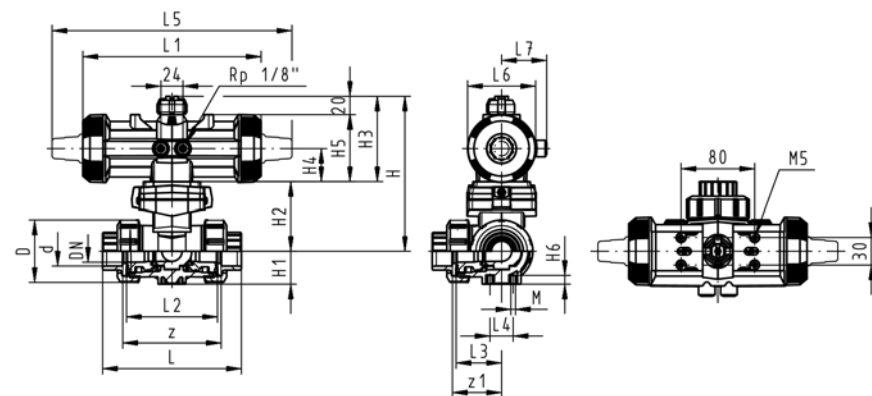
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 286 022	199 286 032	1.031
20	15	10	75	199 286 023	199 286 033	1.035
25	20	10	150	199 286 024	199 286 034	1.125
32	25	10	280	199 286 025	199 286 035	1.250
40	32	10	480	199 286 026	199 286 036	2.217
50	40	10	620	199 286 027	199 286 037	2.513
63	50	10	1230	199 286 028	199 286 038	3.420

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94





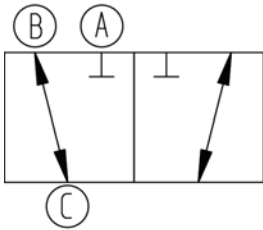
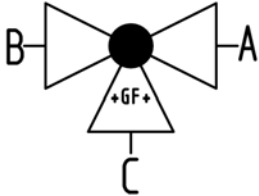
PROGEF Standard

3-Way ball valve type 286

Horizontal/L-port

Without manual override

With threaded sockets Rp reinforced



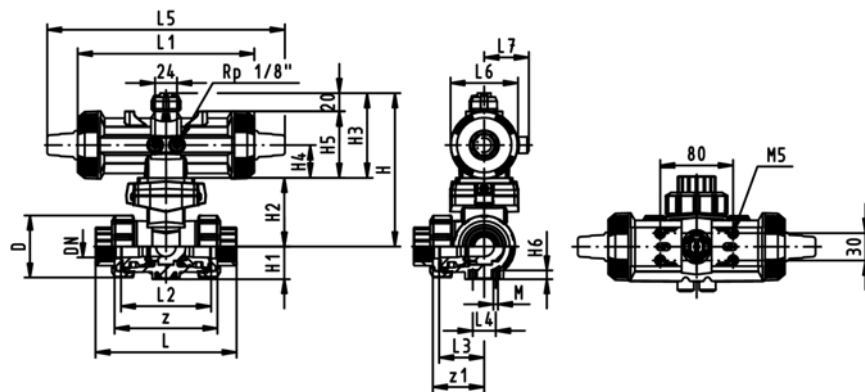
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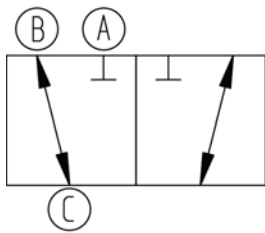
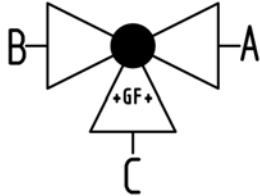
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 286 122	199 286 132	1.031
1/2	15	10	75	199 286 123	199 286 133	1.035
3/4	20	10	150	199 286 124	199 286 134	1.125
1	25	10	280	199 286 125	199 286 135	1.250
1 1/4	32	10	480	199 286 126	199 286 136	2.217
1 1/2	40	10	620	199 286 127	199 286 137	2.513
2	50	10	1230	199 286 128	199 286 138	3.420

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98





PROGEF Standard 3-Way ball valve type 286 Horizontal/L-port Without manual override With socket fusion spigots metric



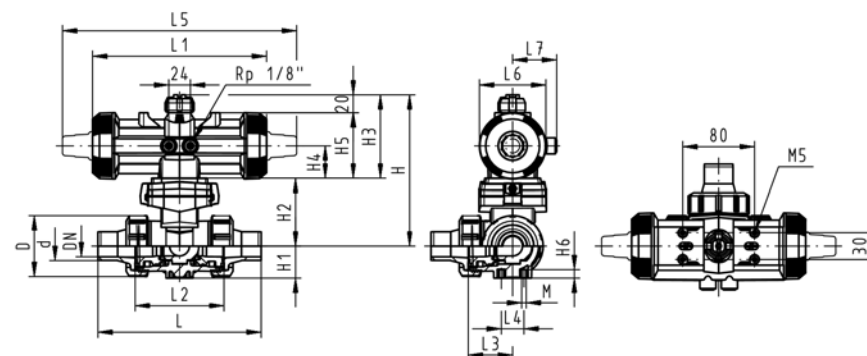
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time 90°(<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 286 002	199 286 012	1.035
20	15	10	75	199 286 003	199 286 013	1.041
25	20	10	150	199 286 004	199 286 014	1.135
32	25	10	280	199 286 005	199 286 015	1.265
40	32	10	480	199 286 006	199 286 016	2.231
50	40	10	620	199 286 007	199 286 017	2.554
63	50	10	1230	199 286 008	199 286 018	3.502

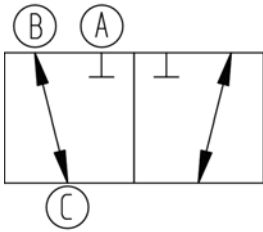
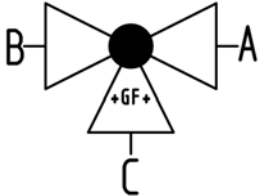
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard
3-Way ball valve type 286
Horizontal/L-port
Without manual override
With butt fusion spigots
IR-Plus SDR11 metric



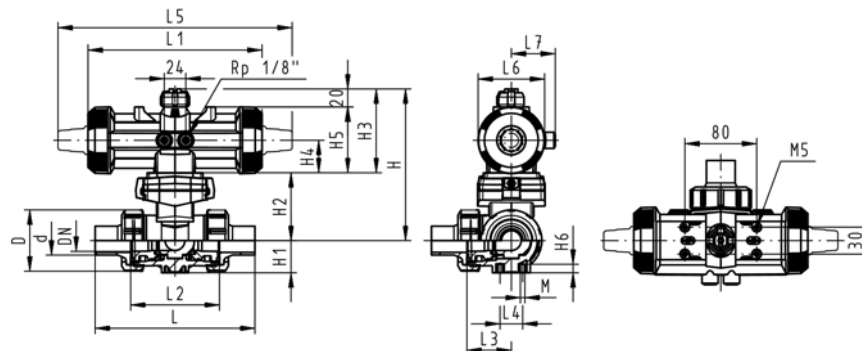
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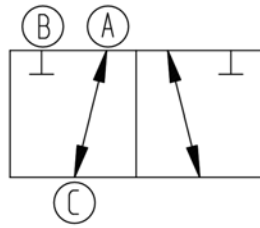
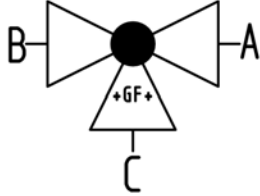
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	199 286 083	199 286 093	1.041
25	20	10	150	199 286 084	199 286 094	1.135
32	25	10	280	199 286 085	199 286 095	1.265
40	32	10	480	199 286 086	199 286 096	2.231
50	40	10	620	199 286 087	199 286 097	2.554
63	50	10	1230	199 286 088	199 286 098	3.502

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard

3-Way ball valve type 286

Horizontal/L-port DA (Double acting)

Without manual override

With fusion sockets metric



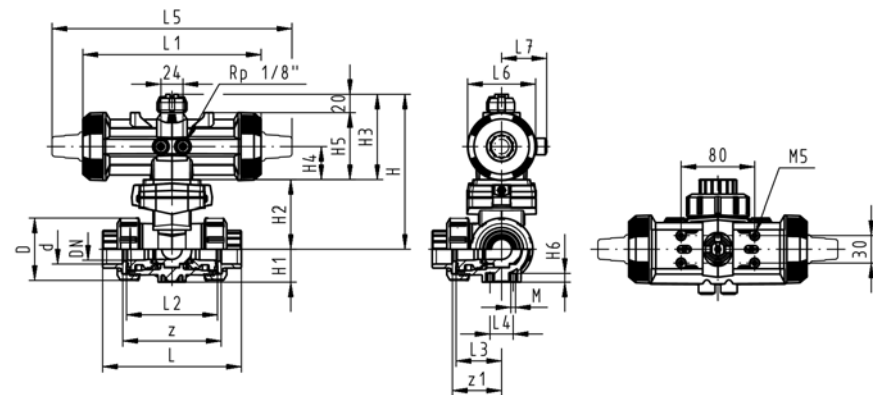
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 286 182	199 286 192	8.414
20	15	10	75	199 286 183	199 286 193	8.454
25	20	10	150	199 286 184	199 286 194	9.354
32	25	10	280	199 286 185	199 286 195	1.060
40	32	10	480	199 286 186	199 286 196	1.793
50	40	10	620	199 286 187	199 286 197	2.089
63	50	10	1230	199 286 188	199 286 198	2.996

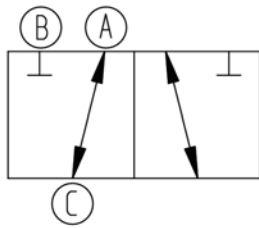
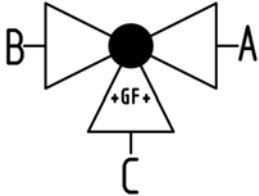
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94





PROGEF Standard 3-Way ball valve type 286 Horizontal/L-port DA (Double acting) Without manual override With threaded sockets Rp reinforced



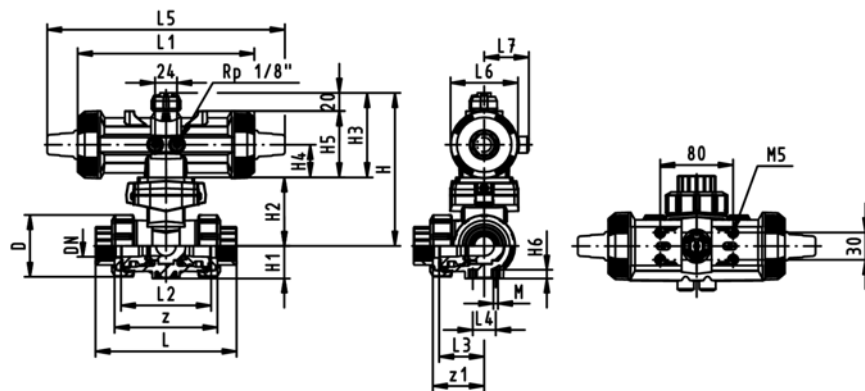
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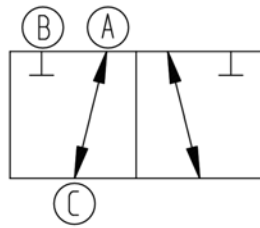
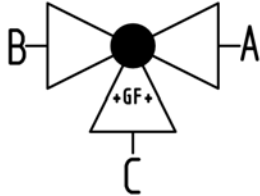
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	50	199 286 282	199 286 292	8.414
1/2	15	10	75	199 286 283	199 286 293	8.454
3/4	20	10	150	199 286 284	199 286 294	9.354
1	25	10	280	199 286 285	199 286 295	1.060
1 1/4	32	10	480	199 286 286	199 286 296	1.793
1 1/2	40	10	620	199 286 287	199 286 297	2.089
2	50	10	1230	199 286 288	199 286 298	2.996

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98





PROGEF Standard

3-Way ball valve type 286

Horizontal/L-port DA (Double acting)

Without manual override

With socket fusion spigots metric



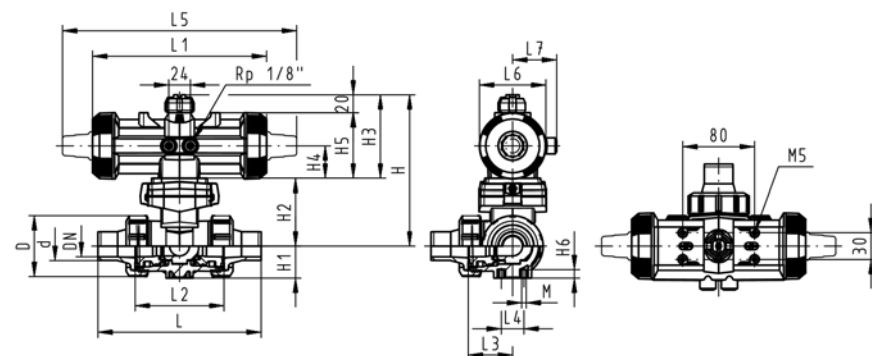
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	50	199 286 162	199 286 172	8.454
20	15	10	75	199 286 163	199 286 173	8.513
25	20	10	150	199 286 164	199 286 174	9.452
32	25	10	280	199 286 165	199 286 175	1.075
40	32	10	480	199 286 166	199 286 176	1.807
50	40	10	620	199 286 167	199 286 177	2.130
63	50	10	1230	199 286 168	199 286 178	3.078

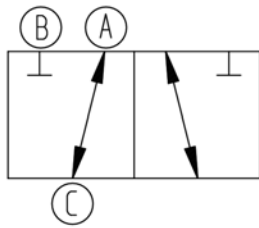
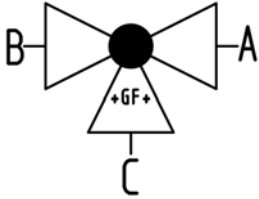
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard
3-Way ball valve type 286
Horizontal/L-port DA (Double acting)
Without manual override
With butt fusion spigots
IR-Plus SDR11 metric



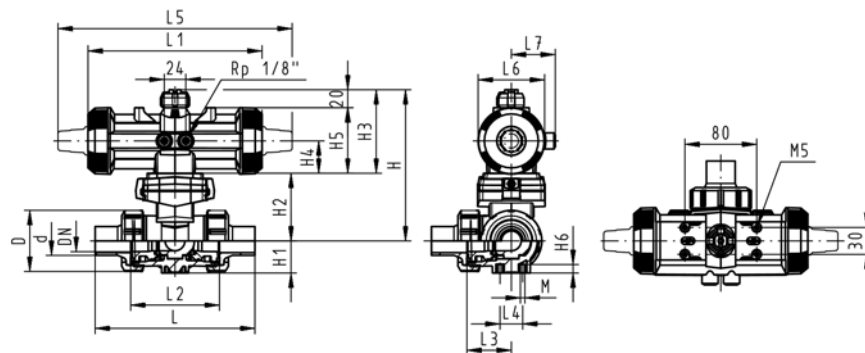
Model:

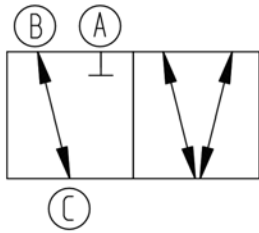
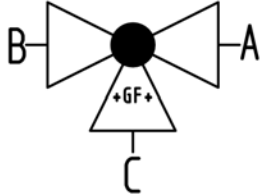
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-C opened, activated position B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	75	199 286 243	199 286 253	8.513
25	20	10	150	199 286 244	199 286 254	9.452
32	25	10	280	199 286 245	199 286 255	1.075
40	32	10	480	199 286 246	199 286 256	1.807
50	40	10	620	199 286 247	199 286 257	2.130
63	50	10	1230	199 286 248	199 286 258	3.078

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard 3-Way ball valve type 286 Horizontal/T-port Without manual override With fusion sockets metric



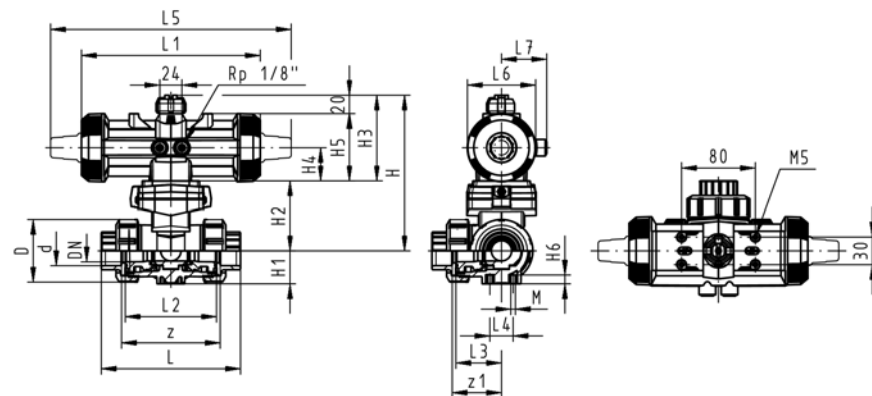
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90° < 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 286 062	199 286 072	1.031
20	15	10	200	199 286 063	199 286 073	1.035
25	20	10	470	199 286 064	199 286 074	1.124
32	25	10	793	199 286 065	199 286 075	1.245
40	32	10	1290	199 286 066	199 286 076	2.210
50	40	10	1910	199 286 067	199 286 077	2.499
63	50	10	3100	199 286 068	199 286 078	3.391

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94





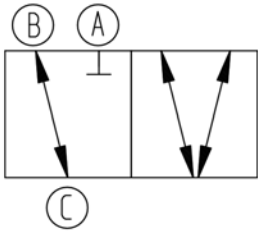
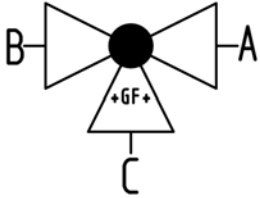
PROGEF Standard

3-Way ball valve type 286

Horizontal/T-port

Without manual override

With threaded sockets Rp reinforced



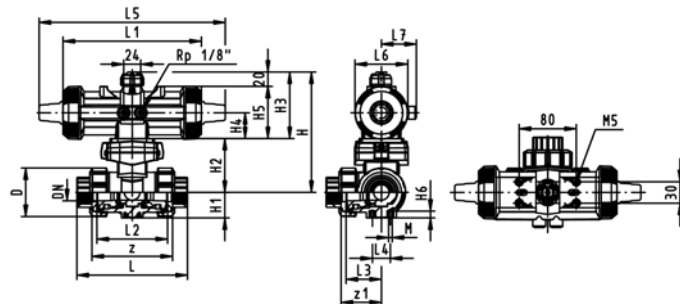
Model:

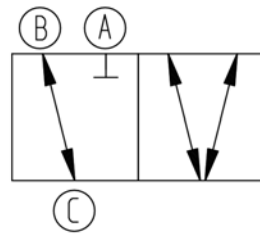
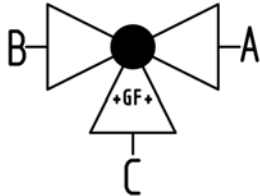
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 286 142	199 286 152	1.031
1/2	15	10	200	199 286 143	199 286 153	1.035
3/4	20	10	470	199 286 144	199 286 154	1.124
1	25	10	793	199 286 145	199 286 155	1.245
1 1/4	32	10	1290	199 286 146	199 286 156	2.210
1 1/2	40	10	1910	199 286 147	199 286 157	2.499
2	50	10	3100	199 286 148	199 286 158	3.391

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98





PROGEF Standard 3-Way ball valve type 286 Horizontal/T-port Without manual override With socket fusion spigots metric

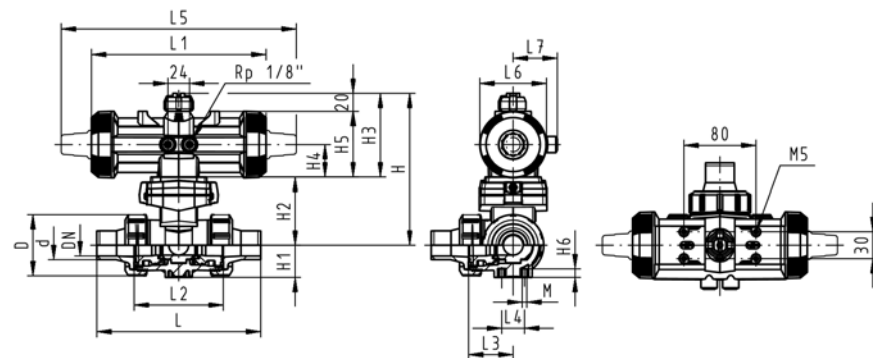
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time 90°(<) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 286 042	199 286 052	1.035
20	15	10	200	199 286 043	199 286 053	1.041
25	20	10	470	199 286 044	199 286 054	1.134
32	25	10	793	199 286 045	199 286 055	1.261
40	32	10	1290	199 286 046	199 286 056	2.224
50	40	10	1910	199 286 047	199 286 057	2.541
63	50	10	3100	199 286 048	199 286 058	3.473

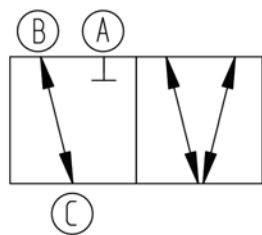
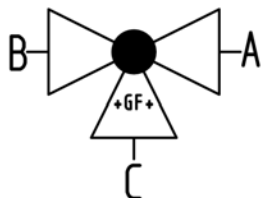
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard
3-Way ball valve type 286
Horizontal/T-port
Without manual override
With butt fusion spigots
IR-Plus SDR11 metric



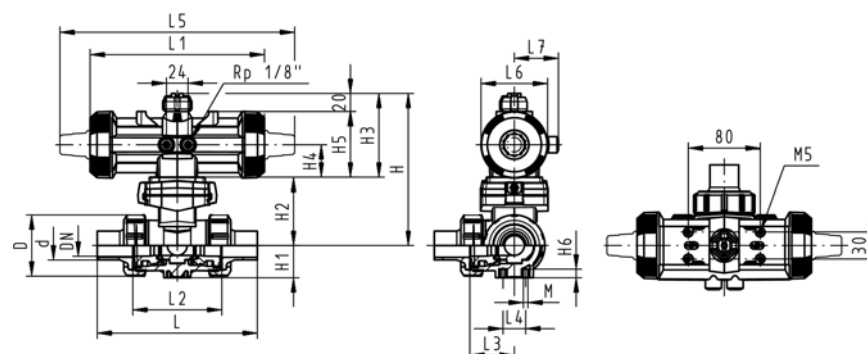
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Actuator fails safe to the closed position FC
- Basic position B-C opened, activated position A-B-C opened, see flow scheme
- Control time $90^\circ <$) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	199 286 103	199 286 113	1.041
25	20	10	470	199 286 104	199 286 114	1.134
32	25	10	793	199 286 105	199 286 115	1.261
40	32	10	1290	199 286 106	199 286 116	2.224
50	40	10	1910	199 286 107	199 286 117	2.541
63	50	10	3100	199 286 108	199 286 118	3.473

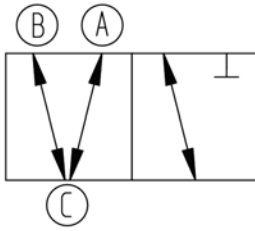
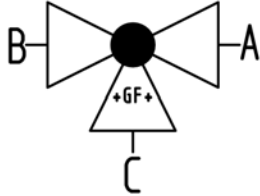
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard 3-Way ball valve type 286 Horizontal/T-port DA (Double acting) Without manual override With fusion sockets metric



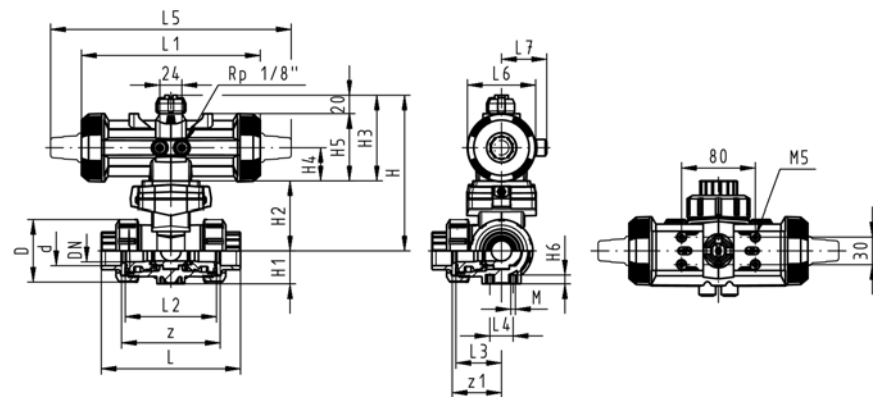
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$) 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 286 222	199 286 232	8.408
20	15	10	200	199 286 223	199 286 233	8.447
25	20	10	470	199 286 224	199 286 234	9.341
32	25	10	793	199 286 225	199 286 235	1.055
40	32	10	1290	199 286 226	199 286 236	1.786
50	40	10	1910	199 286 227	199 286 237	2.075
63	50	10	3100	199 286 228	199 286 238	2.967

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	110	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	129	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	146	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	170	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	193	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	244	224	176	88	45	305	95

d [mm]	L7 [mm]	M	z [mm]	z1 [mm]
16	48	6	82	41
20	48	6	82	41
25	48	6	97	49
32	48	6	110	55
40	59	8	132	66
50	59	8	151	76
63	59	8	188	94





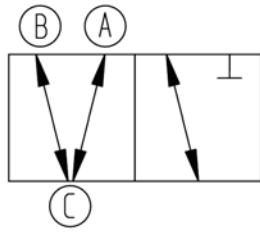
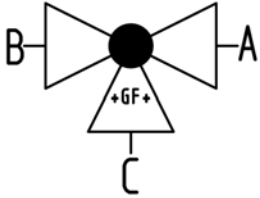
PROGEF Standard

3-Way ball valve type 286

Horizontal/T-port DA (Double acting)

Without manual override

With threaded sockets Rp reinforced



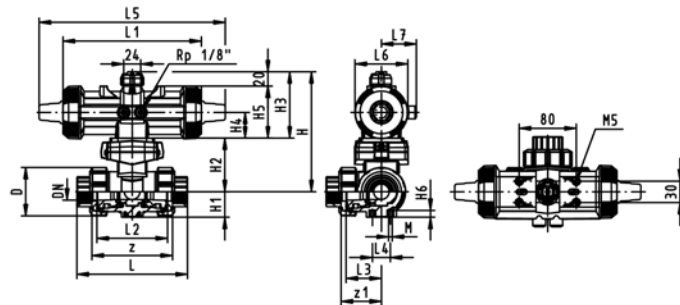
Model:

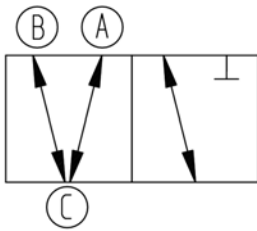
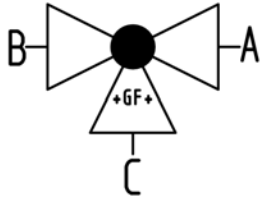
- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

Rp [inch]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3/8	10	10	140	199 286 302	199 286 312	8.408
1/2	15	10	200	199 286 303	199 286 313	8.447
3/4	20	10	470	199 286 304	199 286 314	9.341
1	25	10	793	199 286 305	199 286 315	1.055
1 1/4	32	10	1290	199 286 306	199 286 316	1.786
1 1/2	40	10	1910	199 286 307	199 286 317	2.075
2	50	10	3100	199 286 308	199 286 318	2.967

Rp [inch]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
3/8	50	159	28	62	97	40	77	8	112	194	72	36	25	261	76
1/2	50	159	28	62	97	40	77	8	114	194	72	36	25	261	76
3/4	58	168	32	71	97	40	77	8	131	194	85	43	25	261	76
1	68	168	36	71	97	40	77	8	154	194	98	49	25	261	76
1 1/4	84	203	45	84	119	51	99	9	180	224	118	59	45	305	95
1 1/2	97	203	51	84	119	51	99	9	203	224	135	68	45	305	95
2	124	225	65	106	119	51	99	9	258	224	176	88	45	305	95

Rp [inch]	L7 [mm]	M	z [mm]	z1 [mm]
3/8	48	6	86	43
1/2	48	6	84	42
3/4	48	6	99	50
1	48	6	112	56
1 1/4	59	8	132	66
1 1/2	59	8	153	77
2	59	8	196	98





PROGEF Standard

3-Way ball valve type 286

Horizontal/T-port DA (Double acting)

Without manual override

With socket fusion spigots metric



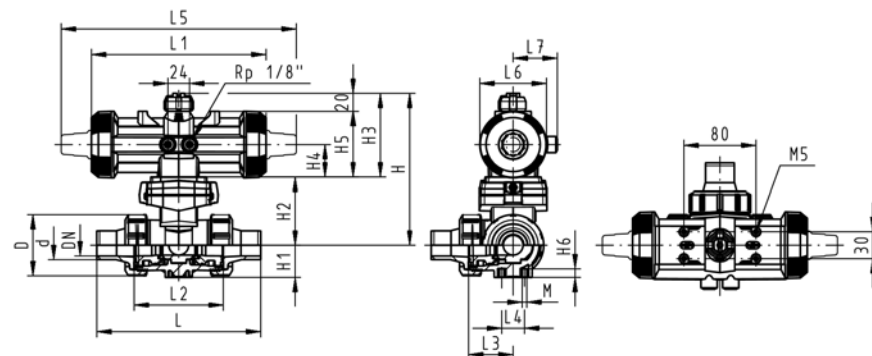
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	140	199 286 202	199 286 212	8.447
20	15	10	200	199 286 203	199 286 213	8.506
25	20	10	470	199 286 204	199 286 214	9.439
32	25	10	793	199 286 205	199 286 215	1.071
40	32	10	1290	199 286 206	199 286 216	1.800
50	40	10	1910	199 286 207	199 286 217	2.117
63	50	10	3100	199 286 208	199 286 218	3.049

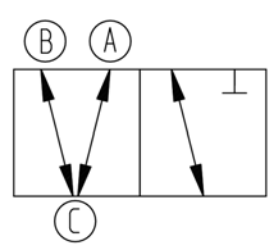
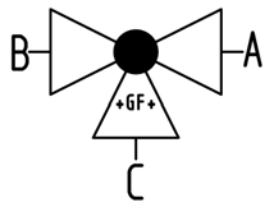
d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
16	50	159	28	62	97	40	77	8	126	194	72	36	25	261	76
20	50	159	28	62	97	40	77	8	136	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	159	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
16	48	6
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8





PROGEF Standard
3-Way ball valve type 286
Horizontal/T-port DA (Double acting)
Without manual override
With butt fusion spigots
IR-Plus SDR11 metric



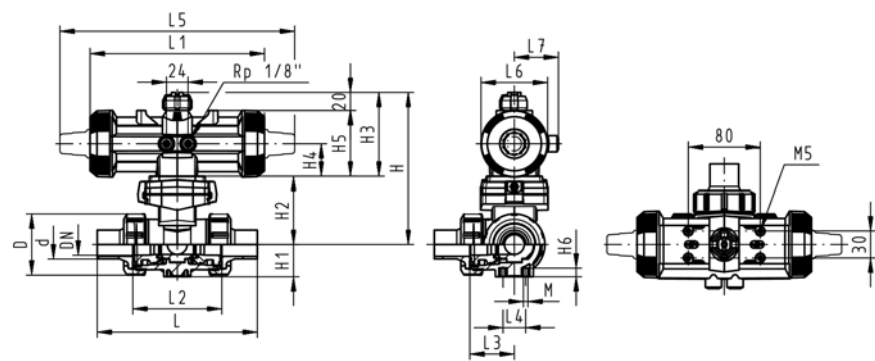
Model:

- Material: PP-H
- Built on with pneumatic actuator PA11 (DN10/15-25), PA21 (DN32-50)
- Basic position A-B-C opened, activated position B-C opened, see flow scheme
- Control time $90^\circ <$ 1-3 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	200	199 286 263	199 286 273	8.506
25	20	10	470	199 286 264	199 286 274	9.439
32	25	10	793	199 286 265	199 286 275	1.071
40	32	10	1290	199 286 266	199 286 276	1.800
50	40	10	1910	199 286 267	199 286 277	2.117
63	50	10	3100	199 286 268	199 286 278	3.049

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	159	28	62	97	40	77	8	146	194	72	36	25	261	76
25	58	168	32	71	97	40	77	8	163	194	85	43	25	261	76
32	68	168	36	71	97	40	77	8	178	194	98	49	25	261	76
40	84	203	45	84	119	51	99	9	204	224	118	59	45	305	95
50	97	203	51	84	119	51	99	9	237	224	135	68	45	305	95
63	124	225	65	106	119	51	99	9	296	224	176	88	45	305	95

d [mm]	L7 [mm]	M
20	48	6
25	48	6
32	48	6
40	59	8
50	59	8
63	59	8



Diaphragm valves pneumatic

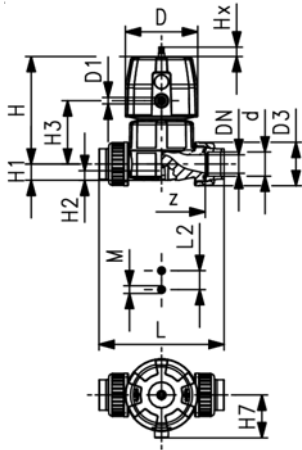
New generation

PROGEF Standard

Diaphragm valve DIASTAR Six

FC (Fail safe to close)

Unions with fusion sockets metric



Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	167 614 012	0.529
25	20	6	271	167 614 013	1.007
32	25	6	481	167 614 014	1.195
40	32	6	759	167 614 015	1.916
50	40	6	960	167 614 016	2.455
63	50	6	1181	167 614 017	3.407

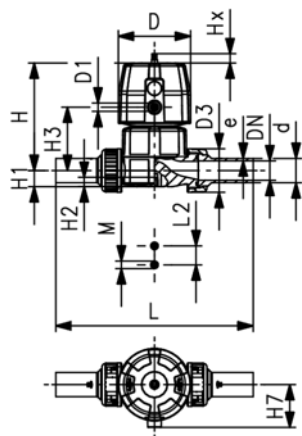
d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	43	M6	100	7
25	96	1/8	150	25	132	18	12	73	57	M6	118	10
32	96	1/8	162	25	143	22	12	84	57	M6	126	13
40	120	1/8	184	45	173	26	15	99	69	M8	144	14
50	120	1/8	210	45	193	32	15	119	69	M8	164	16
63	120	1/8	248	45	205	39	15	132	69	M8	194	16

PROGEF Standard

Diaphragm valve DIASTAR Six

FC (Fail safe to close)

Unions with butt fusion spigots SDR11 metric



Model:

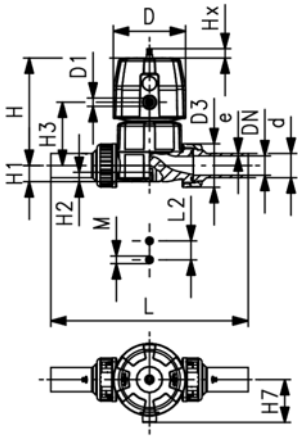
- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	167 614 112	0.537
25	20	6	271	167 614 113	1.019
32	25	6	481	167 614 114	1.215
40	32	6	759	167 614 115	1.948
50	40	6	960	167 614 116	2.463
63	50	6	1181	167 614 117	3.421

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	284	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	321	45	205	39	15	132	69	M8	16	5.8



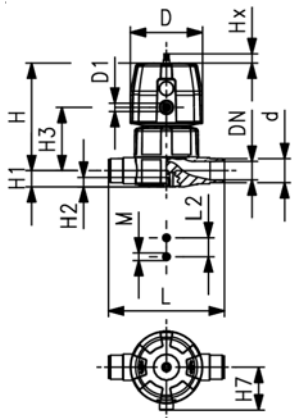
PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With socket fusion spigots metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	167 615 012	0.466
25	20	6	271	167 615 013	0.903
32	25	6	481	167 615 014	1.064
40	32	6	759	167 615 015	1.747
50	40	6	960	167 615 016	2.207
63	50	6	1181	167 615 017	2.981

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	194	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	224	45	205	39	15	132	69	M8	16	5.8



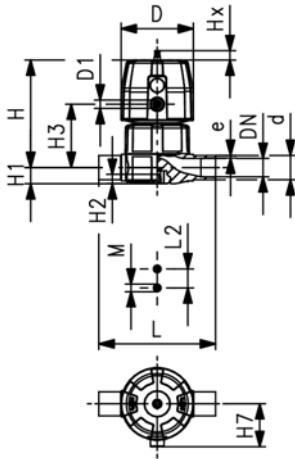
PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	167 615 112	0.465
25	20	6	271	167 615 113	0.899
32	25	6	481	167 615 114	1.062
40	32	6	759	167 615 115	1.743
50	40	6	960	167 615 116	2.202
63	50	6	1181	167 615 117	2.978

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	194	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	224	45	205	39	15	132	69	M8	16	5.8



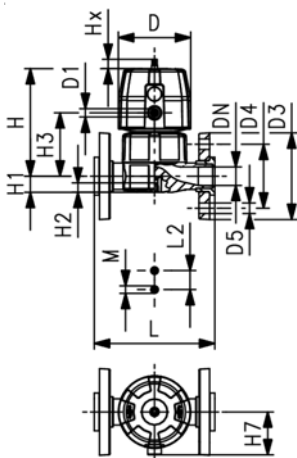
PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With backing flanges PP-V metric/BS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

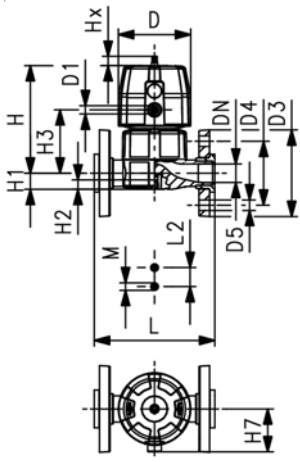
- Individual configuration of the valve (see diagram)



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	167 617 112	0.648
25	20	6	271	167 617 113	1.148
32	25	6	481	167 617 114	1.410
40	32	6	759	167 617 115	2.279
50	40	6	960	167 617 116	2.751
63	50	6	1181	167 617 117	3.921

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	95	65	14	130	25	101	14	12	60	43	M6	7
25	96	1/8	105	75	14	150	25	132	18	12	73	57	M6	10
32	96	1/8	115	85	14	160	25	143	22	12	84	69	M6	13

table continued next page



d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
40	120	1/8	140	100	18	180	45	173	26	15	99	69	M8	14
50	120	1/8	150	110	18	200	45	193	32	15	119	69	M8	16
63	120	1/8	165	125	18	230	45	205	39	15	132	69	M8	16



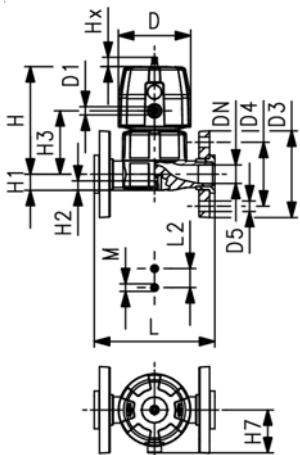
PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With backing flanges PP-V Inch ANSI

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

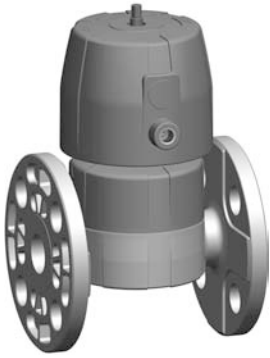
Option:

- Individual configuration of the valve (see diagram)



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	125	167 617 712	0.648
3/4	20	6	271	167 617 713	1.148
1	25	6	481	167 617 714	1.410
1 1/4	32	6	759	167 617 715	2.279
1 1/2	40	6	960	167 617 716	2.751
2	50	6	1181	167 617 717	3.921

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
1/2	68	1/8	95	60	16	130	25	101	14	12	60	43	M6	7
3/4	96	1/8	105	70	16	150	25	132	18	12	73	57	M6	10
1	96	1/8	115	79	16	160	25	143	22	12	84	69	M6	13
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	69	M8	14
1 1/2	120	1/8	150	98	16	200	45	193	32	15	119	69	M8	16
2	120	1/8	165	121	19	230	45	205	39	15	132	69	M8	16



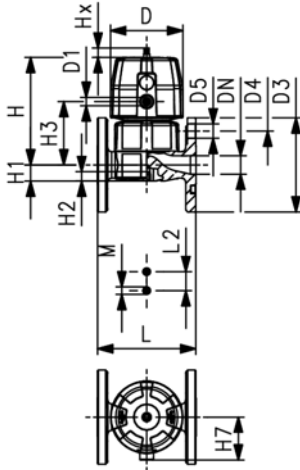
PROGEF Standard Diaphragm valve DIASTAR Six FC (Fail safe to close) With fixed flanges PP-H JIS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: JIS B2238/39 10K

Option:

- Individual configuration of the valve (see diagram)



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
1/2	15	6	125	167 617 912	0.593
3/4	20	6	271	167 617 913	0.000
1	25	6	481	167 617 914	0.000
1 1/4	32	6	759	167 617 915	0.000
1 1/2	40	6	960	167 617 916	0.000
2	50	6	1181	167 617 917	0.000

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]
1/2	68	1/8	95	70	15	110	25	101	14	12	60	43	M6	7
3/4	96	1/8	100	75	15	120	25	132	18	12	73	57	M6	10
1	96	1/8	125	90	19	130	25	143	22	12	84	69	M6	13
1 1/4	120	1/8	135	100	19	180	45	173	26	15	99	69	M8	14
1 1/2	120	1/8	140	105	19	180	45	193	32	15	119	69	M8	16
2	120	1/8	155	120	19	210	45	205	39	15	132	69	M8	16



PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with fusion sockets metric

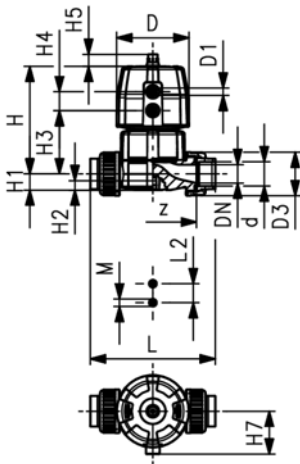
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

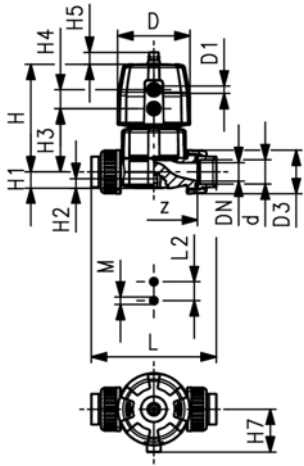
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	167 624 012	167 624 032	0.565
25	20	10/10*	271	167 624 013	167 624 033	1.094
32	25	10/10*	481	167 624 014	167 624 034	1.287
40	32	10/10*	759	167 624 015	167 624 035	2.086
50	40	10/10*	1263	167 624 016	167 624 036	3.623
63	50	10/6*	1728	167 624 017	167 624 037	4.356

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	150	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	162	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	184	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	210	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	248	45	226	39	15	132	36	26	88	M8	194	23



PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) Unions with butt fusion spigots SDR11 metric

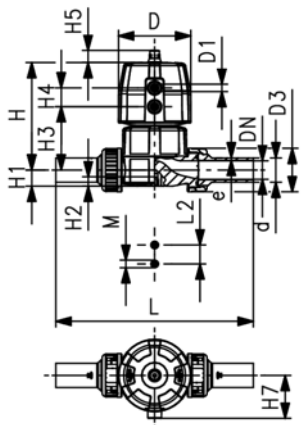
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value (Δp=1 bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	167 624 112	167 624 132	0.573
25	20	10/10*	271	167 624 113	167 624 133	1.106
32	25	10/10*	481	167 624 114	167 624 134	1.307
40	32	10/10*	759	167 624 115	167 624 135	2.118
50	40	10/10*	1263	167 624 116	167 624 136	3.631
63	50	10/6*	1728	167 624 117	167 624 137	4.370

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	284	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	321	45	226	39	15	132	36	26	88	M8	23	5.8



PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With socket fusion spigots metric

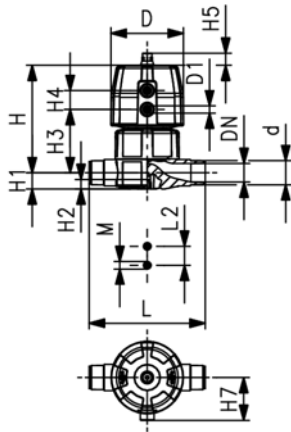
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	167 625 012	167 625 032	0.502
25	20	10/10*	271	167 625 013	167 625 033	0.990
32	25	10/10*	481	167 625 014	167 625 034	1.156
40	32	10/10*	759	167 625 015	167 625 035	1.917
50	40	10/10*	1263	167 625 016	167 625 036	3.375
63	50	10/6*	1728	167 625 017	167 625 037	3.930

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8



PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With butt fusion spigots SDR11 metric

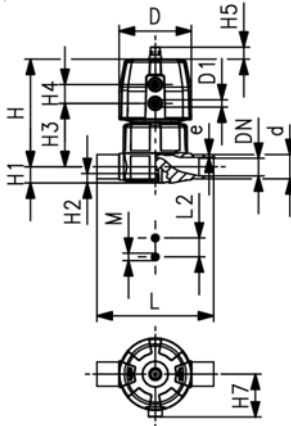
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

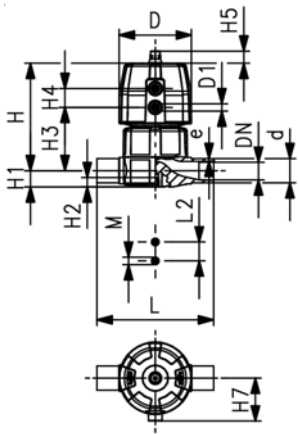
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	167 625 112	167 625 132	0.501
25	20	10/10*	271	167 625 113	167 625 133	0.986
32	25	10/10*	481	167 625 114	167 625 134	1.154
40	32	10/10*	759	167 625 115	167 625 135	1.913
50	40	10/10*	1263	167 625 116	167 625 136	3.370
63	50	10/6*	1728	167 625 117	167 625 137	3.927

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With backing flanges PP-V metric/BS

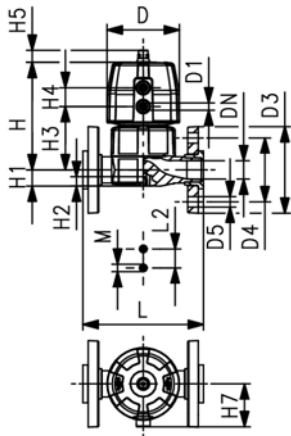
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

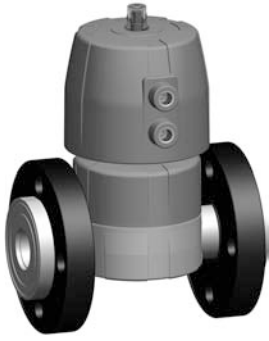
* PN: PTFE/EPDM



d [mm]	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10/10*	125	167 627 112	167 627 132	0.684
25	20	10/10*	271	167 627 113	167 627 133	1.234
32	25	10/10*	481	167 627 114	167 627 134	1.502
40	32	10/10*	759	167 627 115	167 627 135	2.449
50	40	10/10*	1263	167 627 116	167 627 136	3.919
63	50	10/6*	1728	167 627 117	167 627 137	4.870

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	43	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	69	M8
50	150	1/4	150	110	18	200	45	193	32	15	119	36	26	88	M8
63	150	1/4	165	125	18	230	45	205	39	15	132	36	26	88	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With backing flanges PP-V Inch ANSI

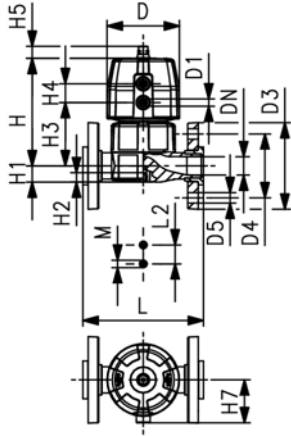
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



Inch	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10/10*	125	167 627 712	167 627 732	0.684
3/4	20	10/10*	271	167 627 713	167 627 733	1.234
1	25	10/10*	481	167 627 714	167 627 734	1.502
1 1/4	32	10/10*	759	167 627 715	167 627 735	2.449
1 1/2	40	10/10*	1263	167 627 716	167 627 736	3.919
2	50	10/6*	1728	167 627 717	167 627 737	4.870

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	43	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	69	M8
1 1/2	150	1/4	150	98	16	200	45	193	32	15	119	36	26	88	M8
2	150	1/4	165	121	19	230	45	205	39	15	132	36	26	88	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



PROGEF Standard

Diaphragm valve type DIASTAR

Series 025 FC (Fail safe to close)

With fixed flanges PP metric

Model:

- Material: PP-H
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

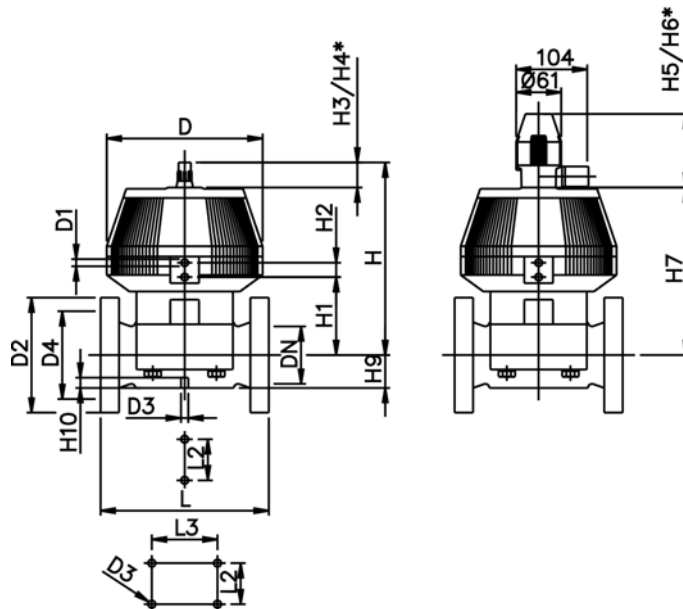
* With backing flanges PP-V

** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 75	65	2 ½	10	992	199 025 267	199 025 297	13.600
** 90	80	3	10	1700	199 025 268	199 025 298	17.400
110	100	4	6	2700	199 025 269	199 025 299	24.700
** 160	150	6	6	6033	199 025 270	-	35.000

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20





PROGEF Standard Diaphragm valve DIASTAR Ten FC (Fail safe to close) With fixed flanges PP-H JIS

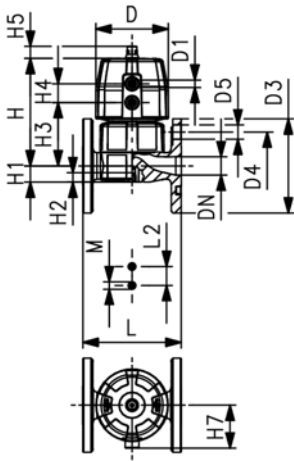
Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Connecting dimension: JIS B2238/39 10K
- Flat sealing faces/serrated

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

* PN: PTFE/EPDM



Inch	DN [mm]	PN* [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10/10*	125	167 627 912	167 627 932	0.628
3/4	20	10/10*	271	167 627 913	167 627 933	0.000
1	25	10/10*	481	167 627 914	167 627 934	0.000
1 1/4	32	10/10*	759	167 627 915	167 627 935	0.000
1 1/2	40	10/10*	1263	167 627 916	167 627 936	0.000
2	50	10/6*	1728	167 627 917	167 627 937	0.000

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	68	1/8	95	70	15	110	25	101	14	12	60	24	16	43	M6
3/4	96	1/8	100	75	15	120	25	132	18	12	73	25	16	57	M6
1	96	1/8	125	90	19	130	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	135	100	19	180	45	173	26	15	99	26	26	69	M8
1 1/2	150	1/4	140	105	19	180	45	193	32	15	119	36	26	88	M8
2	150	1/4	155	120	19	210	45	205	39	15	132	36	26	88	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



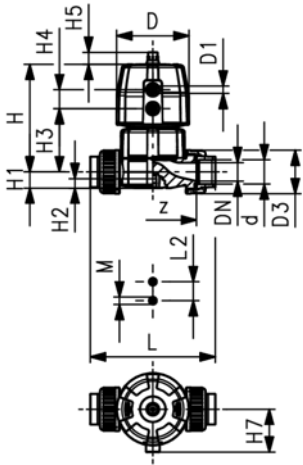
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with fusion sockets metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 644 012	167 644 032	0.515
25	20	10	271	167 644 013	167 644 033	0.919
32	25	10	481	167 644 014	167 644 034	1.107
40	32	10	759	167 644 015	167 644 035	1.726
50	40	10	1263	167 644 016	167 644 036	3.533
63	50	10	1728	167 644 017	167 644 037	4.266

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	194	23



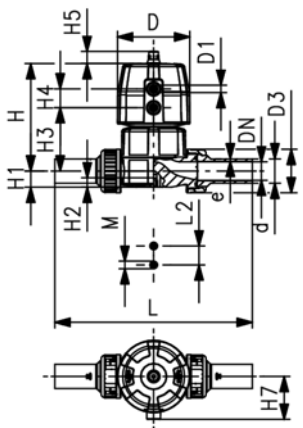
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) Unions with butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

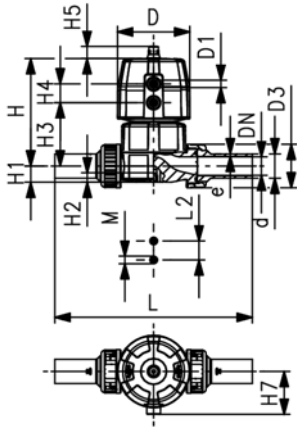
Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 644 112	167 644 132	0.523
25	20	10	271	167 644 113	167 644 133	0.931
32	25	10	481	167 644 114	167 644 134	1.127
40	32	10	759	167 644 115	167 644 135	1.758
50	40	10	1263	167 644 116	167 644 136	3.541
63	50	10	1728	167 644 117	167 644 137	4.280

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	4.6
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	5.8



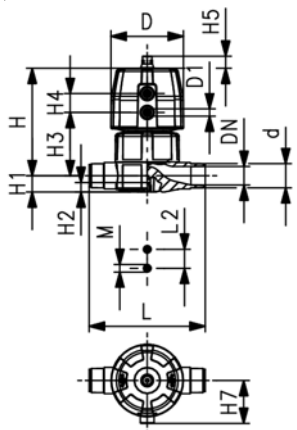
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With socket fusion spigots metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 645 012	167 645 032	0.452
25	20	10	271	167 645 013	167 645 033	0.816
32	25	10	481	167 645 014	167 645 034	0.976
40	32	10	759	167 645 015	167 645 035	1.557
50	40	10	1263	167 645 016	167 645 036	3.285
63	50	10	1728	167 645 017	167 645 037	3.840

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8



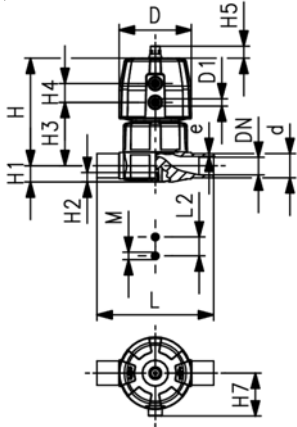
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 645 112	167 645 132	0.451
25	20	10	271	167 645 113	167 645 133	0.812
32	25	10	481	167 645 114	167 645 134	0.974
40	32	10	759	167 645 115	167 645 135	1.553
50	40	10	1263	167 645 116	167 645 136	3.280
63	50	10	1728	167 645 117	167 645 137	3.837

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8



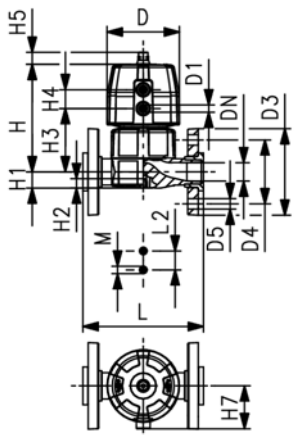
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With backing flanges PP-V metric/BS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

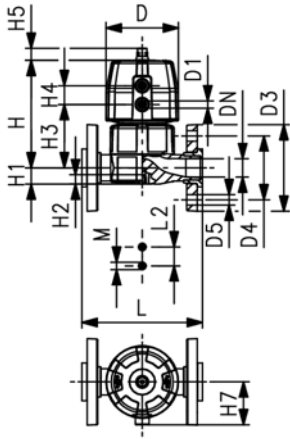
Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 647 112	167 647 132	0.634
25	20	10	271	167 647 113	167 647 133	1.060
32	25	10	481	167 647 114	167 647 134	1.322
40	32	10	759	167 647 115	167 647 135	2.089
50	40	10	1263	167 647 116	167 647 136	3.829
63	50	10	1728	167 647 117	167 647 137	4.780

table continued next page



d	D	D1_G	D3	D4	D5	L	L2	H	H1	H2	H3	H4	H5	H7	M
[mm]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	88	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	103	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	103	M8

d	Lift = Hx
[mm]	[mm]
20	7
25	10
32	13
40	15
50	19
63	23



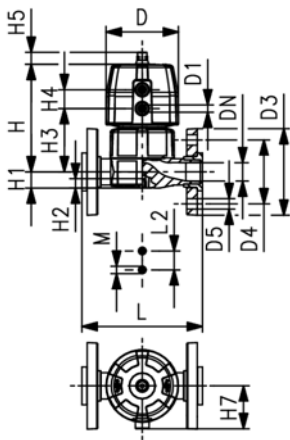
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With backing flanges PP-V Inch ANSI

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

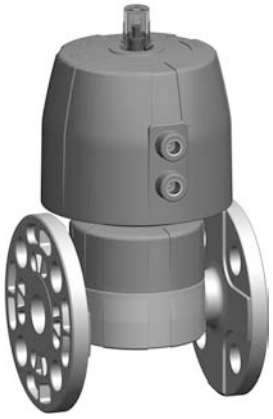
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN	PN	kv-value	EPDM	PTFE/EPDM	kg
	[mm]		($\Delta p=1$ bar)	Code	Code	
			[l/min]			
1/2	15	10	125	167 647 712	167 647 732	0.634
3/4	20	10	271	167 647 713	167 647 733	1.060
1	25	10	481	167 647 714	167 647 734	1.322
1 1/4	32	10	759	167 647 715	167 647 735	2.089
1 1/2	40	10	1263	167 647 716	167 647 736	3.829
2	50	10	1728	167 647 717	167 647 737	4.780

Inch	D	D1_G	D3	D4	D5	L	L2	H	H1	H2	H3	H4	H5	H7	M
	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	57	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	88	M8
1 1/2	150	1/4	150	98	16	200	45	214	32	15	119	36	26	103	M8
2	150	1/4	165	121	19	230	45	226	39	15	132	36	26	103	M8

Inch	Lift = Hx
	[mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



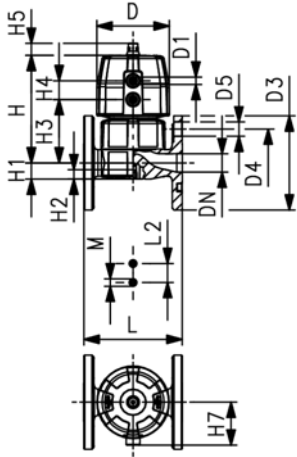
PROGEF Standard Diaphragm valve DIASTAR Ten FO (Fail safe to open) With fixed flanges PP-H JIS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: JIS B2238/39 10K

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
½	15	10	125	167 647 912	167 647 932	0.578
¾	20	10	271	167 647 913	167 647 933	0.934
1	25	10	481	167 647 914	167 647 934	0.000
1 ¼	32	10	759	167 647 915	167 647 935	0.000
1 ½	40	10	1263	167 647 916	167 647 936	0.000
2	50	10	1728	167 647 917	167 647 937	0.000

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
½	68	⅜	95	70	15	110	25	101	14	12	60	24	16	57	M6
¾	96	⅜	100	75	15	120	25	132	18	12	73	25	16	57	M6
1	96	⅜	125	90	19	130	25	143	22	12	84	25	16	69	M6
1 ¼	120	⅜	135	100	19	180	45	173	26	15	99	26	26	88	M8
1 ½	150	¼	140	105	19	180	45	214	32	15	119	36	26	103	M8
2	150	¼	155	120	19	210	45	226	39	15	132	36	26	103	M8

Inch	Lift = Hx [mm]
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



PROGEF Standard Diaphragm valve type DIASTAR Series 025 FO (Fail safe to open) With fixed flanges PP metric

Model:

- Material: PP-H
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

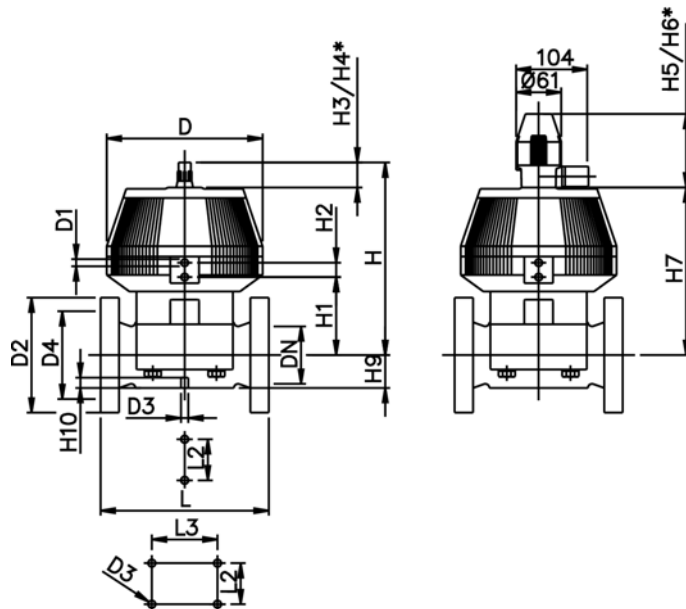
* With backing flanges PP-V

** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 75	65	2 ½	10	992	199 025 277	199 025 307	13.600
** 90	80	3	10	1700	199 025 278	199 025 308	17.400
110	100	4	6	2700	199 025 279	199 025 309	24.700
** 160	150	6	6	6033	199 025 280	199 025 310	35.000

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20





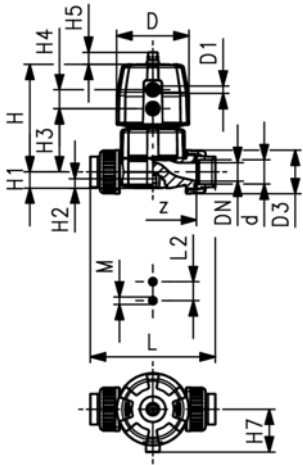
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) Unions with fusion sockets metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 654 012	167 654 032	0.499
25	20	10	271	167 654 013	167 654 033	0.883
32	25	10	481	167 654 014	167 654 034	1.077
40	32	10	759	167 654 015	167 654 035	1.666
50	40	10	1263	167 654 016	167 654 036	2.783
63	50	10	1728	167 654 017	167 654 037	3.516

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	68	1/8	128	25	101	14	12	60	24	16	43	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	96	1/8	166	25	143	22	12	84	25	16	57	M6	126	13
40	120	1/8	192	45	173	26	15	99	26	26	69	M8	144	15
50	150	1/4	222	45	214	32	15	119	36	26	88	M8	164	19
63	150	1/4	266	45	226	39	15	132	36	26	88	M8	194	23



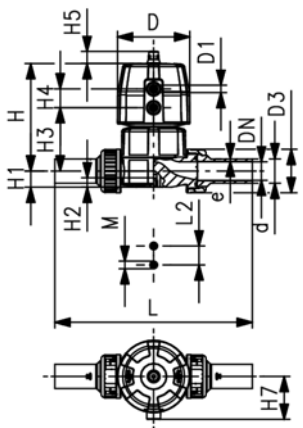
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) Unions with butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- For easy installation and removal
- Short overall length

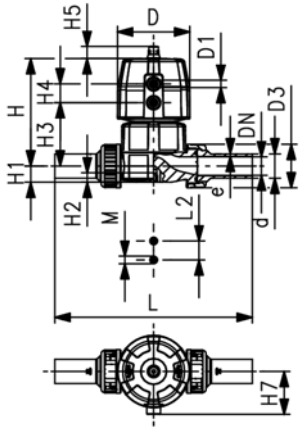
Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 654 112	167 654 132	0.507
25	20	10	271	167 654 113	167 654 133	0.895
32	25	10	481	167 654 114	167 654 134	1.097
40	32	10	759	167 654 115	167 654 135	1.698
50	40	10	1263	167 654 116	167 654 136	2.791
63	50	10	1728	167 654 117	167 654 137	3.530

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	196	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	234	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	260	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	284	45	214	32	15	119	36	26	69	M8	19	4.6
63	150	1/4	321	45	226	39	15	132	36	26	69	M8	23	5.8



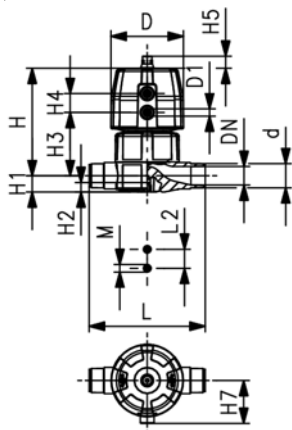
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With socket fusion spigots metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 655 012	167 655 032	0.436
25	20	10	271	167 655 013	167 655 033	0.780
32	25	10	481	167 655 014	167 655 034	0.946
40	32	10	759	167 655 015	167 655 035	1.497
50	40	10	1263	167 655 016	167 655 036	2.535
63	50	10	1728	167 655 017	167 655 037	3.090

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23



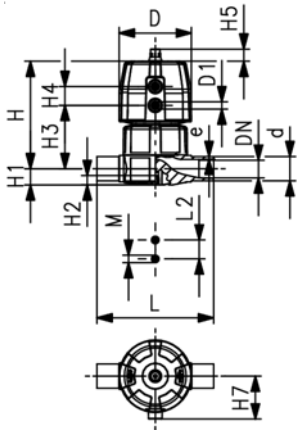
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 655 112	167 655 132	0.435
25	20	10	271	167 655 113	167 655 133	0.776
32	25	10	481	167 655 114	167 655 134	0.944
40	32	10	759	167 655 115	167 655 135	1.493
50	40	10	1263	167 655 116	167 655 136	2.530
63	50	10	1728	167 655 117	167 655 137	3.087

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8



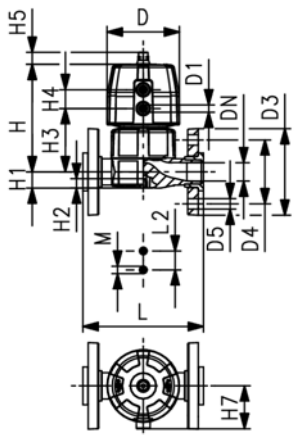
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With backing flanges PP-V metric/BS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

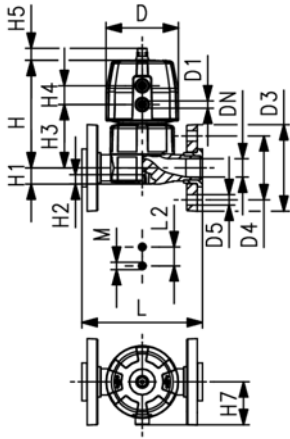
Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 657 112	167 657 132	0.618
25	20	10	271	167 657 113	167 657 133	1.024
32	25	10	481	167 657 114	167 657 134	1.292
40	32	10	759	167 657 115	167 657 135	2.029
50	40	10	1263	167 657 116	167 657 136	3.079
63	50	10	1728	167 657 117	167 657 137	4.030

table continued next page



d	D	D1_G	D3	D4	D5	L	L2	H	H1	H2	H3	H4	H5	H7	M
[mm]	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
20	68	1/8	95	65	14	130	25	101	14	12	60	24	16	57	M6
25	96	1/8	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	96	1/8	115	85	14	160	25	143	22	12	84	25	16	69	M6
40	120	1/8	140	100	18	180	45	173	26	15	99	26	26	88	M8
50	150	1/4	150	110	18	200	45	214	32	15	119	36	26	103	M8
63	150	1/4	165	125	18	230	45	226	39	15	132	36	26	103	M8

d	Lift = Hx
[mm]	[mm]
20	7
25	10
32	13
40	15
50	19
63	23



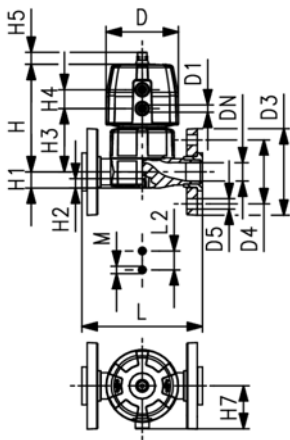
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With backing flanges PP-V Inch ANSI

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN	PN	kv-value	EPDM	PTFE/EPDM	kg
	[mm]		($\Delta p=1$ bar)	Code	Code	
			[l/min]			
1/2	15	10	125	167 657 712	167 657 732	0.618
3/4	20	10	271	167 657 713	167 657 733	1.024
1	25	10	481	167 657 714	167 657 734	1.292
1 1/4	32	10	759	167 657 715	167 657 735	2.029
1 1/2	40	10	1263	167 657 716	167 657 736	3.079
2	50	10	1728	167 657 717	167 657 737	4.030

Inch	D	D1_G	D3	D4	D5	L	L2	H	H1	H2	H3	H4	H5	H7	M
	[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
1/2	68	1/8	95	60	16	130	25	101	14	12	60	24	16	57	M6
3/4	96	1/8	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	96	1/8	115	79	16	160	25	143	22	12	84	25	16	69	M6
1 1/4	120	1/8	140	89	16	180	45	173	26	15	99	26	26	88	M8
1 1/2	150	1/4	150	98	16	200	45	214	32	15	119	36	26	103	M8
2	150	1/4	165	121	19	230	45	226	39	15	132	36	26	103	M8

Inch	Lift = Hx
	[mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23



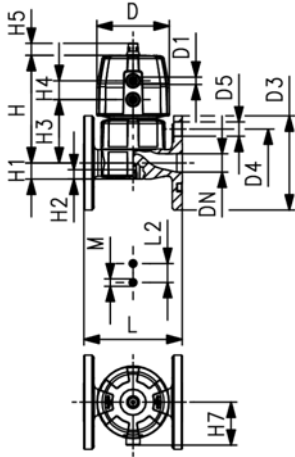
PROGEF Standard Diaphragm valve DIASTAR Ten DA (Double acting) With fixed flanges PP-H JIS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: JIS B2238/39 10K

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
½	15	10	125	167 657 912	167 657 932	0.562
¾	20	10	271	167 657 913	167 657 933	0.898
1	25	10	481	167 657 914	167 657 934	0.000
1 ¼	32	10	759	167 657 915	167 657 935	0.000
1 ½	40	10	1263	167 657 916	167 657 936	0.000
2	50	10	1728	167 657 917	167 657 937	0.000

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
½	68	⅜	95	70	15	110	25	101	14	12	60	24	16	57	M6
¾	96	⅜	100	75	15	120	25	132	18	12	73	25	16	57	M6
1	96	⅜	125	90	19	130	25	143	22	12	84	25	16	69	M6
1 ¼	120	⅜	135	100	19	180	45	173	26	15	99	26	26	88	M8
1 ½	150	¼	140	105	19	180	45	214	32	15	119	36	26	103	M8
2	150	¼	155	120	19	210	45	226	39	15	132	36	26	103	M8

Inch	Lift = Hx [mm]
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



PROGEF Standard Diaphragm valve type DIASTAR Series 025 DA (Double acting) With fixed flanges PP metric

Model:

- Material: PP-H
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504
- With position indicator / Working pressure: **one side**

* With backing flanges PP-V

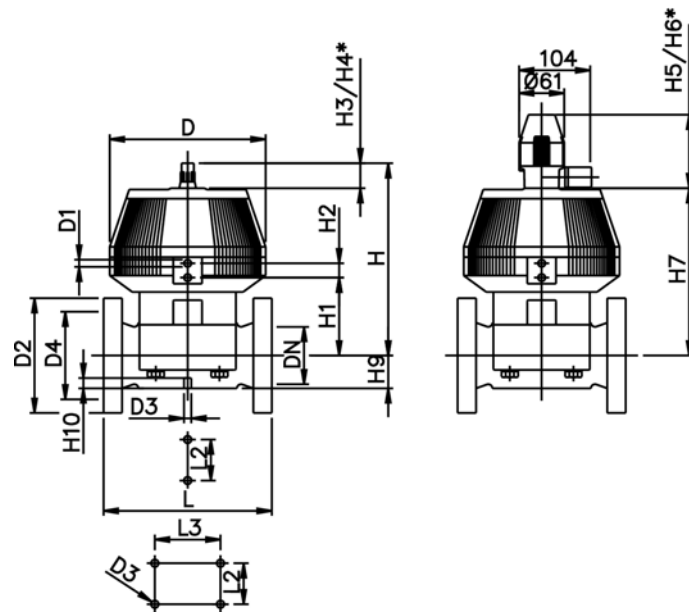
** Connecting dimensions DN80 and DN150 metric and Inch ANSI B16.5

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
* 75	65	2 ½	10	992	199 025 287	199 025 317	13.600
** 90	80	3	10	1700	199 025 288	199 025 318	17.400
110	100	4	6	2700	199 025 289	199 025 319	24.700
** 160	150	6	6	6033	199 025 290	199 025 320	35.000

table continued next page

d [mm]	D [mm]	D1_G [inch]	D2 [mm]	D3[M] [mm]	D4 [mm]	L [mm]	L2 [mm]	L3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]
* 75	280	¼	185	8	145	290	70		344	148	24	46	100	129
** 90	280	¼	200	12	160	310	120		348	150	24	46	100	129
110	335	¼	225	12	180	350	120		395	176	24	46	100	129
** 160	335	¼	285	12	240	480	100	200	455	237	24	46	100	129

d [mm]	H6 [mm]	H7 [mm]	H9 [mm]	H10 [mm]
* 75	195	298	46	15
** 90	195	302	57	15
110	195	349	69	20
** 160	195	409	108	20



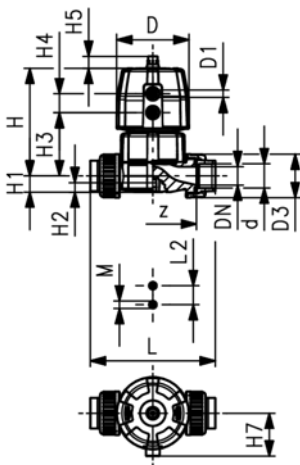
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with fusion sockets metric

Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- For easy installation and removal
- Short overall length

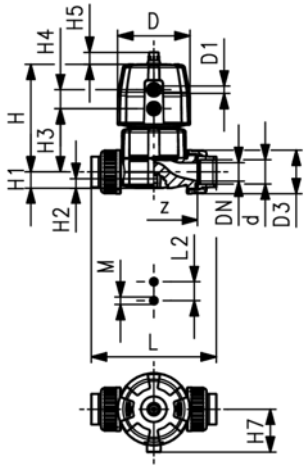
Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 634 012	167 634 032	0.965
25	20	10	271	167 634 013	167 634 033	1.094
32	25	10	481	167 634 014	167 634 034	1.881
40	32	10	759	167 634 015	167 634 035	3.156
50	40	10	1263	167 634 016	167 634 036	5.031
63	50	10	1728	167 634 017	167 634 037	5.763

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	z [mm]	Lift = Hx [mm]
20	96	1/8	128	25	127	14	12	68	25	16	57	M6	100	7
25	96	1/8	152	25	132	18	12	73	25	16	57	M6	118	10
32	120	1/8	166	25	167	22	12	93	26	26	69	M6	126	13
40	150	1/4	192	45	196	26	15	101	36	26	88	M8	144	15
50	180	1/4	222	45	239	32	15	124	37	26	103	M8	164	19
63	180	1/4	266	45	251	39	15	137	37	26	103	M8	194	23



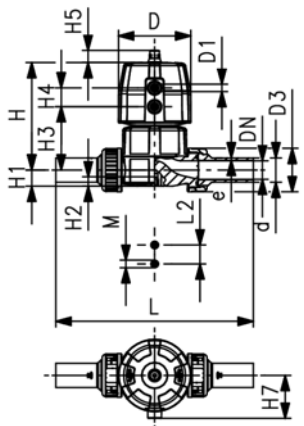
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) Unions with butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 634 112	167 634 132	0.973
25	20	10	271	167 634 113	167 634 133	1.106
32	25	10	481	167 634 114	167 634 134	1.901
40	32	10	759	167 634 115	167 634 135	3.188
50	40	10	1263	167 634 116	167 634 136	5.039
63	50	10	1728	167 634 117	167 634 137	5.777

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	196	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	221	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	234	25	167	22	12	93	26	26	69	M6	13	2.9
40	150	1/4	260	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	1/4	284	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	1/4	321	45	251	39	15	137	37	26	103	M8	23	5.8



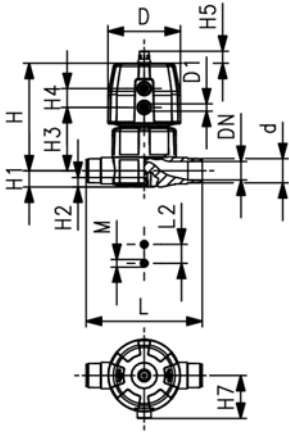
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With socket fusion spigots metric

Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 635 012	167 635 032	0.902
25	20	10	271	167 635 013	167 635 033	0.990
32	25	10	481	167 635 014	167 635 034	1.750
40	32	10	759	167 635 015	167 635 035	2.987
50	40	10	1263	167 635 016	167 635 036	4.783
63	50	10	1728	167 635 017	167 635 037	5.337

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.9
40	150	1/4	174	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	1/4	194	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	1/4	224	45	251	39	15	137	37	26	103	M8	23	5.8



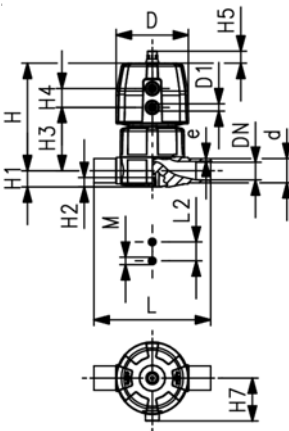
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor

Option:

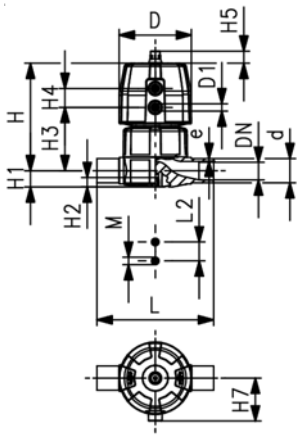
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 635 112	167 635 132	0.901
25	20	10	271	167 635 113	167 635 133	0.986
32	25	10	481	167 635 114	167 635 134	1.748
40	32	10	759	167 635 115	167 635 135	2.983
50	40	10	1263	167 635 116	167 635 136	4.778
63	50	10	1728	167 635 117	167 635 137	5.334

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.9

table continued next page



d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
40	150	¼	174	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	¼	194	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	¼	224	45	251	39	15	137	37	26	103	M8	23	5.8



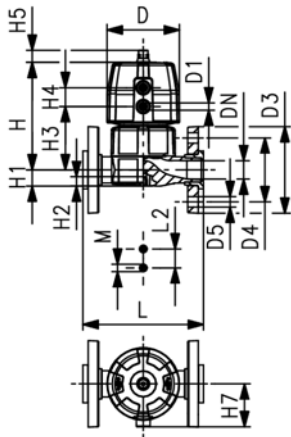
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With backing flanges PP-V metric/BS

Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Double flow rate compared to predecessor
- Flat sealing faces/serrated
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 637 112	167 637 132	1.084
25	20	10	271	167 637 113	167 637 133	1.234
32	25	10	481	167 637 114	167 637 134	2.096
40	32	10	759	167 637 115	167 637 135	3.519
50	40	10	1263	167 637 116	167 637 136	5.327
63	50	10	1728	167 637 117	167 637 137	6.277

d [mm]	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
20	96	⅜	95	65	14	130	25	127	14	12	68	25	16	57	M6
25	96	⅜	105	75	14	150	25	132	18	12	73	25	16	57	M6
32	120	⅜	115	85	14	160	25	167	22	12	93	26	26	69	M6
40	150	¼	140	100	18	180	45	196	26	15	101	36	26	88	M8
50	180	¼	150	110	18	200	45	239	32	15	124	37	26	103	M8
63	180	¼	165	125	18	230	45	251	39	15	137	37	26	103	M8

d [mm]	Lift = Hx [mm]
20	7
25	10
32	13
40	15
50	19
63	23



PROGEF Standard

Diaphragm valve DIASTAR Sixteen

FC (Fail safe to close)

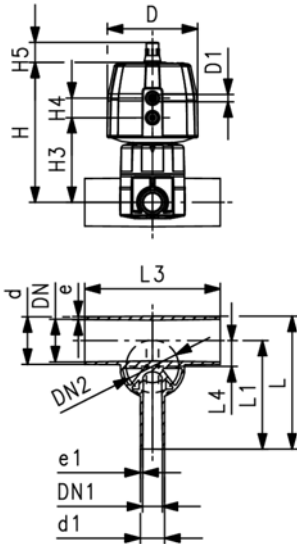
With butt fusion spigots SDR11 metric

Model:

- Material: PP-H
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	20	15	15	15	10	57	167 639 101	167 639 301
25	20	20	15	20	10	89	167 639 103	167 639 303
25	25	20	20	20	10	118	167 639 104	167 639 304
32	20	25	15	20	10	80	167 639 107	167 639 307
32	25	25	20	20	10	105	167 639 108	167 639 308
32	32	25	25	25	10	231	167 639 109	167 639 309
40	20	32	15	25	10	85	167 639 112	167 639 312
50	20	40	15	20	10	86	167 639 118	167 639 318
50	25	40	20	25	10	160	167 639 119	167 639 319
50	32	40	25	25	10	206	167 639 120	167 639 320
63	20	50	15	20	10	84	167 639 125	167 639 325
63	25	50	20	25	10	150	167 639 126	167 639 326
63	32	50	25	25	10	184	167 639 127	167 639 327

d [mm]	D [mm]	D1 [inch]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	H3 [mm]	H4 [mm]	H5 [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	96	1/8	117	96	162	12	130	71	25	16	7	1.9	1.9
25	96	1/8	133	108	162	16	131	72	25	16	10	2.3	1.9
25	96	1/8	133	108	162	16	131	72	25	16	10	2.3	2.3
32	96	1/8	142	120	162	19	135	76	25	16	10	2.9	1.9
32	96	1/8	142	120	162	19	135	76	25	16	10	2.9	2.3
32	120	1/8	145	120	160	19	167	93	26	26	13	2.9	2.9
40	120	1/8	149	128	180	23	175	101	26	26	13	3.7	1.9
50	96	1/8	160	134	180	27	148	90	25	16	10	4.6	1.9
50	120	1/8	160	134	180	28	180	106	26	26	13	4.6	2.3
50	120	1/8	160	134	180	28	180	106	26	26	13	4.6	2.9
63	96	1/8	177	144	180	33	155	96	25	26	10	5.8	1.9
63	120	1/8	177	144	180	35	187	113	26	16	13	5.8	2.3
63	120	1/8	177	144	180	35	187	113	26	26	13	5.8	2.9



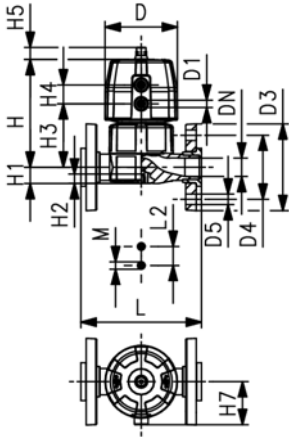
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With backing flanges PP-V Inch ANSI

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
½	15	10	125	167 637 712	167 637 732	1.084
¾	20	10	271	167 637 713	167 637 733	1.234
1	25	10	481	167 637 714	167 637 734	2.096
1 ¼	32	10	759	167 637 715	167 637 735	3.519
1 ½	40	10	1263	167 637 716	167 637 736	5.327
2	50	10	1728	167 637 717	167 637 737	6.277

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
½	96	⅜	95	60	16	130	25	127	14	12	68	25	16	57	M6
¾	96	⅜	105	70	16	150	25	132	18	12	73	25	16	57	M6
1	120	⅜	115	79	16	160	25	167	22	12	93	26	26	69	M6
1 ¼	150	¼	140	89	16	180	45	196	26	15	101	36	26	88	M8
1 ½	180	¼	150	98	16	200	45	239	32	15	124	37	26	103	M8
2	180	¼	165	121	19	230	45	251	39	15	137	37	26	103	M8

Inch	Lift = Hx [mm]
½	7
¾	10
1	13
1 ¼	15
1 ½	19
2	23



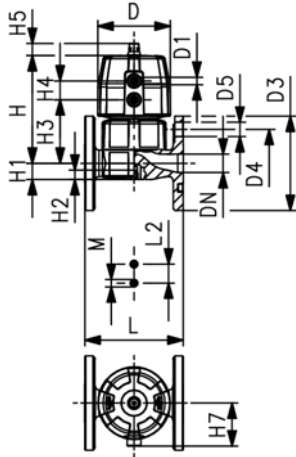
PROGEF Standard Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With fixed flanges PP-H JIS

Model:

- Material: PP-H
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Flat sealing faces/serrated
- Connecting dimension: JIS B2238/39 10K

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



Inch	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
1/2	15	10	125	167 637 912	167 637 932	0.000
3/4	20	10	271	167 637 913	167 637 933	0.000
1	25	10	481	167 637 914	167 637 934	0.000
1 1/4	32	10	759	167 637 915	167 637 935	0.000
1 1/2	40	10	1263	167 637 916	167 637 936	0.000
2	50	10	1728	167 637 917	167 637 937	0.000

Inch	D [mm]	D1_G [inch]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M
1/2	96	1/8	95	70	15	110	25	127	14	12	68	25	16	57	M6
3/4	96	3/8	100	75	15	120	25	132	18	12	73	25	16	57	M6
1	120	1/2	125	90	19	130	25	167	22	12	93	26	26	69	M6
1 1/4	150	3/4	135	100	19	180	45	196	26	15	101	36	26	88	M8
1 1/2	180	1/2	140	105	19	180	45	239	32	15	124	37	26	103	M8
2	180	1/2	155	120	19	210	45	251	39	15	137	37	26	103	M8

Inch	Lift = Hx [mm]
1/2	7
3/4	10
1	13
1 1/4	15
1 1/2	19
2	23

Butterfly Valves Electric

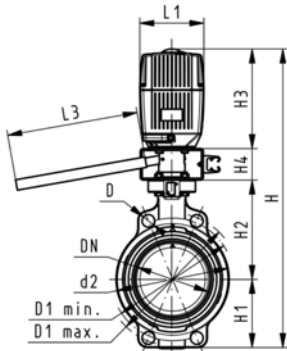
Butterfly valve type 140 PP-H 100-230V With manual override



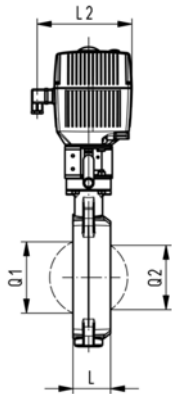
Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- Material: PP-H
- Overall length according to EN 558, ISO 5752

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 140 322	199 140 342	5.607
75	65	2 ½	10	2200	199 140 323	199 140 343	5.699
90	80	3	10	3000	199 140 324	199 140 344	5.829
110	100	4	10	6500	199 140 325	199 140 345	6.341
140	125	5	10	11500	199 140 326	199 140 346	6.789
160	150	6	10	16600	199 140 327	199 140 347	7.579
225	200	8	10	39600	199 140 328	199 140 348	13.299



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180



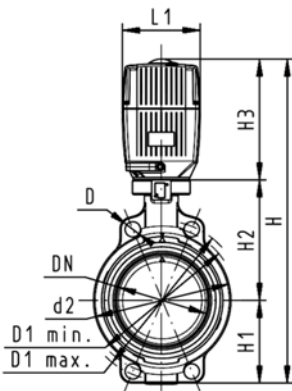
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

Butterfly valve type 140 PP-H 100-230V Without manual override

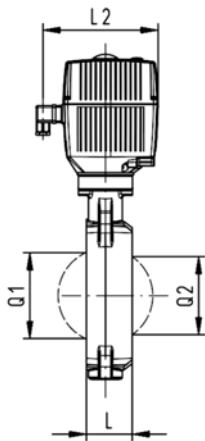


Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- Material: PP-H, DN350-DN600 material PP-R
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- * For DN350-DN600 electric actuator from Valpes is equipped, various options available



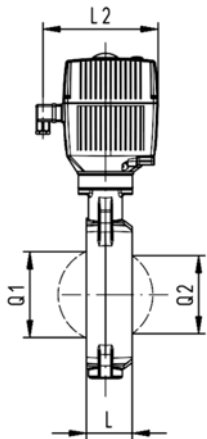
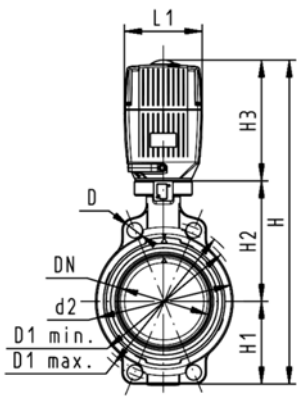
d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 140 362	199 140 382	4.107
75	65	2 ½	10	2200	199 140 363	199 140 383	4.199
90	80	3	10	3000	199 140 364	199 140 384	4.329
110	100	4	10	6500	199 140 365	199 140 385	4.841
140	125	5	10	11500	199 140 366	199 140 386	5.289
160	150	6	10	16600	199 140 367	199 140 387	6.079
225	200	8	10	39600	199 140 368	199 140 388	11.799
280	250	10	6	55200	199 140 369	199 140 389	13.747
315	300	12	4	80000	199 140 370	199 140 390	16.722
* 355	350	14	6	900000	199 140 371	199 140 391	46.180
* 400	400	16	6	115000	199 140 372	199 140 392	63.800
* 450	450	18	5	155000	199 140 373	199 140 393	78.800
* 500	500	20	4	204000	199 140 374	199 140 394	96.200
* 630	600	24	4	265000	199 140 375	199 140 395	153.000



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180
* 355	VS-300	29	445.0	477.0	535	936	268	410	258	129	209	275
* 400	VT-600	29	510.0	540.0	595	1084	300	435	349	169	228	468
* 450	VT-600	32	565.0	578.0	635	1189	320	520	349	179	228	468
* 500	VT-600	32	620.0	635.0	700	1249	350	550	349	190	228	468
* 630	VT-1000	35	725.0	750.0	813	1379	420	610	349	209	228	468

d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253
* 355	325	305
* 400	353	350

table continued next page

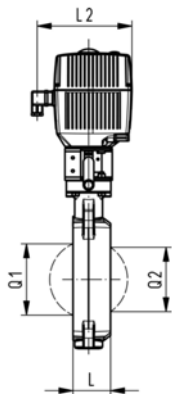
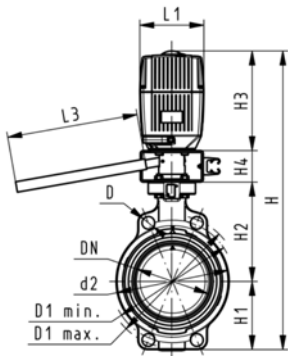


d [mm]	Q1 [mm]	Q2 [mm]
* 450	393	390
* 500	444	440
* 630	530	527

Butterfly valve type 140 PP-H 24V With manual override

Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value (Δp=1 bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 140 402	199 140 422	5.607
75	65	2 ½	10	2200	199 140 403	199 140 423	5.699
90	80	3	10	3000	199 140 404	199 140 424	5.829
110	100	4	10	6500	199 140 405	199 140 425	6.341
140	125	5	10	11500	199 140 406	199 140 426	6.789
160	150	6	10	16600	199 140 407	199 140 427	7.579
225	200	8	10	39600	199 140 408	199 140 428	13.299

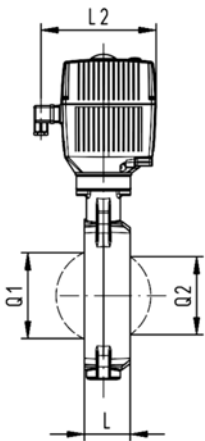
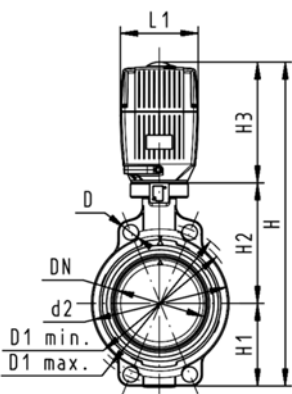
d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	EA-31	19	120.0	125.0	104	460	77	134	188	60	45	122	180
75	EA-31	19	139.7	145.0	115	473	83	140	188	60	46	122	180
90	EA-31	19	150.0	160.0	131	488	89	146	188	60	49	122	180
110	EA-31	19	175.0	190.5	161	520	104	167	188	60	56	122	180
140	EA-31	23	210.0	215.9	187	547	117	181	188	60	64	122	180
160	EA-31	24	241.3	241.3	215	568	130	189	188	60	72	122	180
225	EA-42	23	290.0	295.0	267	635	158	210	208	60	73	122	180

d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	250	40	
75	250	54	35
90	250	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

Butterfly valve type 140 PP-H 24V Without manual override

Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard
- The dimension DN300 on request



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 140 442	199 140 462	4.107
75	65	2 ½	10	2200	199 140 443	199 140 463	4.199
90	80	3	10	3000	199 140 444	199 140 464	4.329
110	100	4	10	6500	199 140 445	199 140 465	4.841
140	125	5	10	11500	199 140 446	199 140 466	5.289
160	150	6	10	16600	199 140 447	199 140 467	6.079
225	200	8	10	39600	199 140 448	199 140 468	11.799
280	250	10	6	55200	199 140 449	199 140 469	13.747
315	300	12	4	80000	199 140 450	199 140 470	16.722

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]
63	EA-31	19	120.0	125.0	104	400	77	134	188	45	122	180	40
75	EA-31	19	139.7	145.0	115	413	83	140	188	46	122	180	54
90	EA-31	19	150.0	160.0	131	428	89	146	188	49	122	180	67
110	EA-31	19	175.0	190.5	161	460	104	167	188	56	122	180	88
140	EA-31	23	210.0	215.9	187	487	117	181	188	64	122	180	113
160	EA-31	24	241.3	241.3	215	508	130	189	188	72	122	180	139
225	EA-42	23	290.0	295.0	267	575	158	210	208	73	122	180	178
280	EA-42	25	353.0	362.0	329	677	205	264	208	113	122	180	210
315	EA-42	25	400.0	432.0	379	721	228	285	208	113	122	180	256

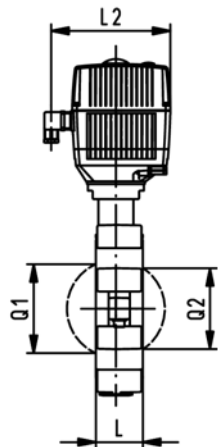
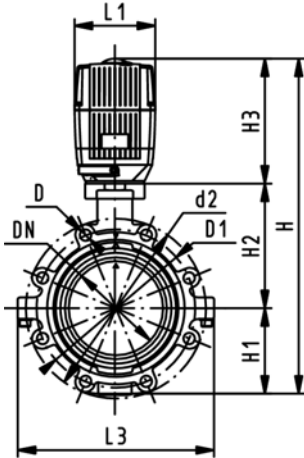
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169
280	207
315	253



PROGEF Standard Lugstyle butterfly valve type 141 100-230V Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 141 362	199 141 382	6.193
75	65	2 ½	10	2200	199 141 363	199 141 383	6.535
90	80	3	10	3000	199 141 364	199 141 384	7.540
110	100	4	10	6500	199 141 365	199 141 385	8.925
140	125	5	10	11500	199 141 366	199 141 386	10.755
160	150	6	10	16600	199 141 367	199 141 387	12.539
225	200	8	10	39600	199 141 368	199 141 388	21.747

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

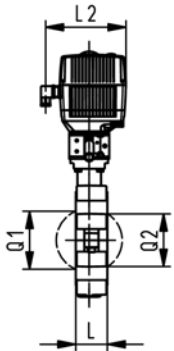
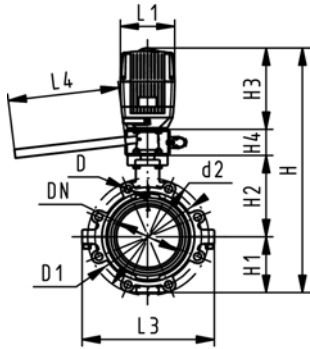
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169



PROGEF Standard Lugstyle butterfly valve type 141 100-230V With manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 141 322	199 141 342	7.693
75	65	2 ½	10	2200	199 141 323	199 141 343	8.035
90	80	3	10	3000	199 141 324	199 141 344	9.040
110	100	4	10	6500	199 141 325	199 141 345	10.425
140	125	5	10	11500	199 141 326	199 141 346	12.255
160	150	6	10	16600	199 141 327	199 141 347	14.039
225	200	8	10	39600	199 141 328	199 141 348	23.247

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

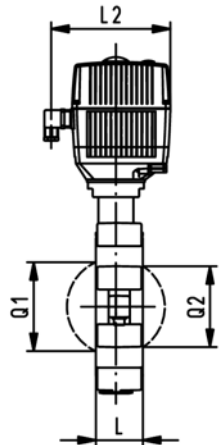
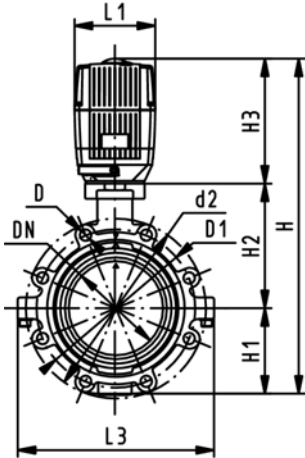
d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169

PROGEF Standard Lugstyle butterfly valve type 141 24V Without manual override



Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 141 442	199 141 462	6.193
75	65	2 ½	10	2200	199 141 443	199 141 463	6.535
90	80	3	10	3000	199 141 444	199 141 464	7.540
110	100	4	10	6500	199 141 445	199 141 465	8.925
140	125	5	10	11500	199 141 446	199 141 466	10.755
160	150	6	10	16600	199 141 447	199 141 467	12.539
225	200	8	10	39600	199 141 448	199 141 468	21.747

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	EA-31	M16	125	150	399	77	134	188	45	122	180	150	40
75	EA-31	M16	145	170	411	83	140	188	46	122	180	160	54
90	EA-31	M16	160	184	423	89	146	188	49	122	180	205	67
110	EA-31	M16	180	216	459	104	167	188	56	122	180	244	88
140	EA-31	M16	210	246	486	117	181	188	64	122	180	272	113
160	EA-31	M20	240	273	507	130	189	188	72	122	180	297	139
225	EA-42	M20	295	334	576	158	210	208	73	122	180	360	178

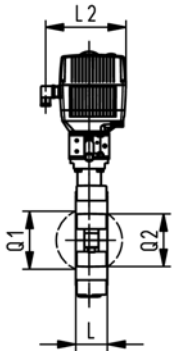
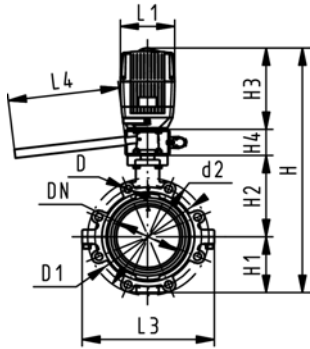
d [mm]	Q2 [mm]
63	
75	35
90	50
110	74
140	97
160	123
225	169



PROGEF Standard Lugstyle butterfly valve type 141 24V With manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 141 402	199 141 422	7.693
75	65	2 ½	10	2200	199 141 403	199 141 423	8.035
90	80	3	10	3000	199 141 404	199 141 424	9.040
110	100	4	10	6500	199 141 405	199 141 425	10.425
140	125	5	10	11500	199 141 406	199 141 426	12.255
160	150	6	10	16600	199 141 407	199 141 427	14.039
225	200	8	10	39600	199 141 408	199 141 428	23.247

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
63	EA-31	M16	125	150	459	77	134	188	60	45	122	180	150
75	EA-31	M16	145	170	471	83	140	188	60	46	122	180	160
90	EA-31	M16	160	184	483	89	146	188	60	49	122	180	205
110	EA-31	M16	180	216	519	104	167	188	60	56	122	180	244
140	EA-31	M16	210	246	546	117	181	188	60	64	122	180	272
160	EA-31	M20	240	273	567	130	189	188	60	72	122	180	297
225	EA-42	M20	295	334	636	158	210	208	60	73	122	180	360

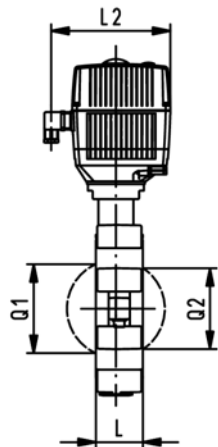
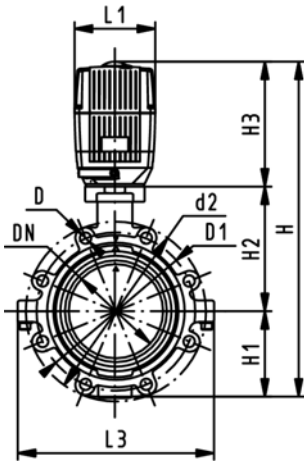
d [mm]	L4 [mm]	Q1 [mm]	Q2 [mm]
63	200	40	
75	200	54	35
90	200	67	50
110	250	88	74
140	250	113	97
160	250	139	123
225	250	178	169



PROGEF Standard Lugstyle butterfly valve type 142 100-230V Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 142 362	199 142 382	6.193
2 ½	65	75	10	2200	199 142 363	199 142 383	6.535
3	80	90	10	3000	199 142 364	199 142 384	6.911
4	100	110	10	6500	199 142 365	199 142 385	8.925
5	125	140	10	11500	199 142 366	199 142 386	10.755
6	150	160	10	16600	199 142 367	199 142 387	12.539
8	200	225	10	39600	199 142 368	199 142 388	21.747

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

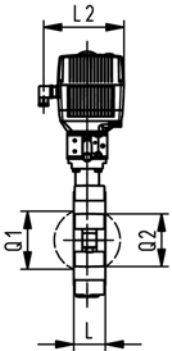
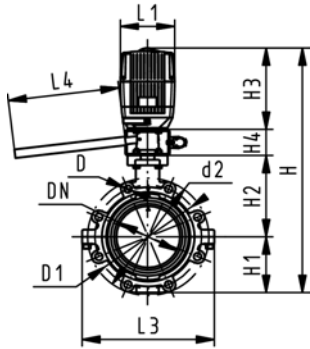
Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169



PROGEF Standard Lugstyle butterfly valve type 142 100-230V With manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 100-230 V, 50-60 Hz
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 142 322	199 142 342	6.193
2 ½	65	75	10	2200	199 142 323	199 142 343	6.535
3	80	90	10	3000	199 142 324	199 142 344	6.911
4	100	110	10	6500	199 142 325	199 142 345	8.925
5	125	140	10	11500	199 142 326	199 142 346	10.755
6	150	160	10	16600	199 142 327	199 142 347	12.539
8	200	225	10	39600	199 142 328	199 142 348	21.747

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

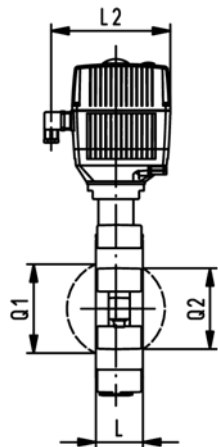
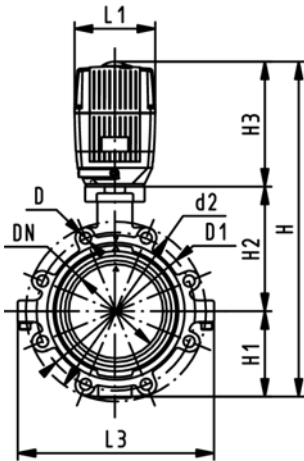
Inch	L4 [mm]	Q1 [mm]	Q2 [mm]
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169



PROGEF Standard Lugstyle butterfly valve type 142 24V Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 142 442	199 142 462	6.193
2 ½	65	75	10	2200	199 142 443	199 142 463	6.535
3	80	90	10	3000	199 142 444	199 142 464	6.911
4	100	110	10	6500	199 142 445	199 142 465	8.925
5	125	140	10	11500	199 142 446	199 142 466	10.755
6	150	160	10	16600	199 142 447	199 142 467	12.539
8	200	225	10	39600	199 142 448	199 142 468	21.747

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	399	77	134	188	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	411	83	140	188	46	122	180	160
3	EA-31	UNC 5/8	153	177	423	89	146	188	49	122	180	175
4	EA-31	UNC 5/8	191	216	459	104	167	188	56	122	180	244
5	EA-31	UNC 3/4	216	246	486	117	181	188	64	122	180	272
6	EA-31	UNC 3/4	242	273	507	130	189	188	72	122	180	297
8	EA-42	UNC 3/4	299	334	576	158	210	208	73	122	180	360

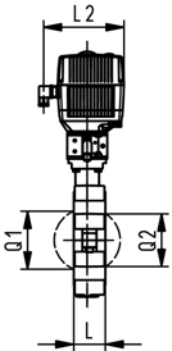
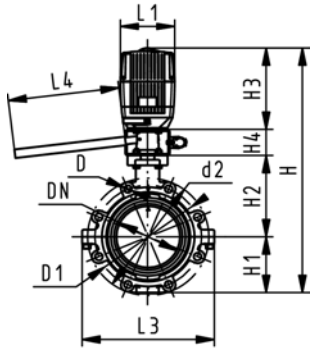
Inch	Q1 [mm]	Q2 [mm]
2	40	
2 ½	54	35
3	67	50
4	88	74
5	113	97
6	139	123
8	178	169



PROGEF Standard Lugstyle butterfly valve type 142 24V With manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Voltage 24 V AC/DC
- Control time 15 s/90°<) EA31
- Control time 25s/90°<) EA42
- Control range 90°<)
- Actuator with integrated emergency manual override standard



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 142 402	199 142 422	6.193
2 ½	65	75	10	2200	199 142 403	199 142 423	6.535
3	80	90	10	3000	199 142 404	199 142 424	6.911
4	100	110	10	6500	199 142 405	199 142 425	8.925
5	125	140	10	11500	199 142 406	199 142 426	10.755
6	150	160	10	16600	199 142 407	199 142 427	12.539
8	200	225	10	39600	199 142 408	199 142 428	21.747

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
2	EA-31	UNC 5/8	121	150	459	77	134	188	60	45	122	180	150
2 ½	EA-31	UNC 5/8	140	170	471	83	140	188	60	46	122	180	160
3	EA-31	UNC 5/8	153	177	483	89	146	188	60	49	122	180	175
4	EA-31	UNC 5/8	191	216	519	104	167	188	60	56	122	180	244
5	EA-31	UNC 3/4	216	246	546	117	181	188	60	64	122	180	272
6	EA-31	UNC 3/4	242	273	567	130	189	188	60	72	122	180	297
8	EA-42	UNC 3/4	299	334	636	158	210	208	60	73	122	180	360

Inch	L4 [mm]	Q1 [mm]	Q2 [mm]
2	200	40	
2 ½	200	54	35
3	200	67	50
4	250	88	74
5	250	113	97
6	250	139	123
8	250	178	169

Butterfly Valves Pneumatic

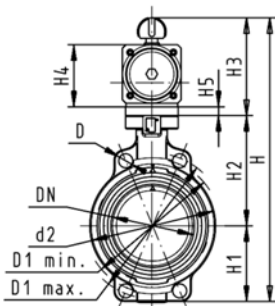
Butterfly valve type 240 PP-H FC (Fail safe to close) Without manual override



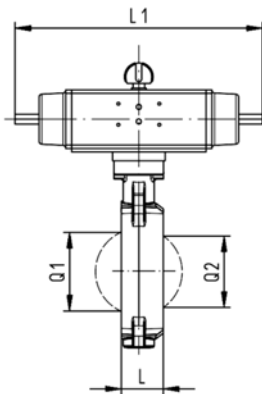
Model:

- Material: PP-H, DN350-DN600 material PP-R
- * For DN350-DN600 pneumatic actuator supplied by Revac
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Control range 90°<

d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 240 282	199 240 302	3.147
75	65	2 ½	10	2200	199 240 283	199 240 303	3.239
90	80	3	10	3000	199 240 284	199 240 304	3.369
110	100	4	10	6500	199 240 285	199 240 305	5.079
140	125	5	10	11500	199 240 286	199 240 306	6.529
160	150	6	10	16600	199 240 287	199 240 307	9.640
225	200	8	10	39600	199 240 288	199 240 308	13.299
280	250	10	8	55200	199 240 289	199 240 309	26.888
315	300	12	8	80000	199 240 290	199 240 310	33.459



d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FC	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FC	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FC	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FC	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FC	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FC	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FC	23	290.0	295.0	267	529	158	210	161	118		73	452
280	PA-65 FC	25	353.0	362.0	329	808	205	264	191	148		113	648
315	PA-70 FC	25	400.0	432.0	379	866	228	285	196	157		113	663



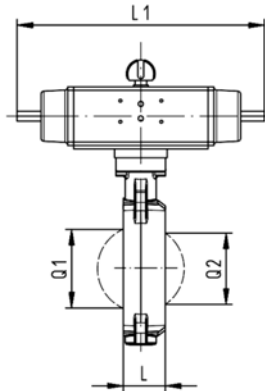
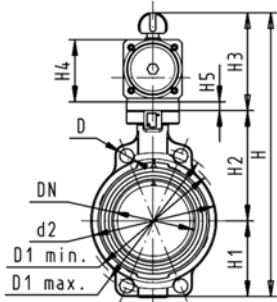
d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



Butterfly valve type 240 PP-H FO (Fail safe to open) Without manual override

Model:

- Material: PP-H
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 240 322	199 240 342	3.147
75	65	2 ½	10	2200	199 240 323	199 240 343	3.239
90	80	3	10	3000	199 240 324	199 240 344	3.369
110	100	4	10	6500	199 240 325	199 240 345	5.079
140	125	5	10	11500	199 240 326	199 240 346	6.529
160	150	6	10	16600	199 240 327	199 240 347	9.640
225	200	8	10	39600	199 240 328	199 240 348	13.299
280	250	10	8	55200	199 240 329	199 240 349	30.484
315	300	12	8	80000	199 240 330	199 240 350	33.459

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-30 FO	19	120.0	125.0	104	327	77	134	117	70	15	45	276
75	PA-30 FO	19	139.7	145.0	115	340	83	140	117	70	15	46	276
90	PA-35 FO	19	150.0	160.0	131	361	89	146	126	78	15	49	326
110	PA-40 FO	19	175.0	190.5	161	400	104	167	129	86		56	370
140	PA-45 FO	23	210.0	215.9	187	436	117	181	139	96		64	411
160	PA-50 FO	24	241.3	241.3	215	468	130	189	149	106		72	423
225	PA-55 FO	23	290.0	295.0	267	529	158	210	161	118		73	452
280	PA-70 FO	25	353.0	362.0	329	808	205	264	191	148		113	648
315	PA-70 FO	25	400.0	432.0	379	866	228	285	196	157		113	663

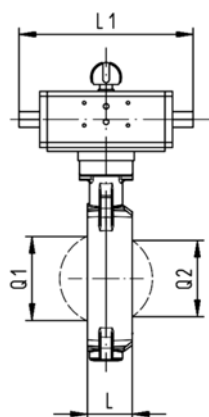
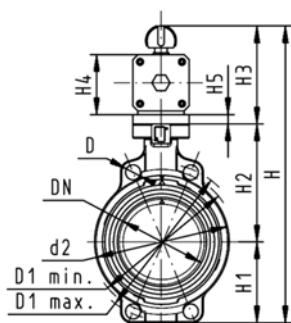
d [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	65	40	
75	65	54	35
90	72	67	50
110	80	88	74
140	90	113	97
160	100	139	123
225	112	178	169
280	137	210	207
315	145	256	253



Butterfly valve type 240 PP-H DA (Double acting) Without manual override

Model:

- * For DN350-DN600 pneumatic actuator supplied by Revac
- Material: PP-H, DN350-DN600 material PP-R
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 240 362	199 240 382	1.997
75	65	2 ½	10	2200	199 240 363	199 240 383	2.089
90	80	3	10	3000	199 240 364	199 240 384	2.700
110	100	4	10	6500	199 240 365	199 240 385	3.331
140	125	5	10	11500	199 240 366	199 240 386	3.779
160	150	6	10	16600	199 240 367	199 240 387	6.119
225	200	8	10	39600	199 240 368	199 240 388	7.299
280	250	10	8	55200	199 240 369	199 240 389	18.188
315	300	12	8	80000	199 240 370	199 240 390	24.263
* 355	350	14	6	90000	199 240 371	199 240 391	40.600
* 400	400	16	6	115000	199 240 372	199 240 392	62.100
* 450	450	18	5	155000	199 240 373	199 240 393	77.100
* 500	500	20	4	204000	199 240 374	199 240 394	92.100
* 630	600	24	4	265000	199 240 375	199 240 395	127.100

d [mm]	Actuator unit type	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]
63	PA-35 DA	19	120.0	125.0	104	317	77	134	107	60	15	45	177
75	PA-35 DA	19	139.7	145.0	115	330	83	140	107	60	15	46	177
90	PA-40 DA	19	150.0	160.0	131	348	89	146	113	66	15	49	190
110	PA-45 DA	19	175.0	190.5	161	372	104	167	102	71		56	235
140	PA-45 DA	23	210.0	215.9	187	408	117	181	111	78		64	235
160	PA-55 DA	24	241.3	241.3	215	448	130	189	129	86		72	279
225	PA-55 DA	23	290.0	295.0	267	507	158	210	139	96		73	279
280	PA-65 DA	25	353.0	362.0	329	748	205	264	161	118		113	350
315	PA-70 DA	25	400.0	432.0	379	816	228	285	173	130		113	381
* 355	AP 5	29	445.0	477.0	535	863	268	410	185	155	27	129	360
* 400	AP 5.5	29	510.0	540.0	595	941	300	435	206	176	27	169	380
* 450	AP 5.5	32	565.0	578.0	635	1046	320	520	206	176	36	179	380
* 500	AP 6	32	620.0	635.0	700	1130	350	550	230	200	36	190	462
* 630	AP8	35	725.0	750.0	813	1330	420	610	300	250	36	209	530

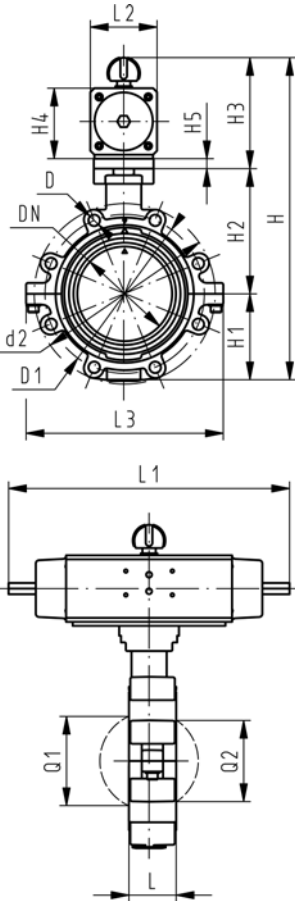
d [mm]	Q1 [mm]	Q2 [mm]
63	40	
75	54	35
90	67	50
110	88	74
140	113	97
160	139	123
225	178	169
280	210	207
315	256	253
* 355	325	305
* 400	353	350
* 450	393	390
* 500	444	440
* 630	530	527



PROGEF Standard Lugstyle butterfly valve type 241 FC (Fail safe to close) Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 241 282	199 241 302	5.233
75	65	2 1/2	10	2200	199 241 283	199 241 303	5.575
90	80	3	10	3000	199 241 284	199 241 304	6.580
110	100	4	10	6500	199 241 285	199 241 305	9.163
140	125	5	10	11500	199 241 286	199 241 306	11.995
160	150	6	10	16600	199 241 287	199 241 307	16.100
225	200	8	10	39600	199 241 288	199 241 308	23.247

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FC	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FC	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FC	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FC	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FC	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FC	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FC	M20	295	334	529	158	210	161	118		73	452	112

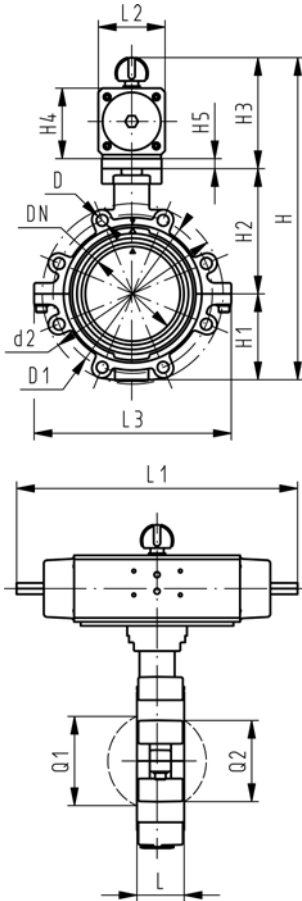
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



PROGEF Standard Lugstyle butterfly valve type 241 FO (Fail safe to open) Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 241 322	199 241 342	5.233
75	65	2 ½	10	2200	199 241 323	199 241 343	5.575
90	80	3	10	3000	199 241 324	199 241 344	6.580
110	100	4	10	6500	199 241 325	199 241 345	9.163
140	125	5	10	11500	199 241 326	199 241 346	11.995
160	150	6	10	16600	199 241 327	199 241 347	16.100
225	200	8	10	39600	199 241 328	199 241 348	23.247

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-30 FO	M16	125	150	328	77	134	117	70	15	45	276	65
75	PA-30 FO	M16	145	170	340	83	140	117	70	15	46	276	65
90	PA-35 FO	M16	160	184	361	89	146	126	78	15	49	326	72
110	PA-40 FO	M16	180	216	400	104	167	129	86		56	370	80
140	PA-45 FO	M16	210	246	437	117	181	139	96		64	411	90
160	PA-50 FO	M20	240	273	468	130	189	149	106		72	423	100
225	PA-55 FO	M20	295	334	529	158	210	161	118		73	452	112

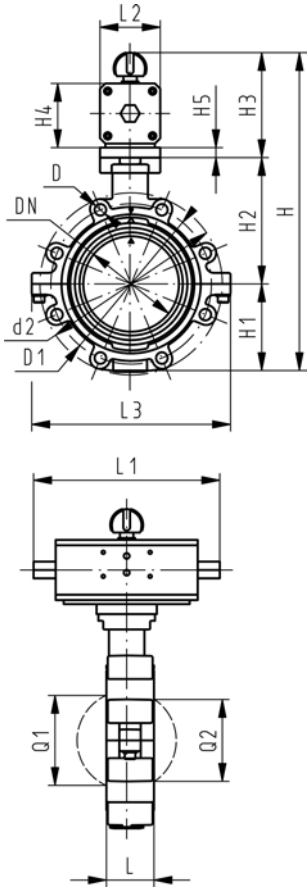
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



PROGEF Standard Lugstyle butterfly valve type 241 DA (Double acting) Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	199 241 362	199 241 382	4.083
75	65	2 1/2	10	2200	199 241 363	199 241 383	4.425
90	80	3	10	3000	199 241 364	199 241 384	5.911
110	100	4	10	6500	199 241 365	199 241 385	7.415
140	125	5	10	11500	199 241 366	199 241 386	9.245
160	150	6	10	16600	199 241 367	199 241 387	12.579
225	200	8	10	39600	199 241 368	199 241 388	17.247

d [mm]	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
63	PA-35 DA	M16	125	150	318	77	134	107	60	15	45	177	55
75	PA-35 DA	M16	145	170	330	83	140	107	60	15	46	177	55
90	PA-40 DA	M16	160	184	348	89	146	113	66	15	49	190	60
110	PA-45 DA	M16	180	216	373	104	167	102	71		56	235	65
140	PA-45 DA	M16	210	246	409	117	181	111	78		64	235	72
160	PA-55 DA	M20	240	273	448	130	189	129	86		72	279	80
225	PA-55 DA	M20	295	334	507	158	210	139	96		73	279	90

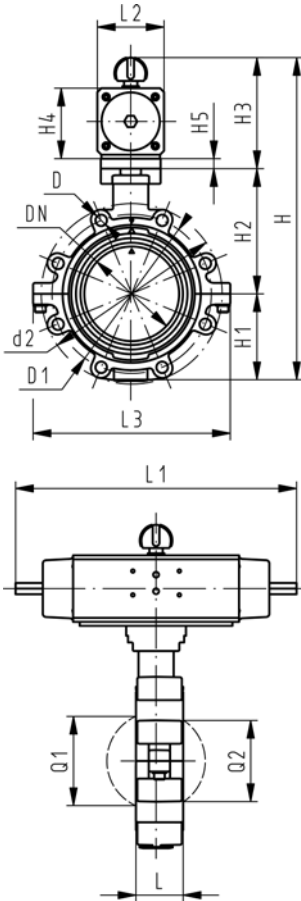
d [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	40	
75	160	54	35
90	205	67	50
110	244	88	74
140	272	113	97
160	297	139	123
225	360	178	169



PROGEF Standard Lugstyle butterfly valve type 242 FC (Fail safe to close) Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 242 282	199 242 302	5.233
2 ½	65	75	10	2200	199 242 283	199 242 303	5.575
3	80	90	10	3000	199 242 284	199 242 304	5.951
4	100	110	10	6500	199 242 285	199 242 305	9.163
5	125	140	10	11500	199 242 286	199 242 306	11.995
6	150	160	10	16600	199 242 287	199 242 307	16.100
8	200	225	10	39600	199 242 288	199 242 308	23.247

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FC	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FC	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FC	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FC	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FC	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FC	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FC	UNC 3/4	299	334	529	158	210	161	118		73	452	112

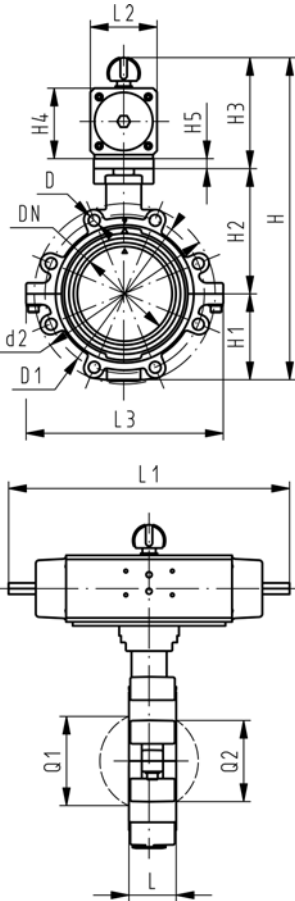
Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169



PROGEF Standard Lugstyle butterfly valve type 242 FO (Fail safe to open) Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 242 322	199 242 342	5.233
2 ½	65	75	10	2200	199 242 323	199 242 343	5.575
3	80	90	10	3000	199 242 324	199 242 344	5.951
4	100	110	10	6500	199 242 325	199 242 345	9.163
5	125	140	10	11500	199 242 326	199 242 346	11.995
6	150	160	10	16600	199 242 327	199 242 347	16.100
8	200	225	10	39600	199 242 328	199 242 348	23.247

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-30 FO	UNC 5/8	121	150	328	77	134	117	70	15	45	276	65
2 ½	PA-30 FO	UNC 5/8	140	170	340	83	140	117	70	15	46	276	65
3	PA-35 FO	UNC 5/8	153	177	361	89	146	126	78	15	49	326	72
4	PA-40 FO	UNC 5/8	191	216	400	104	167	129	86		56	370	80
5	PA-45 FO	UNC 3/4	216	246	437	117	181	139	96		64	411	90
6	PA-50 FO	UNC 3/4	242	273	468	130	189	149	106		72	423	100
8	PA-55 FO	UNC 3/4	299	334	529	158	210	161	118		73	452	112

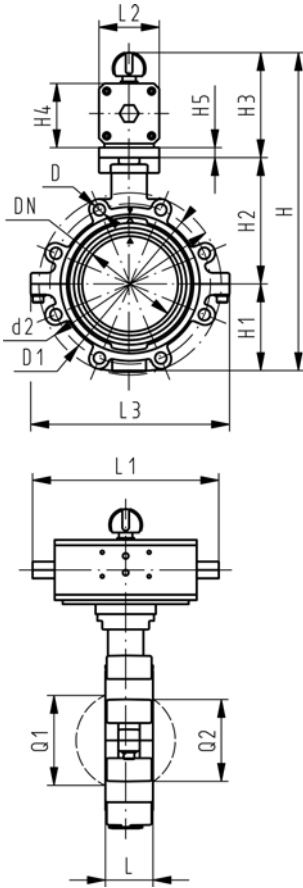
Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169



PROGEF Standard Lugstyle butterfly valve type 242 DA (Double acting) Without manual override

Model:

- Material: PP-H
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752
- Control range 90°<



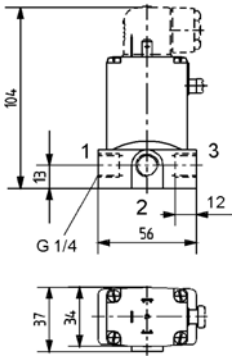
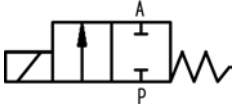
Inch	DN [mm]	d [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	50	63	10	1470	199 242 362	199 242 382	4.083
2 ½	65	75	10	2200	199 242 363	199 242 383	4.425
3	80	90	10	3000	199 242 364	199 242 384	5.282
4	100	110	10	6500	199 242 365	199 242 385	7.415
5	125	140	10	11500	199 242 366	199 242 386	9.245
6	150	160	10	16600	199 242 367	199 242 387	12.579
8	200	225	10	39600	199 242 368	199 242 388	17.247

Inch	Actuator unit type	D	D1 [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]
2	PA-35 DA	UNC 5/8	121	150	318	77	134	107	60	15	45	177	55
2 ½	PA-35 DA	UNC 5/8	140	170	330	83	140	107	60	15	46	177	55
3	PA-40 DA	UNC 5/8	153	177	348	89	146	113	66	15	49	190	60
4	PA-45 DA	UNC 5/8	191	216	373	104	167	102	71		56	235	65
5	PA-45 DA	UNC 3/4	216	246	409	117	181	111	78		64	235	72
6	PA-55 DA	UNC 3/4	242	273	448	130	189	129	86		72	279	80
8	PA-55 DA	UNC 3/4	299	334	507	158	210	139	96		73	279	90

Inch	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	40	
2 ½	160	54	35
3	175	67	50
4	244	88	74
5	272	113	97
6	297	139	123
8	360	178	169

Solenoid valves

PROGEF Standard
Solenoid valve type 166
Function A straight-through valve 2/2
ways
Nominal voltage 24V DC
With G 1/4 line connection

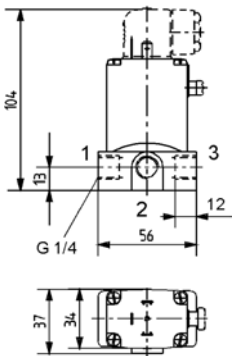
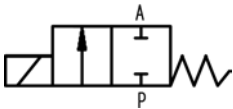


Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3	1/4	A	0.0 - 8.0	4	199 166 000	199 166 005	0.400
4	1/4	A	0.0 - 4.0	5	199 166 001	199 166 006	0.400
5	1/4	A	0.0 - 3.0	6	199 166 002	199 166 007	0.400

PROGEF Standard
Solenoid valve type 166
Function A straight-through valve 2/2
ways
Nominal voltage 230V 50Hz $\pm 10\%$
With G 1/4 line connection



Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65

DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3	1/4	A	0.0 - 10.0	4	199 166 010	199 166 015	0.400
4	1/4	A	0.0 - 5.0	5	199 166 011	199 166 016	0.400
5	1/4	A	0.0 - 4.5	6	199 166 012	199 166 017	0.400

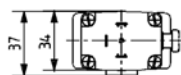
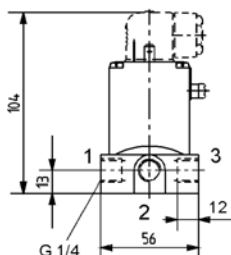


PROGEF Standard
Solenoid valve type 166
Function E mixing valve 3/2 ways
Nominal voltage 24V DC
With G 1/4 line connection



Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3	¼	E	0.0 - 4.0	4	199 166 150	199 166 155	0.400
4	¼	E	0.0 - 2.0	5	199 166 151	199 166 156	0.400

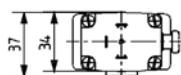
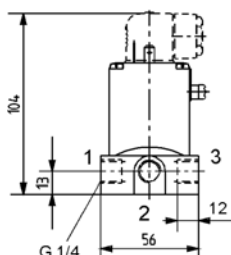


PROGEF Standard
Solenoid valve type 166
Function E mixing valve 3/2 ways
Nominal voltage 230V 50Hz $\pm 10\%$
With G 1/4 line connection



Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
3	¼	E	0.0 - 6.0	4	199 166 160	199 166 165	0.400
4	¼	E	0.0 - 3.0	5	199 166 161	199 166 166	0.400

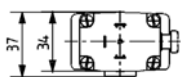
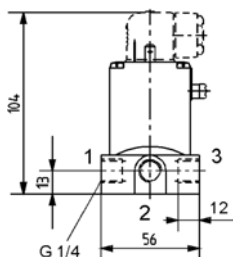
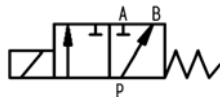


PROGEF Standard
Solenoid valve type 166
Function F distribution valve 3/2 ways
Nominal voltage 24V DC
With G 1/4 line connection



Model:

- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
4	1/4	F	0.0 - 4.0	5	199 166 201	199 166 206	0.400

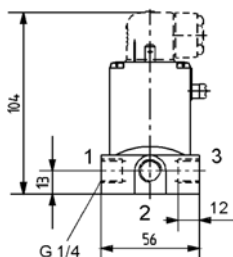
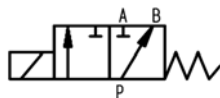


PROGEF Standard
Solenoid valve type 166
Function F distribution valve 3/2 ways
Nominal voltage 230V 50Hz $\pm 10\%$
With G 1/4 line connection



Model:

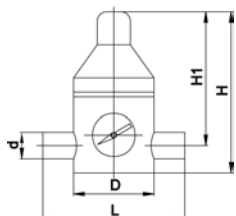
- Material: PP-H
- With manual override
- Electrical connection: cable plug
- Protection class IP 65



DN [mm]	D1_G [inch]	Function	PN [bar]	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
4	1/4	F	0.0 - 5.0	5	199 166 211	199 166 216	0.400

Process Control Valves

PROGEF Standard Pressure reducing valve type V182 With fusion spigots metric

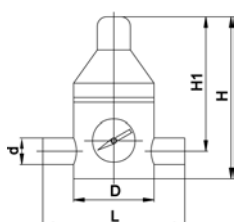


Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 621	199 041 631	0.540	70	134	130	100
20	15	0.5 - 10	199 041 622	199 041 632	0.540	70	134	130	100
25	20	0.5 - 10	199 041 623	199 041 633	1.020	100	174	180	134
32	25	0.5 - 10	199 041 624	199 041 634	1.300	100	174	180	134
40	32	0.5 - 10	199 041 625	199 041 635	2.240	130	224	230	175
50	40	0.5 - 10	199 041 626	199 041 636	2.240	130	224	230	175

Pressure reducing valve type V 82 PP-H With fusion spigots metric

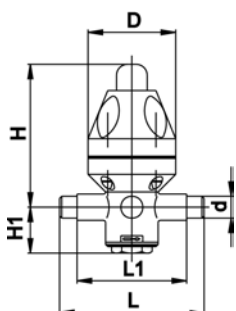


Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 032	199 041 042	0.550	70	134	130	100
20	15	0.5 - 10	199 041 033	199 041 043	0.550	70	134	130	100
25	20	0.5 - 10	199 041 034	199 041 044	1.030	100	174	180	134
32	25	0.5 - 10	199 041 035	199 041 045	1.300	100	174	180	134
40	32	0.5 - 10	199 041 036	199 041 046	2.240	130	224	230	175
50	40	0.5 - 10	199 041 037	199 041 047	2.240	130	224	230	175

PROGEF Standard Pressure reducing valve type V782 With fusion spigots metric



Model:

- Material: PP-H

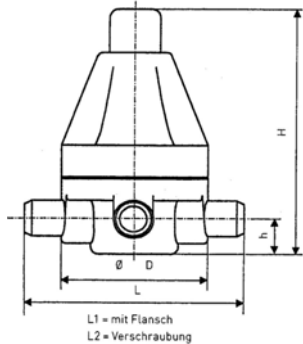
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 072	199 041 078	0.450	83	134	102	138	48
20	15	0.5 - 10	199 041 073	199 041 079	0.460	83	134	102	138	48
25	20	0.5 - 10	199 041 074	199 041 080	1.240	113	154	110	205	65
32	25	0.5 - 10	199 041 075	199 041 081	1.250	113	154	110	205	65
40	32	0.5 - 10	199 041 076	199 041 082	3.910	165	224	162	248	95
50	40	0.5 - 10	199 041 077	199 041 083	3.930	165	224	162	248	95



PROGEF Standard Pressure relief valve type V185 With fusion spigots metric

Model:

- Material: PP-H



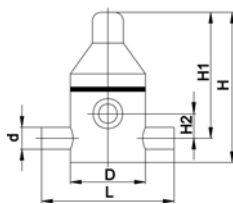
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 367	199 041 337	0.300	83	134	137	20
20	15	0.5 - 10	199 041 368	199 041 338	0.300	83	134	137	20
25	20	0.5 - 10	199 041 369	199 041 339	0.300	83	134	137	20
32	25	0.5 - 10	199 041 370	199 041 340	0.900	112	174	199	27
40	32	0.5 - 10	199 041 371	199 041 341	0.900	112	174	199	43
50	40	0.5 - 10	199 041 372	199 041 342	4.400	165	224	290	43
63	50	0.5 - 10	199 041 373	199 041 343	4.500	165	244	290	43



PROGEF Standard Pressure relief valve type V85 With fusion spigots metric

Model:

- Material: PP-H



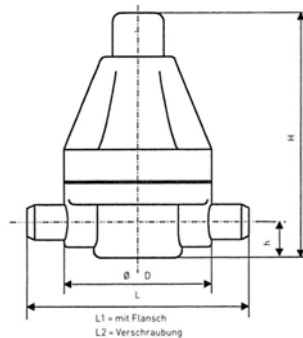
d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]
75	65	1.0 - 6	199 041 926	199 041 895	6.300	180	284	295	250	70
90	80	1.0 - 6	199 041 893	199 041 896	9.500	200	300	400	340	95
110	100	1.0 - 4	199 041 894	199 041 897	19.900	250	380	475	405	110



PROGEF Standard Pressure retaining valve type V186 With fusion spigots metric

Model:

- Material: PP-H



d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 386	199 041 316	0.300	83	134	137	20
20	15	0.5 - 10	199 041 387	199 041 317	0.300	83	134	137	20
25	20	0.5 - 10	199 041 388	199 041 318	0.300	83	134	137	20
32	25	0.5 - 10	199 041 389	199 041 319	0.900	112	174	199	27
40	32	0.5 - 10	199 041 390	199 041 320	0.900	112	174	199	43
50	40	0.5 - 10	199 041 391	199 041 321	4.400	165	224	290	43
63	50	0.5 - 10	199 041 392	199 041 322	4.500	165	244	290	43

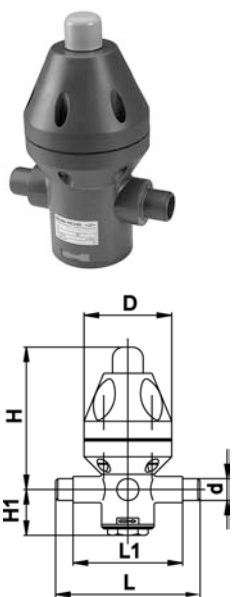


PROGEF Standard Pressure retaining valve type V86 With fusion spigots metric

Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
75	65	0.2 - 4	199 041 882	199 041 887	5.900	180	284	275	230
75	65	1.0 - 6	199 041 883	199 041 888	5.900	180	284	275	230
90	80	0.2 - 4	199 041 884	199 041 889	12.900	250	360	410	320
90	80	1.0 - 6	199 041 885	199 041 890	12.900	250	360	410	320
110	100	1.0 - 4	199 041 886	199 041 891	14.500	250	380	485	415



PROGEF Standard Pressure retaining valve type V786 With fusion spigots metric

Model:

- Material: PP-H

d [mm]	DN [mm]	Pressure range [bar]	EPDM Code	PTFE Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]
16	10	0.5 - 10	199 041 102	199 041 108	0.450	83	134	102	138	38
20	15	0.5 - 10	199 041 103	199 041 109	0.450	83	134	102	138	38
25	20	0.5 - 10	199 041 104	199 041 110	1.280	112	154	110	205	55
32	25	0.5 - 10	199 041 105	199 041 111	1.280	112	154	110	205	55
40	32	0.5 - 4	199 041 106	199 041 112	3.480	165	224	162	248	85
50	40	0.5 - 4	199 041 107	199 041 113	3.480	165	224	162	248	85



PROGEF Standard Gauge guard type Z700 With manometer 0-10 bar

Model:

- Material: PP-H

d [mm]	PTFE Code	kg	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	199 041 002	0.250	¼	72	63	129	71	15
32	199 041 003	0.540	½	100	100	210	90	22

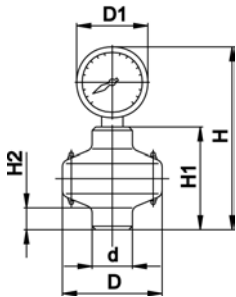


PROGEF Standard Gauge guard type Z700 With manometer 0-6 bar

Model:

- Material: PP-H

d [mm]	PTFE Code	kg	G_R	D [mm]	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]
25	199 041 294	0.250	¼	72	63	129	71	15
32	199 041 295	0.540	½	100	100	210	90	22

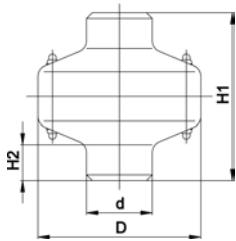


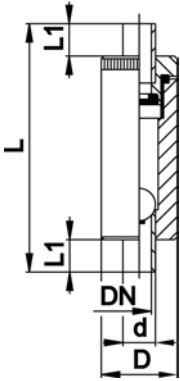
PROGEF Standard Gauge guard type Z701 Without manometer

Model:

- Material: PP-H

d [mm]	PTFE Code	kg	G_R	D [mm]	H1 [mm]	H2 [mm]
25	199 041 008	0.100	¼	72	71	15
32	199 041 009	0.170	½	100	90	22



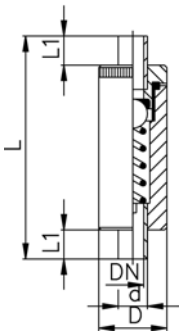


PROGEF Standard Ventilating and bleed valve type V91 With fusion spigots metric

Model:

- Material: PP-H

d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	L1 [mm]
16	10	10	199 041 247	0.070	35	114	14
20	15	10	199 041 248	0.100	40	124	16
25	20	10	199 041 249	0.140	45	144	19
32	25	10	199 041 250	0.200	55	154	22
40	32	10	199 041 251	0.390	70	174	26
50	40	10	199 041 252	0.500	80	194	31
63	50	10	199 041 253	0.910	95	224	38
75	65	10	199 041 254	1.360	115	284	44
90	80	10	199 041 255	2.300	150	300	51



PROGEF Standard Ventilating valve type V95 With fusion spigots metric

Model:

- Material: PP-H

d [mm]	DN [mm]	PN	FPM Code	kg	D [mm]	L [mm]	L1 [mm]
16	10	10	199 041 274	0.070	35	114	14
20	15	10	199 041 275	0.100	40	124	16
25	20	10	199 041 276	0.140	45	144	19
32	25	10	199 041 277	0.200	55	154	22
40	32	10	199 041 278	0.390	70	174	26
50	40	10	199 041 279	0.500	80	194	31
63	50	10	199 041 280	0.910	95	224	38
75	65	10	199 041 281	1.360	115	284	44
90	80	10	199 041 282	2.300	150	300	51

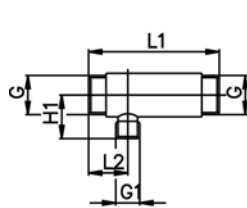


PROGEF Standard Water jet suction pump type P20

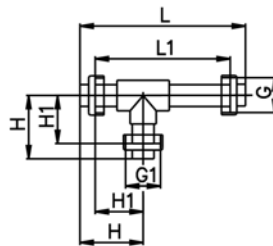
Model:

- Material: PP-H
- DN 10-20: BSP parallel female thread
- DN 25-50: Fusion socket metric
- DN 65-80: Fusion spigot metric

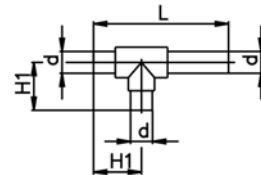
d [mm]	DN [mm]	PN	EPDM Code	kg	G [inch]	G1 [inch]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]
16	10	10	199 041 129	0.100	R 3/4	R 3/4		110	40		35
20	15	10	199 041 130	0.170	R 1	R 3/4		125	40		35
25	20	10	199 041 131	0.270	R 1 1/4	R 3/4		145	45		45
32	25	10	199 041 132	0.400	R 1 1/2	R 1 1/2	245	195		96	71
40	32	10	199 041 133	0.690	R 2	R 2	297	239		116	87
50	40	10	199 041 134	1.090	R 2 1/4	R 2 1/4	369	301		139	105
63	50	10	199 041 135	1.930	R 2 3/4	R 2 3/4	433	351		169	128
75	65	10	199 041 136	1.510	R 1	-	388				115
90	80	10	199 041 137	2.570	R 2 3/4	-	465				149



DN 10 - 20



DN 25 - 50



DN 65 - 80

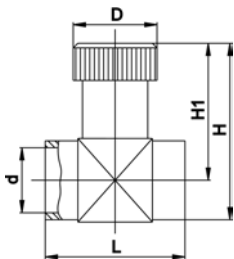


PROGEF Standard Throttle valve type V251 With fusion sockets metric

Model:

- Material: PP-H

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	L [mm]	H [mm]	H1 [mm]
16	10	10	199 041 217	199 041 224	0.032	29	47	57	45
20	15	10	199 041 218	199 041 225	0.051	35	55	66	51
25	20	10	199 041 219	199 041 226	0.080	40	66	80	63
32	25	10	199 041 220	199 041 227	0.135	47	80	96	75
40	32	10	199 041 221	199 041 228	0.243	56	100	111	86
50	40	10	199 041 222	199 041 229	0.419	70	120	133	101
63	50	10	199 041 223	199 041 230	0.600	88	146	158	118

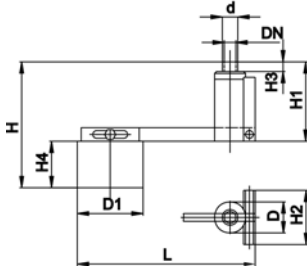




PROGEF Standard Float valve type V140 With fusion spigots metric

Model:

- Material: PP-H
- Lever 1:10



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg
16	10	6	199 041 165	199 041 174	0.460
20	15	6	199 041 166	199 041 175	0.500
25	20	6	199 041 167	199 041 176	1.382
32	25	6	199 041 168	199 041 177	2.140
40	32	6	199 041 169	199 041 178	3.250
50	40	6	199 041 170	199 041 179	4.400
63	50	6	199 041 171	199 041 180	5.800
75	65	6	199 041 172	199 041 181	7.400
90	80	6	199 041 173	199 041 182	8.200

d [mm]	D [mm]	D1 [mm]	L [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
16	45	125	380	270	120	80	14	130
20	45	125	380	270	120	80	16	130
25	65	200	530	340	160	110	19	170
32	65	200	530	345	165	110	22	170
40	90	225	720	440	210	130	26	210
50	90	225	720	445	215	130	31	210
63	130	315	975	595	255	160	38	290
75	130	315	975	600	260	160	44	290
90	150	355	1140	640	290	180	51	340

PROGEF® Natural



- Pipes
- Butt Fusion System

PROGEF® Natural (natural)

Pressure/temperature diagram for PP

PROGEF® Natural

The following pressure/temperature diagram for PROGEF® Natural pipes and fittings is valid for a lifetime of 25 years.

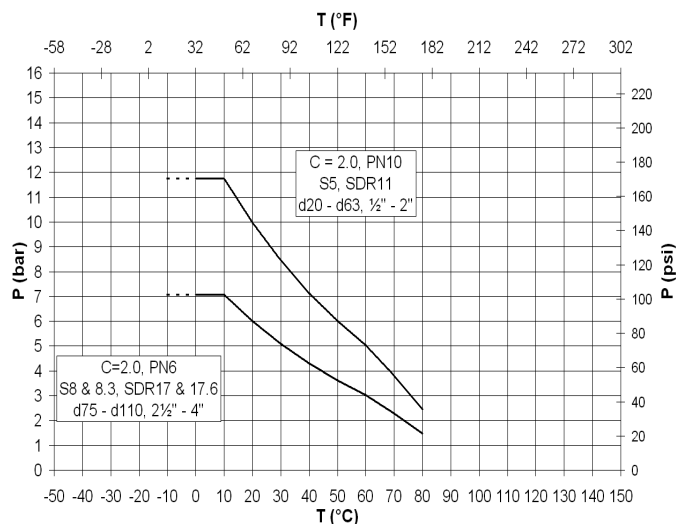
The design factor of 2.0 recommended by GF is incorporated.

It can be used for water or media resembling water, in other words, media which have no derating factor regarding the chemical resistance.

Remark: Please take into account the pressure/temperature diagrams for valves and special fittings. Because of the construction and/or sealing material used, differences are possible when compared with pipes and fittings. This information can be found in the planning fundamentals of the relevant types of valves, respectively special fittings.

Remark: Using PROGEF® Natural at higher temperatures can lead to a discoloration of the material.

In case of applications with temperatures in the range of the dotted lines please contact your GF representative.



P Permissible pressure in bar, psi

T Temperature in °C, °F

PROGEF Natural – System Specification





Material	Polypropylene Random Copolymer
Colour	Unpigmented, translucent
Density	~0.90g/cm ³ (ISO 1183 / ASTM D792)
Surface tension	30–35mJ/m ²
Linear expansion coefficient	0.15 mm/m °K (DIN 53752)
E-modulus	900N/mm ² (ISO 527/ASTM D790)
Thermal conductivity	0.23W/mK (EN 12664)
Surface resistivity	> 10 ¹⁶ Ω (IEC 60093)
Dimension	d20–d110 in accordance with EN ISO 15494
Pressure Rating	Pipes/Fittings/Diaphragm valves: d20–d63 SDR11, PN10, c=2.0 d75–d110 SDR17.6, PN6, c=2.0
Temperature Rating	from 0°C to 80°C (<60°C for valves) (32°F–176°F)
Production	Fittings/valves: injection moulded Pipes: extruded
Surface Finish	Inner surface Ra ≤ 1 µm (39 µin)
Marking	Fittings, pipes and valves are embossed with a permanent identification during the production process to ensure full traceability: Lot No Material Dimension Pressure Rating
Testing and Inspection (EN ISO 15494)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing Full product range passed the Initial Type Test (ITT)
Approvals/Conformance ⁽¹⁾	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic)
Welding Technology	BCF Plus, bead and crevice free fusion IR Plus, infrared fusion (DVS 2207-6) Butt fusion (DVS 2207-11)
Documentation ⁽²⁾	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1 ASME BPE
Packing	Pipes: Capped & single bagged Fittings/valves: Multiple components single bagged in specified bag
Labeling	Brand Name Product Description Code Number Material Dimension CE-labeling ⁽³⁾ Approvals
Main Applications	Uses include cost effective, pure distribution of DI-water and critical biological fluids where chemical sanitisation is needed. Bead and Crevice Free jointing and minimal metallic leachout ensure the highest product quality. Highly resistant to impact, abrasion and many chemicals make it ideal for slurries transportation in the semiconductor industry.

⁽¹⁾ For thermoplastic material only

⁽²⁾ On request

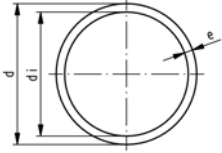
⁽³⁾ From 2008 on

PROGEF Natural Pipes, Fittings, Unions, Flanges and Flange Adaptors

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	Pipes	340
	Fittings for Butt Fusion	341
	Adaptor fittings for butt fusion	343
	Flange Adaptors, Flanges and Gaskets for Butt Fusion	348

Pipes

68 48 01



PROGEF Natural S5/SDR11 (PN10)

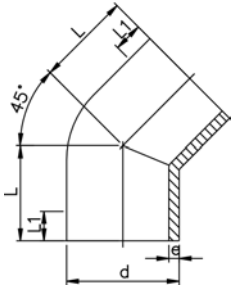
Model:

- Material: PP-R unpigmented
- Colour: natural
- Length: Lengths of 5 m
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11

d [mm]	Code	kg/m	e [mm]	di [mm]	
20	168 480 151	0.107	1,9	16.2	
25	168 480 152	0.164	2,3	20.4	
32	168 480 153	0.261	2,9	26.2	
40	168 480 154	0.412	3,7	32.6	
50	168 480 155	0.638	4,6	40.8	
63	168 480 156	1.010	5,8	51.4	

Fittings for Butt Fusion

PROGEF Natural elbow 45° S5/SDR11

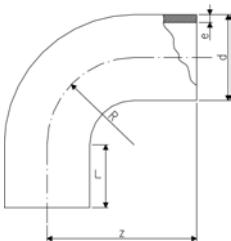


Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	BCF, IR	728 158 506	0.008	32	24	1,9
25	BCF, IR	728 158 507	0.012	34	25	2,3
32	BCF, IR	728 158 508	0.022	36	25	2,9
40	BCF, IR	728 158 509	0.037	39	25	3,7
50	BCF, IR	728 158 510	0.054	42	26	4,6
63	BCF, IR	728 158 511	0.097	47	29	5,8

PROGEF Natural bend 90° S5/SDR11 - 0.75d

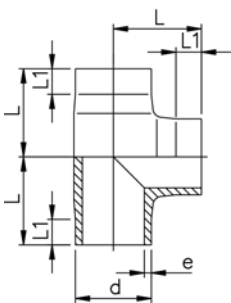


Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11

d [mm]	FM	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
20	IR, BCF	728 018 606	0.007	38	23	15	1.9
25	IR, BCF	728 018 607	0.012	42	23	19	2.3
32	IR, BCF	728 018 608	0.021	46	22	24	2.9
40	IR, BCF	728 018 609	0.036	51	21	30	3.7
50	IR, BCF	728 018 610	0.063	58	21	37	4.6
63	IR, BCF	728 018 611	0.113	66	21	45	5.8

PROGEF Natural tee 90° equal S5/SDR11



Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11

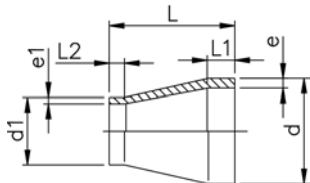
d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	BCF, IR	728 208 506	0.011	38	24	1,9
25	BCF, IR	728 208 507	0.019	42	26	2,3
32	BCF, IR	728 208 508	0.032	46	26	2,9
40	BCF, IR	728 208 509	0.059	51	23	3,7
50	BCF, IR	728 208 510	0.103	58	22	4,6
63	BCF, IR	728 208 511	0.184	66	20	5,8



PROGEF Natural reducer S5/SDR11

Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
25	20	BCF, IR	728 908 537	0.007	50	20	20	2,3	1,9
32	20	BCF, IR	728 908 542	0.010	50	20	20	3,0	1,9
32	25	BCF, IR	728 908 541	0.011	50	20	20	3,0	2,3
40	20	BCF, IR	728 908 548	0.015	58	20	23	3,7	1,9
40	25	BCF, IR	728 908 547	0.016	55	20	20	3,7	2,3
40	32	BCF, IR	728 908 546	0.019	55	20	20	3,7	2,9
50	25	BCF, IR	728 908 554	0.025	60	20	20	4,6	2,3
50	32	BCF, IR	728 908 553	0.027	60	20	20	4,6	2,9
50	40	BCF, IR	728 908 552	0.030	60	20	20	4,6	3,7
63	32	BCF, IR	728 908 560	0.043	65	20	20	5,8	2,9
63	40	BCF, IR	728 908 559	0.047	65	20	20	5,8	3,7
63	50	BCF, IR	728 908 558	0.052	65	20	20	5,8	4,6

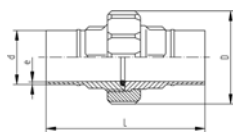
EPDM 28 51 85
FPM 28 52 85



PROGEF Natural sanitary union S5/SDR11

Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11
- Only EPDM codes meet FDA compliance.



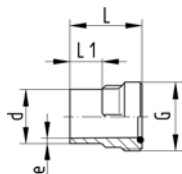
d [mm]	FM	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	BCF, IR	728 518 526	728 528 526	0.046	48	107	53	25	1,9
25	BCF, IR	728 518 527	728 528 527	0.074	58	113	56	25	2,3
32	BCF, IR	728 518 528	728 528 528	0.102	65	119	59	25	2,9
40	BCF, IR	728 518 529	728 528 529	0.169	79	126	63	25	3,7
50	BCF, IR	728 518 530	728 528 530	0.023	91	131	65	25	4,6
63	BCF, IR	728 518 531	728 528 531	0.382	111	137	68	25	5,8



PROGEF Natural union bush S5/SDR11

Model:

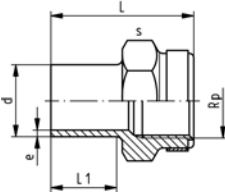
- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11



d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]
20	10	BCF, IR	728 648 526	0.012	1	54	26	1,9
25	10	BCF, IR	728 648 527	0.020	1 1/4	57	26	2,3
32	10	BCF, IR	728 648 528	0.029	1 1/2	60	25	2,9
40	10	BCF, IR	728 648 529	0.047	2	63	25	3,7
50	10	BCF, IR	728 648 530	0.064	2 1/4	66	25	4,6
63	10	BCF, IR	728 648 531	0.104	2 3/4	69	25	5,8

Adaptor fittings for butt fusion

PROGEF Natural adaptor socket metric Rp

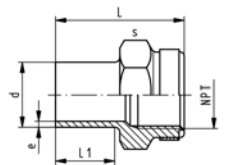


Model:

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and BSP parallel female thread Rp, reinforced
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP

d [mm]	FM	Rp [inch]	PN	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	BCF, IR	½	10	728 918 056	0.017	49	28	32	1,9
25	BCF, IR	¾	10	728 918 057	0.022	51	28	36	2,3
32	BCF, IR	1	10	728 918 058	0.039	54	28	46	2,9
40	BCF, IR	1 ¼	10	728 918 059	0.057	56	28	55	3,7
50	BCF, IR	1 ½	10	728 918 060	0.085	60	28	64	4,6
63	BCF, IR	2	10	728 918 061	0.140	62	28	80	5,8

PROGEF Natural adaptor socket metric NPT

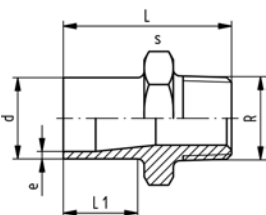


Model:

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and NPT tapered female thread, reinforced
- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	FM	NPT [inch]	PN	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	BCF, IR	½	10	728 914 056	0.017	49	28	32	1,9
25	BCF, IR	¾	10	728 914 057	0.022	51	28	36	2,3
32	BCF, IR	1	10	728 914 058	0.039	54	28	46	2,9
40	BCF, IR	1 ¼	10	728 914 059	0.057	56	28	55	3,7
50	BCF, IR	1 ½	10	728 914 060	0.085	60	28	64	4,6
63	BCF, IR	2	10	728 914 061	0.140	62	28	80	5,8

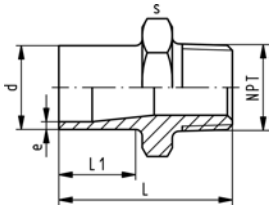
PROGEF Natural adaptor nipple metric R



Model:

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	FM	R [inch]	PN	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	BCF, IR	½	10	728 918 106	0.013	51	28	32	1,9
25	BCF, IR	¾	10	728 918 107	0.017	52	28	36	2,3
32	BCF, IR	1	10	728 918 108	0.027	55	28	46	2,9
40	BCF, IR	1 ¼	10	728 918 109	0.041	58	28	55	3,7
50	BCF, IR	1 ½	10	728 918 110	0.060	60	28	65	4,6
63	BCF, IR	2	10	728 918 111	0.098	67	28	80	5,8

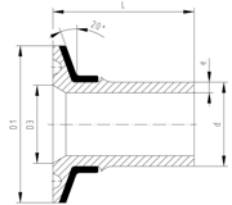


PROGEF Natural adaptor nipple metric NPT

Model:

- Material: PP-R unpigmented
- With butt fusion spigot **SDR11** and NPT tapered male thread
- Connection to plastic threads only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	½	10	BCF, IR	728 914 106	0.013	51	28	32	1,9
25	¾	10	BCF, IR	728 914 107	0.017	52	28	36	2,3
32	1	10	BCF, IR	728 914 108	0.027	55	28	46	2,9
40	1 ¼	10	BCF, IR	728 914 109	0.041	58	28	55	3,7
50	1 ½	10	BCF, IR	728 914 110	0.060	60	28	65	4,6
63	2	10	BCF, IR	728 914 111	0.098	67	28	80	5,8

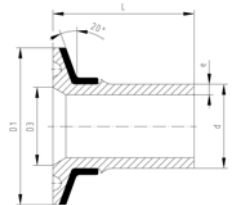


PROGEF Natural sanitary adaptor Connection to ISO 1127

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring

d [mm]	FM	DN [mm]	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
20	BCF, IR	15	10	728 598 006	0.031	50	18	49.0	1,9
25	BCF, IR	20	10	728 598 008	0.032	50	23	49.5	2,3
25	BCF, IR	25	10	728 598 009	0.031	50	29	49.5	2,3
32	BCF, IR	25	10	728 598 010	0.033	50	29	53.0	2,9
40	BCF, IR	32	10	728 598 014	0.054	64	38	54.0	3,7
50	BCF, IR	40	10	728 598 016	0.062	64	44	61.0	4,6
63	BCF, IR	50	10	728 598 018	0.093	77	56	67.0	5,8

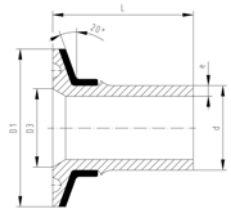


PROGEF Natural sanitary adaptor Connection to DIN 32676

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring

d [mm]	FM	DN [mm]	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
20	BCF, IR	15	10	728 598 056	0.014	34	16	49.0	1,9
20	BCF, IR	20	10	728 598 057	0.014	34	20	49.0	1,9
25	BCF, IR	25	10	728 598 059	0.031	50	26	49.5	2,3
32	BCF, IR	32	10	728 598 062	0.031	50	32	53.0	2,9
40	BCF, IR	40	10	728 598 065	0.032	50	38	54.0	3,7
50	BCF, IR	50	10	728 598 067	0.061	64	50	61.0	4,6

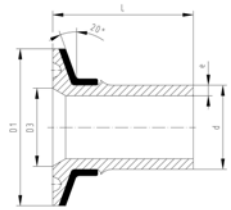


PROGEF Natural sanitary adaptor Connection to DIN 3017

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring

d [mm]	FM	DN [mm]	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
25	BCF, IR	25	10	728 598 259	0.031	50	22	49.5	2,3
32	BCF, IR	32	10	728 598 262	0.031	50	32	53.0	2,9
40	BCF, IR	40	10	728 598 265	0.033	50	35	54.0	3,7
50	BCF, IR	50	10	728 598 267	0.061	64	49	61.0	4,6
63	BCF, IR	65	10	728 598 269	0.093	78	60	67.0	5,8

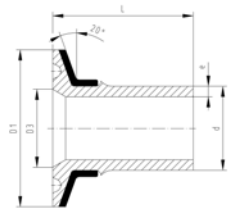


PROGEF Natural sanitary adaptor Connection to ISO 2852

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring

d [mm]	FM	DN [mm]	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
25	BCF, IR	25	10	728 598 309	0.031	51	22	50	2,3
32	BCF, IR	32	10	728 598 312	0.031	51	32	53	2,9
40	BCF, IR	40	10	728 598 315	0.033	51	35	54	3,7
50	BCF, IR	50	10	728 598 317	0.061	64	49	61	4,6
63	BCF, IR	65	10	728 598 319	0.093	78	60	67	5,8



PROGEF Natural sanitary adaptor Connection to ASME BPE

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring

* Without stainless steel reinforcement ring

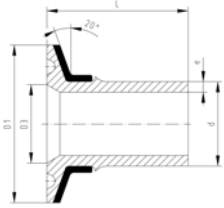
d [mm]	FM	Inch	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
* 20	BCF, IR	3/4	10	728 598 357	0.006	25	16	49	1,9
25	BCF, IR	1	10	728 598 359	0.031	51	22	50	2,3
32	BCF, IR	1 1/4	10	728 598 362	0.031	51	35	53	2,9
40	BCF, IR	1 1/2	10	728 598 365	0.032	51	35	54	3,7
50	BCF, IR	2	10	728 598 367	0.061	64	48	61	4,6
63	BCF, IR	2 1/2	10	728 598 369	0.093	78	60	67	5,8



PROGEF Natural sanitary adaptor Connection to JIS G3447

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring



d [mm]	FM	DN	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
20	BCF, IR	15 A	10	728 598 406	0.014	34	18	49.0	1,9
25	BCF, IR	1 S	10	728 598 408	0.032	50	23	49.5	2,3
32	BCF, IR	1 1/4 S	10	728 598 410	0.033	50	30	53.0	2,9
40	BCF, IR	1 1/2 S	10	728 598 414	0.033	50	35	54.0	3,7
50	BCF, IR	2 S	10	728 598 416	0.061	64	48	61.0	4,6
63	BCF, IR	2 1/2 S	10	728 598 418	0.093	78	60	67.0	5,8

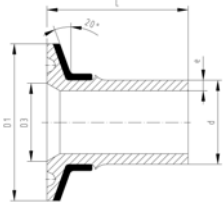


PROGEF Natural sanitary adaptor Connection to 3A standard

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring

* Without stainless steel reinforcement ring



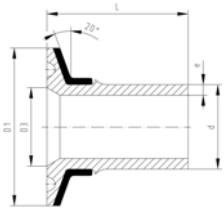
d [mm]	FM	Inch	PN	Code	kg	D1 [mm]	D3 [mm]	L [mm]	e [mm]
* 20	BCF, IR	3/4	10	728 598 207	0.006	25	16	49.0	1,9
25	BCF, IR	1	10	728 598 209	0.032	50	22	49.5	2,3
32	BCF, IR	1 1/2	10	728 598 213	0.032	50	35	53.0	2,9
40	BCF, IR	1 1/2	10	728 598 215	0.033	50	35	54.0	3,7
50	BCF, IR	2	10	728 598 217	0.061	64	48	61.0	4,6
63	BCF, IR	2 1/2	10	728 598 219	0.093	78	60	67.0	5,8



PROGEF Natural sanitary adaptor Connection to membrane manometer

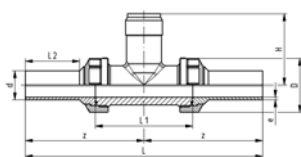
Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Stainless steel reinforcement ring



d [mm]	FM	DN [mm]	PN	Code	kg	e [mm]	D1 [mm]	D3 [mm]	L [mm]
20	BCF, IR	15	10	728 598 516	0.029	1,9	50	34	49
25	BCF, IR	20	10	728 598 518	0.031	2,3	50	34	50
32	BCF, IR	25	10	728 598 520	0.032	2,9	50	34	53

28 31 81



PROGEF Natural installation fitting type 318 For butt fusion systems metric

Model:

- Material: PP-H
- Threaded outlet 1 ¼" NPSM
- Union end with butt fusion spigot PP-R

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

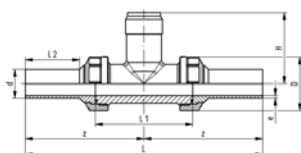
Attention:

- sensor length depends on installation fitting

d [mm]	DN [mm]	PN	FM	EPDM Code	FPM Code	kg	
20	15	10	BCF, IR	728 318 106	728 318 136	0.250	
25	20	10	BCF, IR	728 318 107	728 318 137	0.190	
32	25	10	BCF, IR	728 318 108	728 318 138	0.250	
40	32	10	BCF, IR	728 318 109	728 318 139	0.356	
50	40	10	BCF, IR	728 318 110	728 318 140	0.510	
63	50	10	BCF, IR	728 318 111	728 318 141	0.800	

d [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	e [mm]	Sensor Type	
20	45	99	198	90	38	76	1.9	flow X0, pH XX	
25	55	107	214	100	42	78	2.3	flow X0, pH XX	
32	62	115	230	110	41	81	2.9	flow X0, pH XX	
40	75	118	236	110	42	85	3.7	flow X0, pH XX	
50	84	126	252	120	44	89	4.6	flow X0, pH XX	
63	101	134	268	130	45	95	5.8	flow X0, pH XX	

27 31 80



PROGEF Natural installation fitting type 318 For butt fusion systems metric

Model:

- Body and union nut PVDF
- Threaded outlet 1 ¼" NPSM
- Union end with butt fusion spigot PP-R

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

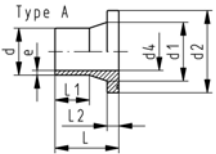
- sensor length depends on installation fitting

d [mm]	DN [mm]	PN	FM	EPDM Code	FPM Code	kg	
20	15	10	BCF, IR	728 318 006	728 318 036	0.250	
25	20	10	BCF, IR	728 318 007	728 318 037	0.355	
32	25	10	BCF, IR	728 318 008	728 318 038	0.427	
40	32	10	BCF, IR	728 318 009	728 318 039	0.700	
50	40	10	BCF, IR	728 318 010	728 318 040	0.850	
63	50	10	BCF, IR	728 318 011	728 318 041	1.182	

d [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	e [mm]	Sensor Type	
20	45	99	198	90	38	76	1.9	flow X0, pH XX	
25	55	107	214	100	42	78	2.3	flow X0, pH XX	
32	62	115	230	110	41	81	2.9	flow X0, pH XX	
40	75	118	236	110	42	85	3.7	flow X0, pH XX	
50	84	126	252	120	44	89	4.6	flow X0, pH XX	
63	101	134	268	130	45	95	5.8	flow X0, pH XX	

Flange Adaptors, Flanges and Gaskets for Butt Fusion

PROGEF Natural flange adaptor S5/SDR11 Combined jointing face: flat and serrated

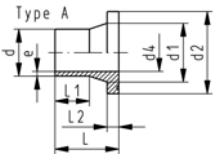


Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07

d [mm]	DN [mm]	FM	Code	kg	d1 [mm]	d2 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	WNF/IR	728 798 706	0.015	27	45	16	50	29	7	1.9
25	20	WNF/IR	728 798 707	0.028	33	58	20	52	27	9	2.3
32	25	WNF/IR	728 798 708	0.042	40	68	26	54	28	10	3.0
40	32	WNF/IR	728 798 709	0.064	50	78	32	56	25	11	3.7
50	40	WNF/IR	728 798 710	0.091	61	88	40	62	32	12	4.6
63	50	WNF/IR	728 798 711	0.146	75	102	51	68	38	14	5.8

Flange Adapter - ANSI Serrated, PN 10, Natural PP



d [mm]	FM	Code	kg	e [mm]	d1 [mm]	d2 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]
20	WNF/IR	728 798 706	0.015	1.9	27	45	16	50	29	7
25	BCF, IR	728 798 657		2.3	33	54	20	52	27	9
32	BCF, IR	728 798 658		3.0	40	63	26	54	28	10
40	BCF, IR	728 798 659		3.7	50	73	32	56	25	11
50	BCF, IR	728 798 660		4.6	61	82	40	62	32	12
63	WNF/IR	728 798 711	0.146	5.8	75	102	51	68	38	14
75	IR	728 798 787	0.202	4.5	89	122	66	70	16	
90	IR	728 798 788	0.271	5.4	105	138	79	79	17	
110	IR	728 798 789	0.354	6.6	125	158	96	82	18	

27 70 04

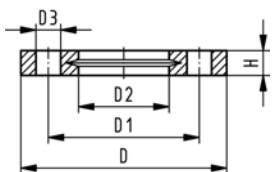
27 70 05

Backing flange PP-V For butt fusion systems metric

Model:

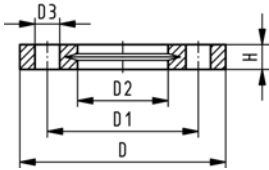
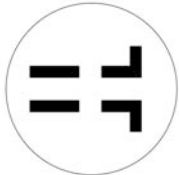
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12
25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12
32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12
40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16
50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16
63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16

27 70 14
27 70 15



Backing flange PP-V For butt fusion systems Inch ANSI

Model:

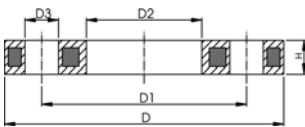
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

1) Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes

Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.080	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.100	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.140	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.220	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.210	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.380	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.480	185	140	92	19	26	4	M16
3	80	16	727 701 513	0.520	200	152	108	19	27	4	M16
4	100	16	727 701 514	0.680	229	190	128	19	28	8	M16
6	150	16	727 700 517	1.200	285	241	178	22	32	8	M20
8	200	16	727 700 519	1.400	340	295	235	22	34	8	M20
9	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
10	250	16	727 701 521	1.800	406	362	288	26	38	12	M20
10	250	16	727 701 522	1.700	406	362	294	26	38	12	M20
12	300	16	727 701 523	2.400	483	432	338	26	42	12	M20

27 70 02
27 70 03



Backing flange PP-Steel For butt fusion systems metric

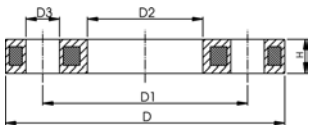
Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	0.220	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.260	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.430	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.650	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.820	150	110	62	18	20	4	M16
63	50	16	727 700 211	0.940	165	125	78	18	20	4	M16

27 70 12



Backing flange PP-Steel For butt fusion systems Inch/ANSI

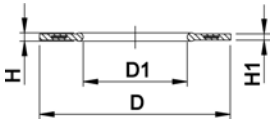
Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

AL: number of holes

DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
15	20	16	727 701 206	0.210	60	28	16	95	12	4
20	25	16	727 701 207	0.250	70	34	16	105	12	4
25	32	16	727 701 208	0.420	79	42	16	115	16	4
32	40	16	727 701 209	0.670	89	51	16	140	16	4
40	50	16	727 701 210	0.860	98	62	16	150	18	4
50	63	16	727 701 211	0.930	121	78	19	165	18	4
65	75	16	727 701 212	1.340	140	92	19	185	18	4
80	90	16	727 701 313	1.550	152	108	19	200	20	4
100	110	16	727 701 314	1.840	190	128	19	229	20	8
150	160	16	727 700 317	3.890	240	178	22	285	24	8
200	200	16	727 701 319	5.180	298	235	22	340	27	8
200	225	16	727 701 320	5.150	298	238	22	340	27	8

EPDM 48 44 07
FPM 49 44 07



Profile flange gasket metric




Model:

- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- **EPDM**: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flange adaptors

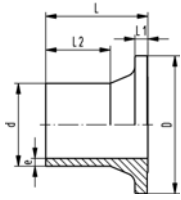
d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
20	15	16	748 440 706	749 440 706	0.008	51	20	4	3	10 - 20
25	20	16	748 440 707	749 440 707	0.011	61	22	4	3	12 - 22
32	25	16	748 440 708	749 440 708	0.014	71	28	4	3	18 - 28
40	32	16	748 440 709	749 440 709	0.021	82	40	4	3	30 - 40
50	40	16	748 440 710	749 440 710	0.022	92	46	4	3	36 - 46
63	50	16	748 440 711	749 440 711	0.041	107	58	5	4	48 - 58

PROGEF Natural Hand-Operated and Actuated Valves

		Page
	Valve End 546	352
	Diaphragm Valves	353
	Diaphragm valves pneumatic	355

Valve End 546

PROGEF Natural valve end 546 SDR11



Model:

- Material: PP-R unpigmented
- Bead and Crevice Free weldable with the new BCF® Plus fusion machine
- Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-n (PP-R)
- Conventional butt-welding according to DVS 2207 part 11

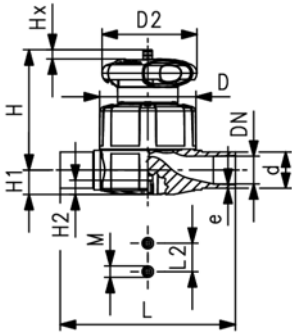
d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	BCF, IR	168 480 260	0.007	38	37	4	25	1,9
25	BCF, IR	168 480 261	0.011	44	39	5	25	2,3
32	BCF, IR	168 480 262	0.017	53	40	5	25	2,9
40	BCF, IR	168 480 263	0.030	65	43	5	25	3,7
50	BCF, IR	168 480 264	0.053	77	51	6	25	4,6
63	BCF, IR	168 480 265	0.093	99	60	7	28	5,8

Diaphragm Valves

PROGEF Natural

Diaphragm valve type 515

With butt fusion spigots SDR11 metric



Model:

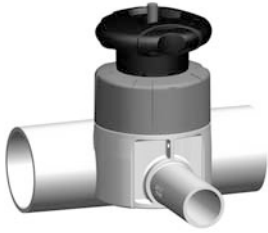
- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	168 515 112	168 515 132	0.308
25	20	10	271	168 515 113	168 515 133	0.393
32	25	10	481	168 515 114	168 515 134	0.969
40	32	10	759	168 515 115	168 515 135	0.000
50	40	10	1263	168 515 116	168 515 136	0.000
63	50	10	1728	168 515 117	168 515 137	0.000

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
20	65	65	124	25	73	14	12	M6	7
25	80	65	144	25	81	18	12	M6	10
32	88	87	155	25	107	22	12	M6	13
40	101	87	176	45	115	26	15	M8	15
50	117	135	193	45	148	32	15	M8	19
63	144	135	223	45	166	39	15	M8	25



PROGEF Natural

Diaphragm valve type 519

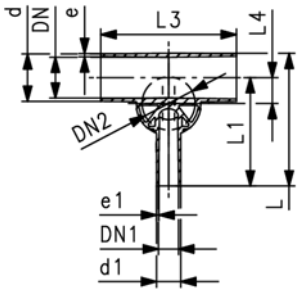
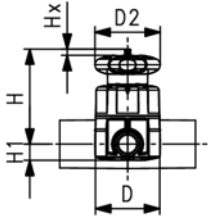
With butt fusion spigots SDR11 metric

Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	20	15	15	15	10	57	168 519 101	168 519 301	0.321
25	20	20	15	20	10	89	168 519 103	168 519 303	0.397
25	25	20	20	20	10	118	168 519 104	168 519 304	0.399
32	20	25	15	20	10	80	168 519 107	168 519 307	0.424
32	25	25	20	20	10	105	168 519 108	168 519 308	0.426
32	32	25	25	25	10	231	168 519 109	168 519 309	0.980
40	20	32	15	25	10	85	168 519 112	168 519 312	0.000
50	20	40	15	20	10	86	168 519 118	168 519 318	0.485
50	25	40	20	25	10	160	168 519 119	168 519 319	0.000
50	32	40	25	25	10	206	168 519 120	168 519 320	0.000
63	20	50	15	20	10	84	168 519 125	168 519 325	0.524
63	25	50	20	25	10	150	168 519 126	168 519 326	0.000
63	32	50	25	25	10	184	168 519 127	168 519 327	0.000

d [mm]	D [mm]	D2 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	65	65	117	96	162	12	75	7	1.9	1.9
25	80	65	133	108	162	16	80	10	2.3	1.9
25	80	65	133	108	162	16	80	10	2.3	2.3
32	80	65	142	120	162	19	84	10	2.9	1.9
32	80	65	142	120	162	19	84	10	2.9	2.3
32	88	87	145	120	160	19	107	13	2.9	2.9
40	88	87	149	128	180	23	115	13	3.7	1.9
50	80	65	160	134	180	27	97	10	4.6	1.9
50	88	87	160	134	180	28	120	13	4.6	2.3
50	88	87	160	134	180	28	120	13	4.6	2.9
63	80	65	177	144	180	33	104	10	5.8	1.9
63	88	87	177	144	180	35	127	13	5.8	2.3
63	88	87	177	144	180	35	127	13	5.8	2.9

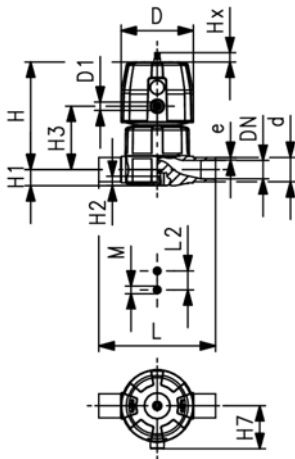
Diaphragm valves pneumatic

PROGEF Natural

Diaphragm valve DIASTAR Six

FC (Fail safe to close)

With butt fusion spigots SDR11 metric



Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve (see diagram)

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	6	125	168 615 112	0.466
25	20	6	271	168 615 113	0.900
32	25	6	481	168 615 114	0.000
40	32	6	759	168 615 115	0.000
50	40	6	960	168 615 116	0.000
63	50	6	1181	168 615 117	0.000

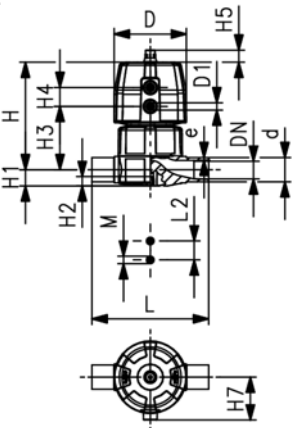
d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	69	M8	14	3.7
50	120	1/8	194	45	193	32	15	119	69	M8	16	4.6
63	120	1/8	224	45	205	39	15	132	69	M8	16	5.8

PROGEF Natural

Diaphragm valve DIASTAR Ten

FC (Fail safe to close)

With butt fusion spigots SDR11 metric



Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

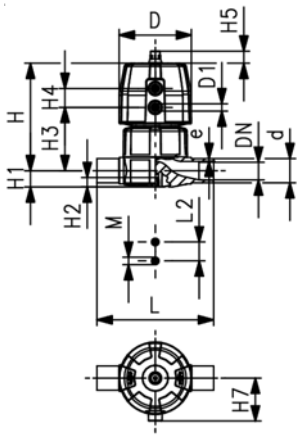
Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	10	125	168 625 112	0.492
25	20	10	271	168 625 113	0.975
32	25	10	481	168 625 114	0.000
40	32	10	759	168 625 115	0.000
50	40	10	1263	168 625 116	0.000
63	50	10	1728	168 625 117	0.000

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9

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d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
40	120	¼	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	¼	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	¼	224	45	226	39	15	132	36	26	88	M8	23	5.8



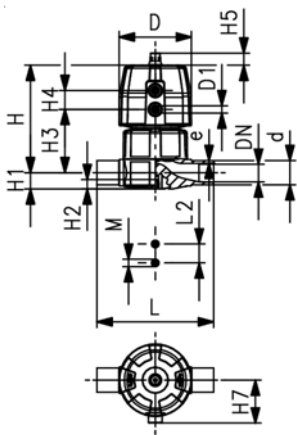
PROGEF Natural Diaphragm valve DIASTAR Ten FO (Fail safe to open) With butt fusion spigots SDR11 metric

Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	10	125	168 645 112	0.442
25	20	10	271	168 645 113	0.801
32	25	10	481	168 645 114	0.954
40	32	10	759	168 645 115	0.000
50	40	10	1263	168 645 116	0.000
63	50	10	1728	168 645 117	0.000

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	⅜	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	⅜	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	⅜	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	⅜	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	¼	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	¼	224	45	226	39	15	132	36	26	88	M8	23	5.8



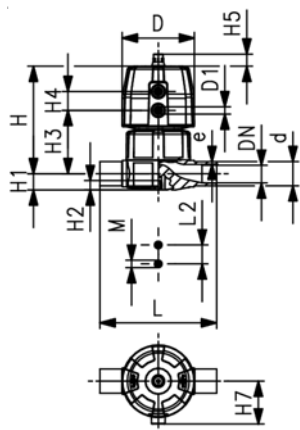
PROGEF Natural Diaphragm valve DIASTAR Ten DA (Double acting) With butt fusion spigots SDR11 metric

Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	10	125	168 655 112	0.426
25	20	10	271	168 655 113	0.765
32	25	10	481	168 655 114	0.924
40	32	10	759	168 655 115	0.000
50	40	10	1263	168 655 116	0.000
63	50	10	1728	168 655 117	0.000

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	68	1/8	124	25	101	14	12	60	24	16	43	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	96	1/8	154	25	143	22	12	84	25	16	57	M6	13	2.9
40	120	1/8	174	45	173	26	15	99	26	26	69	M8	15	3.7
50	150	1/4	194	45	214	32	15	119	36	26	88	M8	19	4.6
63	150	1/4	224	45	226	39	15	132	36	26	88	M8	23	5.8



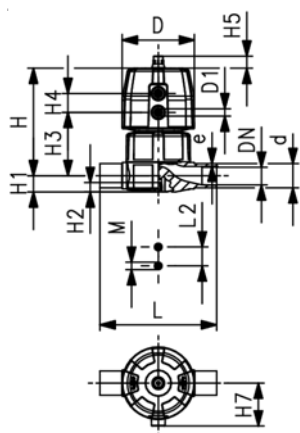
PROGEF Natural Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric

Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals

Option:

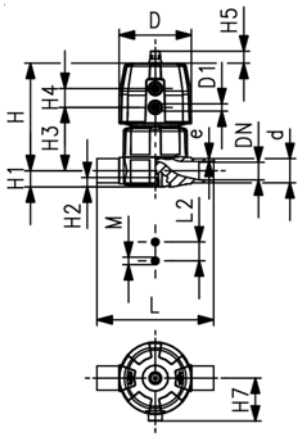
- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
20	15	10	125	168 635 112	0.892
25	20	10	271	168 635 113	0.975
32	25	10	481	168 635 114	0.000
40	32	10	759	168 635 115	0.000
50	40	10	1263	168 635 116	0.000
63	50	10	1728	168 635 117	0.000

d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
20	96	1/8	124	25	127	14	12	68	25	16	57	M6	7	1.9
25	96	1/8	144	25	132	18	12	73	25	16	57	M6	10	2.3
32	120	1/8	154	25	167	22	12	93	26	26	69	M6	13	2.9

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d [mm]	D [mm]	D1_G [inch]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H7 [mm]	M	Lift = Hx [mm]	e [mm]
40	150	¼	174	45	196	26	15	101	36	26	88	M8	15	3.7
50	180	¼	194	45	239	32	15	124	37	26	103	M8	19	4.6
63	180	¼	224	45	251	39	15	137	37	26	103	M8	23	5.8



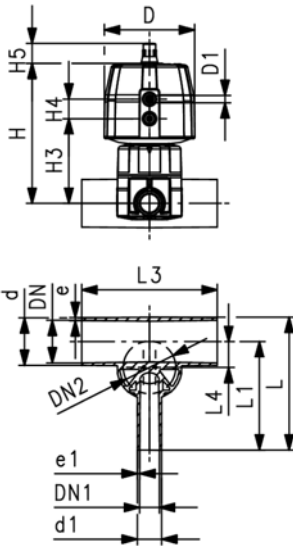
PROGEF Natural Diaphragm valve DIASTAR Sixteen FC (Fail safe to close) With butt fusion spigots SDR11 metric

Model:

- Material: PP-R unpigmented
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Rotating air connection at 90° intervals
- Smallest possible dead space

Option:

- Individual configuration of the valve (see diagram)
- Comprehensive range of accessories available



d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code
20	20	15	15	15	10	57	168 639 101	168 639 301
25	20	20	15	20	10	89	168 639 103	168 639 303
25	25	20	20	20	10	118	168 639 104	168 639 304
32	20	25	15	20	10	80	168 639 107	168 639 307
32	25	25	20	20	10	105	168 639 108	168 639 308
32	32	25	25	25	10	231	168 639 109	168 639 309
40	20	32	15	25	10	85	168 639 112	168 639 312
50	20	40	15	20	10	86	168 639 118	168 639 318
50	25	40	20	25	10	160	168 639 119	168 639 319
50	32	40	25	25	10	206	168 639 120	168 639 320
63	20	50	15	20	10	84	168 639 125	168 639 325
63	25	50	20	25	10	150	168 639 126	168 639 326
63	32	50	25	25	10	184	168 639 127	168 639 327

d [mm]	D [mm]	D1 [inch]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	H3 [mm]	H4 [mm]	H5 [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	96	¾	117	96	162	12	130	71	25	16	7	1.9	1.9
25	96	¾	133	108	162	16	131	72	25	16	10	2.3	1.9
25	96	¾	133	108	162	16	131	72	25	16	10	2.3	2.3
32	96	¾	142	120	162	19	135	76	25	16	10	2.9	1.9
32	96	¾	142	120	162	19	135	76	25	16	10	2.9	2.3
32	120	¾	145	120	160	19	167	93	26	26	13	2.9	2.9
40	120	¾	149	128	180	23	175	101	26	26	13	3.7	1.9
50	96	¾	160	134	180	27	148	90	25	16	10	4.6	1.9
50	120	¾	160	134	180	28	180	106	26	26	13	4.6	2.3
50	120	¾	160	134	180	28	180	106	26	26	13	4.6	2.9
63	96	¾	177	144	180	33	155	96	25	16	10	5.8	1.9
63	120	¾	177	144	180	35	187	113	26	26	13	5.8	2.3
63	120	¾	177	144	180	35	187	113	26	26	13	5.8	2.9

PROGEF® Plus General Information



- Pipes
- Butt Fusion System

PROGEF Plus – System Specification






Material	Beta PP-H 100 (Beta Polypropylene Homopolymer) d 20 – d 225	State-of-the-art PP (Polypropylene) d 250 – d 315
Colour	RAL 7032 pebble grey	RAL 7032 pebble grey
Density	~0.90g/cm ³ (ISO 1183/ASTM D792)	~0.90g/cm ³ (ISO 1183 / ASTM D792)
Surface tension	31 mJ/m ²	24 mJ/m ²
Linear expansion coefficient	0.16 mm/mK (DIN 53752)	0.16-0.18 mm/mK (DIN 53752)
E-modulus	1300N/mm ² (ISO 527/ASTM D790)	900N/mm ² (ISO 527/ASTM D790)
Thermal conductivity	0.23W/mK (EN 12664)	0.23W/mK (EN 12664)
Surface resistivity	>10 ¹⁶ Ω (IEC 60093)	>10 ¹⁶ Ω (IEC 60093)
Dimension	d 20 – d 315 in accordance to EN ISO 15494	
Pressure Rating	Pipes/Fittings/Diaphragm and ball valves: d 20 – d 225 SDR11, PN10, c=2.0 d 50 – d 225 SDR17.6, PN6, c=2.0 Butterfly valves: d 63 – d 225, PN10	Pipes/Fittings: d 250 – d 315 SDR11, PN10, c=2.0 d 250 – d 315 SDR17.6, PN6, c=2.0
Temperature Rating	From 0 °C to 80 °C (32 °F – 176 °F)	
Production	Fittings/valves: injection moulded Pipes: extruded Treatment: Every component is specially cleaned according to a process defined by +GF+. Pipes and fittings are silicon-, oil- and dustfree. Additional specifications for valves. Products especially suitable for the paint and microelectronics industry.	
Surface Finish	Inner surface Ra ≤ 1.0 µm (39 µin) for components d 20 – d 110 Inner surface Ra ≤ 1.5 µm (59 µin) for components d 125 – d 315	
Marking	All components are embossed with a permanent identification during the production process to ensure full traceability: Lot No Material Dimension Pressure Rating	
Testing and Inspection (EN ISO 15494)	Visual inspection Surface finish Dimension tolerance Pressure testing Full product range passed the Initial Type Test (ITT)	
Approvals/Conformance⁽¹⁾	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic)	
Welding Technology	IR Plus, infrared fusion (DVS 2207-6): d 20 – d 225 Butt fusion (DVS 2207-11): d 20 – d 315	
Documentation⁽²⁾	EN 10204 2.2 / EN 10204 3.1	
Packing	Pipes: Capped and double bagged in specified bag Fittings/valves: Each component double bagged in specified bag	
Labeling	Brand Name Product Description Code Number Material Dimension CE-labeling ⁽³⁾ Approvals	
Main Applications	Due to the special treatment, PROGEF Plus piping systems are suitable for economical delivery of ultrapure water in semiconductor and TFT/FPD applications and ensure high quality in the paint industry. Highly resistant to impact, abrasion and many chemicals.	

⁽¹⁾ For thermoplastic material only

⁽²⁾ On request

⁽³⁾ From 2008 on

PROGEF Plus Pipes, Fittings, Unions, Flanges and Flange Adap- tors

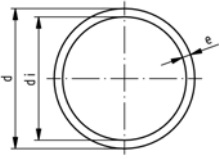
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	Pipes	362
	Fittings for Butt Fusion	363
	Unions for Butt Fusion	367
	Flange Adaptors, Flanges and Gaskets for Butt Fusion	368
	Unions for Socket Fusion	372

Pipes

PROGEF Plus S5/SDR11 (PN10)

Model:

- Material: PP-H
- DIN 8077 / 8078 - DIBT Z-40.23-4
- Closed with caps and double bagged (LDPE-foil)
- Colour: RAL 7032 pebble grey
- Length: Lengths of 5 m



d [mm]	PN	Code	kg/m	e [mm]	di [mm]
20	10	167 481 711	0.107	1.9	16.2
25	10	167 481 712	0.164	2.3	20.4
32	10	167 481 713	0.261	2.9	24.2
40	10	167 481 714	0.412	2.9	32.6
50	10	167 481 715	0.638	4.6	40.8
63	10	167 481 716	1.010	5.8	51.4
75	10	167 481 717	1.410	6.8	61.4
90	10	167 481 718	2.030	8.2	73.6
110	10	167 481 719	3.010	10.0	90.0
125	10	167 481 720	3.910	11.4	102.2
140	10	167 481 721	4.870	12.7	114.6
160	10	167 481 722	6.380	14.6	130.8
180	10	167 481 723	8.070	16.4	147.2
200	10	167 481 724	9.950	18.2	163.6
225	10	167 481 725	12.600	20.5	184.0
250	10	167 481 726	15.500	22.7	184.6
280	10	167 481 727	19.400	25.4	229.2
315	10	167 481 728	24.600	28.6	257.0

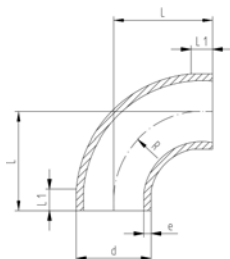
Fittings for Butt Fusion

PROGEF Plus bend 90° S5/SDR11



Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged



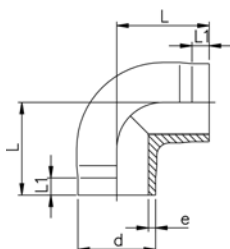
d [mm]	FM	Code	L [mm]	L1 [mm]	R [mm]	e [mm]
20	IR	727 018 681	38	23	15	1,9
25	IR	727 018 682	42	23	19	2,3
32	IR	727 018 683	46	22	24	2,9
40	IR	727 018 684	51	21	30	3,7
50	IR	727 018 685	58	21	37	4,6
63	IR	727 018 686	66	21	45	5,8
75	IR	727 018 662	100	20	90	6,8
90	IR	727 018 663	100	20	90	8,2
110	IR	727 018 664	141	25	130	10,0
125	IR	727 018 475	140	15	125	11,4
140	IR	727 018 476	155	15	140	12,7
160	IR	727 018 477	175	15	160	14,6
180	IR	727 018 478	195	15	180	16,4
200	IR	727 018 479	215	15	200	18,2
225	IR	727 018 480	245	20	225	20,5
250	--	727 018 450	256	49	232	22,7
280	--	727 018 451	286	44	262	25,4
315	--	727 018 452	321	51	297	28,6

PROGEF Plus elbow 90° S5/SDR11



Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged



d [mm]	FM	Code	L [mm]	L1 [mm]	e [mm]
20	IR	727 108 581	38	25	1,9
25	IR	727 108 582	42	26	2,3
32	IR	727 108 583	46	27	2,9
40	IR	727 108 584	51	22	3,7
50	IR	727 108 585	58	23	4,6
63	IR	727 108 586	66	21	5,8

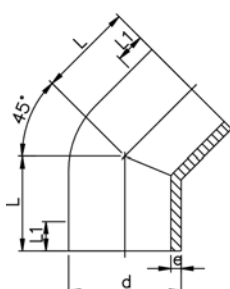
PROGEF Plus elbow 45° S5/SDR11



Model:

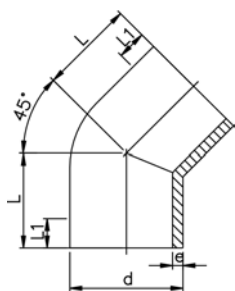
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged
- Long version for d250, d280 and d315

xx Material: PP-R



d [mm]	FM	Code	L [mm]	L1 [mm]	e [mm]
20	IR	727 158 581	32	24	1,9
25	IR	727 158 582	34	25	2,3
32	IR	727 158 583	36	25	2,9
40	IR	727 158 584	39	25	3,7
50	IR	727 158 585	42	26	4,6
63	IR	727 158 586	47	29	5,8
75	IR	727 158 587	49	29	6,8
90	IR	727 158 588	57	34	8,2

table continued next page

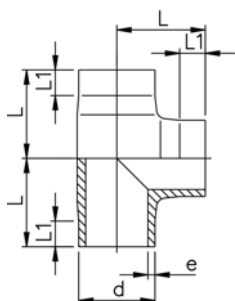


d [mm]	FM	Code	L [mm]	L1 [mm]	e [mm]
110	IR	727 158 589	70	43	10,0
125	IR	727 158 590	79	48	11,4
140	IR	727 158 591	88	55	12,7
160	IR	727 158 592	100	60	14,6
200	IR	727 158 594	124	75	18,2
225	IR	727 158 595	140	85	20,5
xx 250	--	727 158 596	225	133	22,7
xx 280	--	727 158 597	235	143	25,4
xx 315	--	727 158 598	255	154	28,6

PROGEF Plus tee 90° equal S5/SDR11

Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged

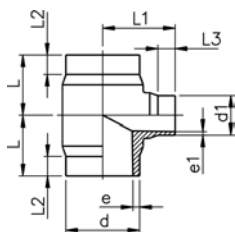


d [mm]	FM	Code	L [mm]	L1 [mm]	e [mm]
20	IR	727 208 581	38	24	1,9
25	IR	727 208 582	42	26	2,3
32	IR	727 208 583	46	26	2,9
40	IR	727 208 584	51	23	3,7
50	IR	727 208 585	58	22	4,6
63	IR	727 208 586	66	20	5,8
75	IR	727 208 587	75	20	6,8
90	IR	727 208 588	90	20	8,2
110	IR	727 208 589	110	20	10,0
125	IR	727 208 590	125	25	11,4
140	IR	727 208 591	140	28	12,7
160	IR	727 208 592	160	28	14,6
180	IR	727 208 593	195	73	16,4
200	IR	727 208 594	200	35	18,2
225	IR	727 208 595	220	35	20,5
250	--	727 208 596	275	86	22,7
280	--	727 208 597	310	105	25,4
315	--	727 208 598	350	111	28,6

Tee 90° reducing, S5/SDR11

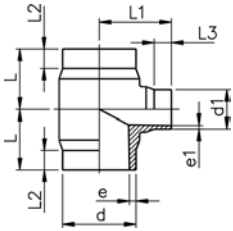
Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged



d [mm]	d1 [mm]	FM	Code	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
63	32	IR	727 208 251	65	70	25	25	5,8	2,9
63	50	IR	727 208 252	65	70	25	25	5,8	4,6
75	32	IR	727 208 253	70	75	25	25	6,8	2,9
75	50	IR	727 208 254	70	75	25	25	6,8	4,6
75	63	IR	727 208 255	70	75	25	25	6,8	5,8
90	50	IR	727 208 257	80	85	25	25	8,2	4,6
90	63	IR	727 208 258	80	85	25	25	8,2	5,8
90	75	IR	727 208 259	80	85	25	25	8,2	6,8
110	32	IR	727 208 260	90	95	30	25	10,0	2,9
110	50	IR	727 208 261	90	95	30	25	10,0	4,6
110	63	IR	727 208 262	90	95	30	25	10,0	5,8
110	75	IR	727 208 263	90	95	30	25	10,0	6,8
110	90	IR	727 208 264	90	95	30	25	10,0	8,2
160	63	IR	727 208 271	142	135	50	30	14,6	5,8
160	75	IR	727 208 272	142	135	50	30	14,6	6,8
160	90	IR	727 208 273	142	135	50	30	14,6	8,2
160	110	IR	727 208 274	142	135	50	30	14,6	10,0

table continued next page



d [mm]	d1 [mm]	FM	Code	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
225	90	IR	727 208 288	155	165	40	30	20,5	8,2
225	110	IR	727 208 289	155	165	40	30	20,5	10,0
225	160	IR	727 208 291	155	165	40	30	20,5	14,6

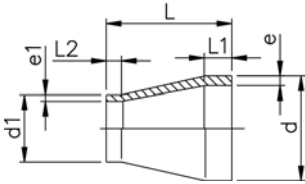


Reducers, S5/SDR11

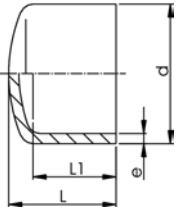
Model:

- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged

xx Material: PP-R



d [mm]	d1 [mm]	FM	Code	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
25	20	IR	727 908 637	50	20	20	2,3	1,9
32	20	IR	727 908 642	50	20	20	2,9	1,9
32	25	IR	727 908 641	50	20	20	2,9	2,3
40	20	IR	727 908 648	58	20	23	3,7	1,9
40	25	IR	727 908 647	55	20	20	3,7	2,3
40	32	IR	727 908 646	55	20	20	3,7	2,9
50	25	IR	727 908 654	60	20	20	4,6	2,3
50	32	IR	727 908 653	60	20	20	4,6	2,9
50	40	IR	727 908 652	60	20	20	4,6	3,7
63	32	IR	727 908 660	65	20	20	5,8	2,9
63	40	IR	727 908 659	65	20	20	5,8	3,7
63	50	IR	727 908 658	65	20	20	5,8	4,6
75	40	IR	727 908 666	68	20	20	6,8	3,7
75	50	IR	727 908 665	65	20	20	6,8	4,6
75	63	IR	727 908 664	65	20	20	6,8	5,8
90	63	IR	727 908 671	75	22	19	8,2	5,8
90	75	IR	727 908 670	75	21	19	8,2	6,8
110	75	IR	727 908 677	90	28	18	10,0	6,8
110	90	IR	727 908 676	90	28	20	10,0	8,2
125	110	IR	727 908 680	100	31	30	11,4	10,0
140	110	IR	727 908 685	110	33	29	12,7	10,0
140	125	IR	727 908 684	110	34	30	12,7	11,4
160	110	IR	727 908 690	120	38	27	14,6	10,0
160	140	IR	727 908 688	120	40	35	14,6	12,7
180	90	IR	727 908 691	157	45	22	16,4	8,2
180	110	IR	727 908 955	157	45	28	16,4	10,0
180	125	IR	727 908 698	136	45	32	16,4	11,4
180	140	IR	727 908 699	136	45	35	16,4	12,7
180	160	IR	727 908 952	136	45	40	16,4	14,6
200	160	IR	727 908 692	145	50	40	18,2	14,6
200	180	IR	727 908 693	151	50	45	18,2	16,4
225	110	IR	727 908 695	160	55	35	20,5	10,0
225	160	IR	727 908 696	160	55	40	20,5	14,6
225	180	IR	727 908 694	171	55	45	20,5	16,4
225	200	IR	727 908 697	160	55	50	20,5	18,2
250	160	--	727 908 700	194	60	40	22,7	14,6
250	225	--	727 908 701	182	60	55	22,7	20,5
xx 280	225	--	727 908 702	200	85	80	25,4	20,5
xx 280	250	--	727 908 703	200	85	90	25,4	22,7
xx 315	225	--	727 908 704	230	95	88	28,6	20,5
xx 315	250	--	727 908 705	230	95	95	28,6	22,7
xx 315	280	--	727 908 706	230	95	107	28,6	25,4



End Caps, S5/SDR11

Model:

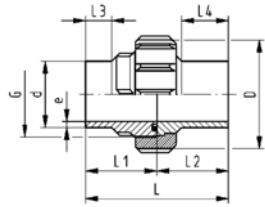
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged

¹ Material: PP-R

d [mm]	FM	Code	L [mm]	L1 [mm]	e [mm]
20	IR	727 968 981	45	35	1,9
25	IR	727 968 982	52	40	2,3
32	IR	727 968 983	58	44	2,9
40	IR	727 968 984	67	50	3,7
50	IR	727 968 985	75	55	4,6
63	IR	727 968 986	85	62	5,8
75	IR	727 968 987	95	63	6,8
90	IR	727 968 988	110	79	8,2
110	IR	727 968 989	127	88	10,0
125	IR	727 968 990	138	102	11,4
140	IR	727 968 991	144	106	12,7
160	IR	727 968 992	154	109	14,6
180	IR	727 968 993	191	141	16,4
200	IR	727 968 994	181	127	18,2
225	IR	727 968 995	211	141	20,5
¹ 250	--	727 968 996	205	130	22,7
¹ 280	--	727 968 997	235	139	25,4
¹ 315	--	727 968 998	255	150	28,6

Unions for Butt Fusion

EPDM 27 51 86
FPM 27 52 86



PROGEF Plus union S5/SDR11

Model:

- Material: PP-H
- With butt fusion ends
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Cleaned and double bagged

d [mm]	D [mm]	FM	EPDM Code	FPM Code
20	48	IR	727 518 606	727 528 606
25	58	IR	727 518 607	727 528 607
32	65	IR	727 518 608	727 528 608
40	79	IR	727 518 609	727 528 609
50	91	IR	727 518 610	727 528 610
63	111	IR	727 518 611	727 528 611
75	135	IR	727 518 612	727 528 612
90	135	IR	727 518 613	727 528 613
110	158	IR	727 518 614	727 528 614

d [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	O-Ring EPDM	O-Ring FPM	Size
20	1	107	54	53	26	1,9	748.413.006	749.413.006	20,22 x 3,53
25	1 1/4	113	57	56	26	2,3	748.413.007	749.413.007	28,17 x 3,53
32	1 1/2	119	60	59	26	2,9	748.413.008	749.413.008	32,93 x 3,53
40	2	126	63	63	26	3,7	748.413.009	749.413.009	40,65 x 5,34
50	2 1/4	131	66	66	26	4,6	748.413.010	749.413.010	47,00 x 5,34
63	2 3/4	137	69	68	26	5,8	748.413.011	749.413.011	59,69 x 5,34
75	S107,5x3,6	132	66	66	24	6,8	748.413.013	749.413.013	69,22 x 5,34
90	S107,5x3,6	131	66	66	24	8,2	748.413.014	749.413.014	81,92 x 5,34
110	S127,5x3,6	131	66	66	25	10,0	748.413.015	749.413.015	101,00 x 5,34

Flange Adaptors, Flanges and Gaskets for Butt Fusion

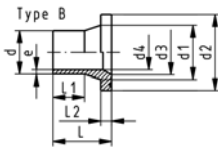
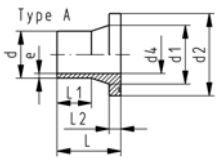
PROGEF Plus flange adaptor S5/SDR11

Combined jointing Face: flat and serrated

Model:

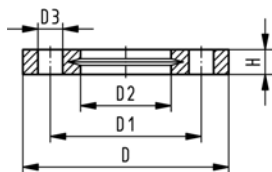
- Material: PP-H
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Suitable for flange connections to metric (**from d110 also to ANSI/ASME B16.5**)
- Suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket EPDM No. 48 44 17, FPM No. 49 44 17
- Cleaned and double bagged

* Type B with chamfer



d [mm]	DN [mm]	FM	Code	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	IR	727 798 731	26	45		16	50	29	7	1.9
25	20	IR	727 798 732	32	58		20	52	27	9	2.3
32	25	IR	727 798 733	40	68		26	54	28	10	2.9
40	32	IR	727 798 734	49	78		32	56	25	11	3.7
50	40	IR	727 798 735	60	88		40	62	32	12	4.6
63	50	IR	727 798 736	75	102		51	68	38	14	5.8
* 75	65	IR	727 798 737	89	122	66	61	80	43	16	6.8
* 90	80	IR	727 798 738	105	138	78	73	80	41	17	8.2
* 110	100	IR	727 798 739	125	158	100	90	80	40	18	10.0
* 125	100	IR	727 798 740	132	158	114	102	82	35	25	11.4
* 140	125	IR	727 798 741	155	188	127	114	89	39	25	12.7
* 160	150	IR	727 798 742	175	212	151	130	92	45	25	14.6
* 180	150	IR	727 798 743	180	212	154	147	80	45	30	16.4
* 200	200	IR	727 798 744	232	268	203	163	100	30	32	18.2
* 225	200	IR	727 798 745	235	268	210	184	100	35	32	20.5
* 250	250		727 798 746	285	320	250	204	100	25	35	22.7
* 280	250		727 798 747	291	320	265	229	100	35	35	25.4
* 315	300		727 798 748	335	370	300	257	100	25	35	28.6

27 70 14
27 70 15



Backing flange PP-V For butt fusion systems Inch ANSI

Model:

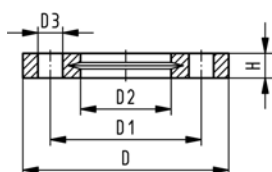
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

1) Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes

Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	105	70	34	16	17	4	M12
1	25	16	727 701 408	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	150	98	62	16	22	4	M16
2	50	16	727 701 411	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	185	140	92	19	26	4	M16
3	80	16	727 701 513	200	152	108	19	27	4	M16
4	100	16	727 701 514	229	190	128	19	28	8	M16
6	150	16	727 700 517	285	241	178	22	32	8	M20
8	200	16	727 700 519	340	295	235	22	34	8	M20
9	200	16	727 700 520	340	295	238	22	34	8	M20
10	250	16	727 701 521	406	362	288	26	38	12	M20
10	250	16	727 701 522	406	362	294	26	38	12	M20
12	300	16	727 701 523	483	432	338	26	42	12	M20

27 70 04
27 70 05



Backing flange PP-V For butt fusion systems metric

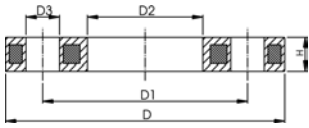
Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d [mm]	Inch	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	95	65	28	14	16	4	M12
25		20	16	727 700 407	105	75	34	14	17	4	M12
32		25	16	727 700 408	115	85	42	14	18	4	M12
40		32	16	727 700 409	140	100	51	18	20	4	M16
50		40	16	727 700 410	150	110	62	18	22	4	M16
63		50	16	727 700 411	165	125	78	18	24	4	M16
75		65	16	727 700 412	185	145	92	18	26	4	M16
90		80	16	727 700 513	200	160	108	18	27	8	M16
110		100	16	727 700 514	220	180	128	18	28	8	M16
125		100	16	727 700 515	220	180	135	18	28	8	M16
140		125	16	727 700 516	250	210	158	18	30	8	M16
160	6	150	16	727 700 517	285	241	178	22	32	8	M20
180		150	16	727 700 518	285	240	188	22	32	8	M20
200	8	200	16	727 700 519	340	295	235	22	34	8	M20
225	9	200	16	727 700 520	340	295	238	22	34	8	M20
250		250	16	727 700 521	395	350	288	22	38	12	M20
280		250	16	727 700 522	395	350	294	22	38	12	M20
315		300	16	727 700 523	445	400	338	22	42	12	M20

27 70 12



Backing flange PP-Steel For butt fusion systems Inch/ANSI

Model:

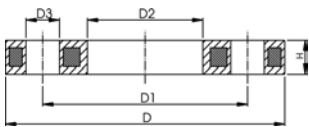
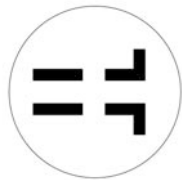
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

AL: number of holes

DN [mm]	d [mm]	PN	Code	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
15	20	16	727 701 206	60	28	16	95	12	4
20	25	16	727 701 207	70	34	16	105	12	4
25	32	16	727 701 208	79	42	16	115	16	4
32	40	16	727 701 209	89	51	16	140	16	4
40	50	16	727 701 210	98	62	16	150	18	4
50	63	16	727 701 211	121	78	19	165	18	4
65	75	16	727 701 212	140	92	19	185	18	4
80	90	16	727 701 313	152	108	19	200	20	4
100	110	16	727 701 314	190	128	19	229	20	8
150	160	16	727 700 317	240	178	22	285	24	8
200	200	16	727 701 319	298	235	22	340	27	8
200	225	16	727 701 320	298	238	22	340	27	8

27 70 02

27 70 03



Backing flange PP-Steel For butt fusion systems metric

Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	95	65	28	14	12	4	M12
25	20	16	727 700 207	105	75	34	14	12	4	M12
32	25	16	727 700 208	115	85	42	14	16	4	M12
40	32	16	727 700 209	140	100	51	18	16	4	M16
50	40	16	727 700 210	150	110	62	18	20	4	M16
63	50	16	727 700 211	165	125	78	18	20	4	M16
75	65	16	727 700 212	185	145	92	18	20	4	M16
90	80	16	727 700 313	200	160	108	18	20	8	M16
110	100	16	727 700 314	220	180	128	18	20	8	M16
125	100	16	727 700 315	220	180	135	18	20	8	M16
140	125	16	727 700 316	250	210	158	18	24	8	M16
160	150	16	727 700 317	285	240	178	22	24	8	M20
180	150	16	727 700 318	285	240	188	22	24	8	M20
200	200	16	727 700 319	340	295	235	22	27	8	M20
225	200	16	727 700 320	340	295	238	22	27	8	M20
250	250	16	727 700 321	395	350	288	22	30	12	M20
280	250	16	727 700 322	395	350	294	22	30	12	M20
315	300	16	727 700 323	445	400	338	22	34	12	M20



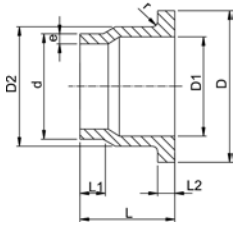
PROGEF Plus outlet flange adaptor S5/SDR11 Combined jointing Face: flat and serrated

Model:

- Material: PP-R unpigmented
- Conventional butt-welding according to DVS 2207 part 11
- To wafer check valves Type 369
- Cleaned and double bagged

Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.



d [mm]	DN [mm]	Code	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]
40	32	727 808 134	80	37	50	64	30	11	3,7	3
50	40	727 808 135	90	43	61	67	30	12	4,6	3
63	50	727 808 136	105	54	76	74	30	14	5,8	4
75	65	727 808 137	125	70	90	78	30	16	6,8	4
90	80	727 808 138	140	82	108	87	35	17	8,2	4
110	100	727 808 139	160	105	131	102	41	18	10,0	4
140	125	727 808 141	190	130	165	124	47	25	12,7	4
160	150	727 808 142	215	158	188	149	52	25	14,6	4
225	200	727 808 145	270	206	248	180	55	32	20,5	4
280	250	727 808 147	325	259	308	240	63	35	25,4	4
315	300	727 808 148	375	308	346	272	66	35	28,6	4

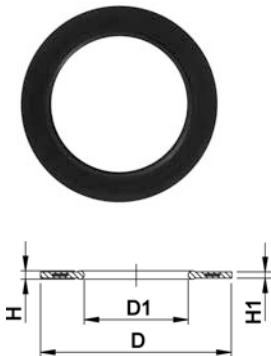
EPDM 48 44 17
FPM 49 44 17

Profile flange gasket silicone free EPDM / FPM

Model:

- Silicone free / paint-compatible
- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**

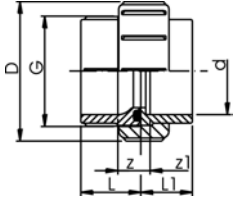
di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
20	15	16	748 441 706	749 441 706	51	20	4	3	10 - 20
25	20	16	748 441 707	749 441 707	61	22	4	3	12 - 22
32	25	16	748 441 708	749 441 708	71	28	4	3	18 - 28
40	32	16	748 441 709	749 441 709	82	40	4	3	30 - 40
50	40	16	748 441 710	749 441 710	92	46	4	3	36 - 46
63	50	16	748 441 711	749 441 711	107	58	5	4	48 - 58
75	65	16	748 441 712	749 441 712	127	69	5	4	59 - 69
90	80	16	748 441 713	749 441 713	142	84	5	4	73 - 84
110	100	16	748 441 714	749 441 714	162	104	6	5	94 - 104
125	100	16	748 441 715	749 441 715	162	123	6	5	113 - 123
140	125	16	748 441 716	749 441 716	192	137	6	5	127 - 137
160 / 180	150	16	748 441 717	749 441 717	218	160	8	6	150 - 160
200	200	16	748 441 719	749 441 719	273	203	8	6	192 - 203
225	200	16	748 441 720	749 441 720	273	220	8	6	207 - 207
250	250	16	748 441 721	749 441 721	328	252	8	6	238 - 250
280	250	16	748 441 722	749 441 722	328	274	8	6	264 - 274
315	300	16	748 441 723	749 441 723	378	306	8	6	296 - 296

Unions for Socket Fusion

EPDM 27 51 02
FPM 27 52 02



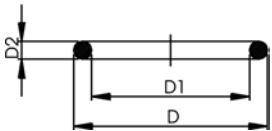
PROGEF Plus union

Model:

- Material: PP-H
- Fusion socket metric
- D75-110 with new thread geometry, now rated PN10 up to d110
- Jointing face: with O-Ring
- Cleaned and double bagged

d [mm]	PN	EPDM Code	FPM Code
16	10	727 510 255	727 520 255
20	10	727 510 256	727 520 256
25	10	727 510 257	727 520 257
32	10	727 510 258	727 520 258
40	10	727 510 259	727 520 259
50	10	727 510 260	727 520 260
63	10	727 510 261	727 520 261
75	10	727 510 272	727 520 272
90	10	727 510 273	727 520 273
110	10	727 510 274	727 520 274

d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	O-Ring EPDM	O-Ring FPM	Size
16	35	3/4	24	18	5	11	748.413.005	749.413.005	15,54 x 2,62
20	48	1	26	19	5	12	748.413.006	749.413.006	20,22 x 3,53
25	58	1 1/4	28	21	5	12	748.413.007	749.413.007	28,17 x 3,53
32	65	1 1/2	30	23	5	12	748.413.008	749.413.008	32,93 x 3,53
40	79	2	34	25	5	14	748.413.009	749.413.009	40,65 x 5,54
50	91	2 1/4	39	28	5	16	748.413.010	749.413.010	47,00 x 5,34
63	111	2 3/4	47	32	5	20	748.413.011	749.413.011	59,69 x 5,34
75	135	S107,5x3,6	51	36	5	20	748.413.014	749.413.014	81,92 x 5,34
90	158	S127,5x3,6	55	42	7	20	748.413.015	749.413.015	101,00 x 5,34
110	188	S152,5x3,6	54	49	7	12	748.413.016	748.413.016	120,00 x 6,99







O-Ring

Model:

- Hardness approx. 65° Shore
- Suitable for unions
- Cleaned and double bagged

d [mm]	EPDM Code	FPM Code	D [mm]	D1 [mm]	D2 [mm]
16	748 413 005	749 413 005	21	16	2.62
20	748 413 006	749 413 006	27	20	3.53
25	748 413 007	749 413 007	35	28	3.53
32	748 413 008	749 413 008	40	33	3.53
40	748 413 009	749 413 009	51	41	5.34
50	748 413 010	749 413 010	58	47	5.34
63	748 413 011	749 413 011	70	60	5.34
75	748 413 014	749 413 014	93	82	5.34
90	748 413 015	749 413 015	112	101	5.34
110	748 413 016	749 413 016	134	120	6.99

PROGEF Plus Hand-Operated and Actuated Valves

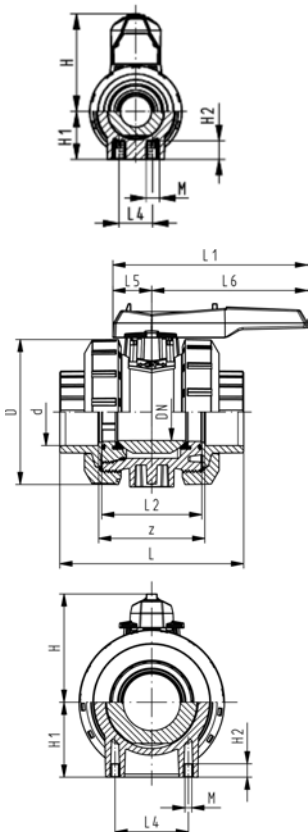
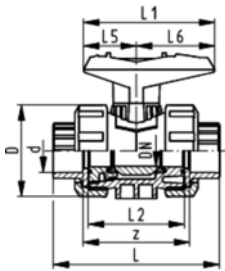
		Page
	Ball Valve	374
	Diaphragm valves silicon free	378
	Butterfly valves	382
	Ball Check Valves	386

Ball Valve

Ball Valve Type 546, PP-H SF with mounting inserts With fusion sockets metric



DN10/15 - 50



Model:

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Integrated stainless steel mounting inserts
- Double bagged
- Ball seals PVDF

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

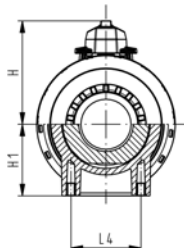
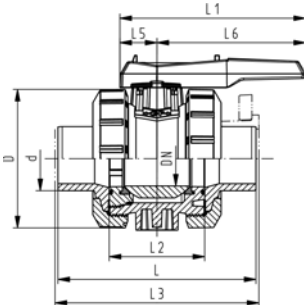
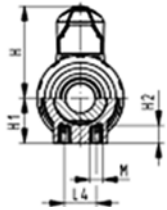
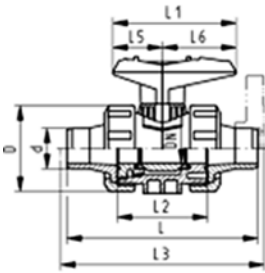
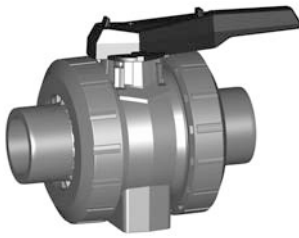
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	71	167 546 601	167 546 611	0.115
20	15	10	185	167 546 602	167 546 612	0.115
25	20	10	350	167 546 603	167 546 613	0.180
32	25	10	700	167 546 604	167 546 614	0.255
40	32	10	1000	167 546 605	167 546 615	0.440
50	40	10	1600	167 546 606	167 546 616	0.610
63	50	10	3100	167 546 607	167 546 617	1.145
75	65	10	5000	167 546 608	167 546 618	3.700
90	80	10	7000	167 546 609	167 546 619	5.500
110	100	10	11000	167 546 610	167 546 620	8.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	z [mm]
16	50	57	27	12	93	77	56	25	32	45	M6	67
20	50	57	27	12	95	77	56	25	32	45	M6	66
25	58	67	30	12	108	97	65	25	39	58	M6	77
32	68	73	36	12	118	97	71	25	39	58	M6	83
40	84	90	44	15	137	128	85	45	54	74	M8	99
50	97	97	51	15	147	128	89	45	54	74	M8	105
63	124	116	64	15	168	152	101	45	66	87	M8	117
75	166	149	85	15	233	270	136	70	64	206	M8	167
90	200	161	105	15	254	270	141	70	64	206	M8	180
110	238	178	123	22	301	320	164	120	64	256	M12	215

Ball Valve Type 546, PP-H SF with mounting inserts With socket fusion spigots metric



DN10/15 - 50



Model:

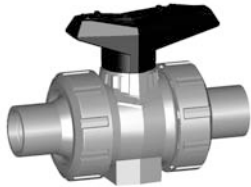
- Material: PP-H / silicone free cleaned
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Integrated stainless steel mounting inserts
- Double bagged
- Ball seals PVDF

Option:

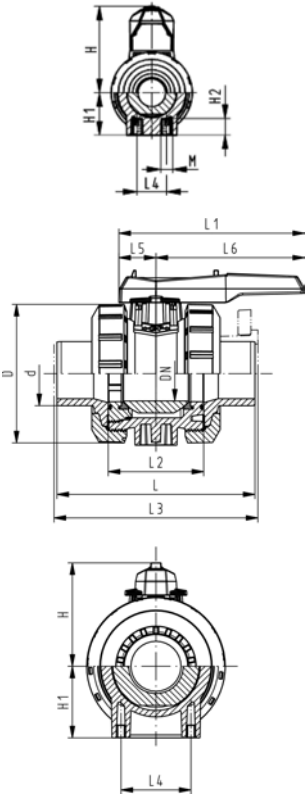
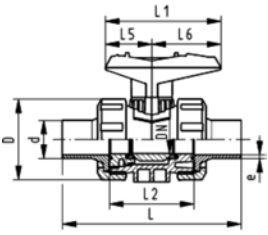
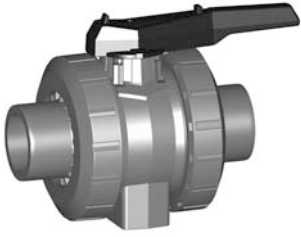
- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	71	167 546 621	167 546 631	0.120
20	15	10	185	167 546 622	167 546 632	0.120
25	20	10	350	167 546 623	167 546 633	0.180
32	25	10	700	167 546 624	167 546 634	0.260
40	32	10	1000	167 546 625	167 546 635	0.450
50	40	10	1600	167 546 626	167 546 636	0.640
63	50	10	3100	167 546 627	167 546 637	1.210
75	65	10	5000	167 546 628	167 546 638	3.800
90	80	10	7000	167 546 629	167 546 639	5.600
110	100	10	11000	167 546 630	167 546 640	8.800

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M
16	50	57	27	12	110	77	56		25	32	45	M6
20	50	57	27	12	120	77	56	130	25	32	45	M6
25	58	67	30	12	139	97	65	150	25	39	58	M6
32	68	73	36	12	150	97	71	160	25	39	58	M6
40	84	90	44	15	170	128	85	180	45	54	74	M8
50	97	97	51	15	190	128	89	200	45	54	74	M8
63	124	116	64	15	220	152	101	230	45	66	87	M8
75	166	149	85	15	280	270	136	290	70	64	206	M8
90	200	161	105	15	296	270	141	310	70	64	206	M8
110	238	178	123	22	336	320	164	350	120	64	256	M12



DN10/15 - 50



Ball Valve Type 546, PP-H SF with mounting inserts With butt fusion spigots IR-Plus SDR11 metric

Model:

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Integrated stainless steel mounting inserts
- Double bagged
- Ball seals PVDF

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	10	185	167 546 662	167 546 672	0.120
25	20	10	350	167 546 663	167 546 673	0.180
32	25	10	700	167 546 664	167 546 674	0.255
40	32	10	1000	167 546 665	167 546 675	0.440
50	40	10	1600	167 546 666	167 546 676	0.620
63	50	10	3100	167 546 667	167 546 677	1.200
75	65	10	5000	167 546 668	167 546 678	3.800
90	80	10	7000	167 546 669	167 546 679	5.500
110	100	10	11000	167 546 670	167 546 680	8.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	M	e [mm]
20	50	57	27	12	130	77	56	25	32	45	M6	1,9
25	58	67	30	12	143	97	65	25	39	58	M6	2,3
32	68	73	36	12	150	97	71	25	39	58	M6	3
40	84	90	44	15	171	128	85	45	54	74	M8	3,7
50	97	97	51	15	191	128	89	45	54	74	M8	4,6
63	124	116	64	15	220	152	101	45	66	87	M8	5,8
75	166	149	85	15	266	270	136	70	64	206	M8	8.2
90	200	161	105	15	264	270	141	70	64	206	M8	9.9
110	238	178	123	22	301	320	164	120	64	256	M12	12



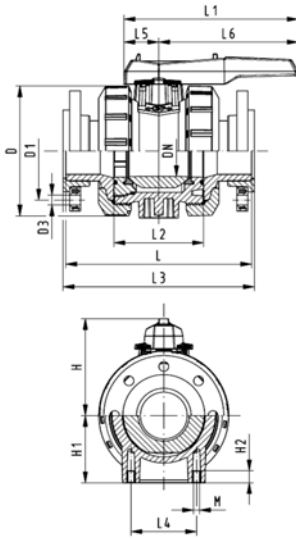
Ball Valve Type 546, PP-H SF with mounting inserts With backing flanges PP-st metric

Model:

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Integrated stainless steel mounting inserts
- Double bagged
- Ball seals PVDF
- Overall length according to EN 558
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	167 546 828	167 546 838	4.300
90	80	10	7000	167 546 829	167 546 839	6.400
110	100	10	11000	167 546 830	167 546 840	10.000

d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M
75	166	145	18	280	270	136	290	70	64	206	149	85	8
90	200	160	18	296	270	141	310	70	64	206	161	105	8
110	238	180	18	336	320	164	350	120	64	256	178	123	12



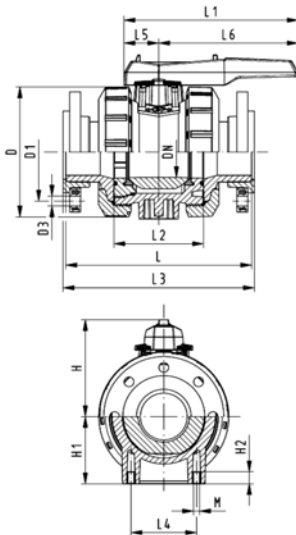
Ball Valve Type 546, PP-H SF with mounting inserts With backing flanges PP-st Inch ANSI

Model:

- Material: PP-H / silicone free cleaned
- For easy installation and removal
- z-dimension, valve end and union nut are **not compatible** with type 346 (DN10/15-50) resp. type 370 (DN65-100)
- Integrated stainless steel mounting inserts
- Double bagged
- Ball seals PTFE
- Overall length according to EN 558
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

Option:

- Individual configuration of the valve (see diagram)
- Multifunctional module with integrated limit switches

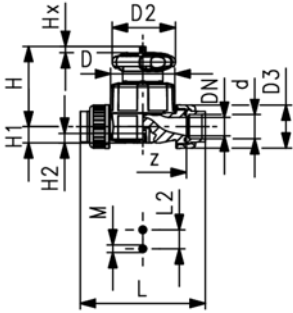


d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	167 546 888	167 546 898	4.300
90	80	10	7000	167 546 889	167 546 899	6.400
110	100	10	11000	167 546 890	167 546 900	10.000

d [mm]	D [mm]	D1 [mm]	D3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	H [mm]	H1 [mm]	M
75	166	140	19	280	270	136	290	70	64	206	149	85	8
90	200	152	19	296	270	141	310	70	64	206	161	105	8
110	238	191	19	336	320	164	350	120	64	256	178	123	12

Diaphragm valves silicon free

PROGEF Plus silicone free Diaphragm valve type 514 With fusion sockets metric



Model:

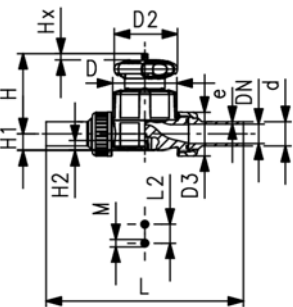
- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 514 022	167 514 072	0.371
25	20	10	271	167 514 023	167 514 073	0.499
32	25	10	481	167 514 024	167 514 074	1.101
40	32	10	759	167 514 025	167 514 075	1.297
50	40	10	1263	167 514 026	167 514 076	2.335
63	50	10	1728	167 514 027	167 514 077	3.058

d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	z [mm]	Lift = Hx [mm]
20	65	65	43	128	25	73	14	12	M6	100	7
25	80	65	51	150	25	81	18	12	M6	118	10
32	88	87	58	162	25	107	22	12	M6	126	13
40	101	87	72	184	45	115	26	15	M8	144	15
50	117	135	83	210	45	148	32	15	M8	164	19
63	144	135	100	248	45	166	39	15	M8	194	25



PROGEF Plus silicone free Diaphragm valve type 514 With butt fusion spigots SDR11 metric

Model:

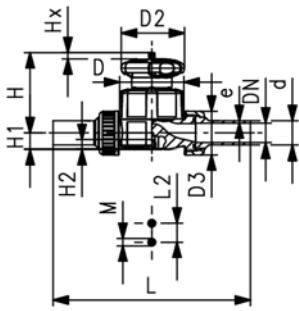
- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- For easy installation and removal
- Short overall length

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches

d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 514 122	167 514 172	0.379
25	20	10	271	167 514 123	167 514 173	0.511
32	25	10	481	167 514 124	167 514 174	1.121
40	32	10	759	167 514 125	167 514 175	1.329
50	40	10	1263	167 514 126	167 514 176	2.343
63	50	10	1728	167 514 127	167 514 177	3.072

table continued next page



d [mm]	D [mm]	D2 [mm]	D3 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	43	196	25	73	14	12	M6	7	1,9
25	80	65	51	221	25	81	18	12	M6	10	2,3
32	88	87	58	234	25	107	22	12	M6	13	2,9
40	101	87	72	260	45	115	26	15	M8	15	3,7
50	117	135	83	284	45	148	32	15	M8	19	4,6
63	144	135	100	321	45	166	39	15	M8	25	5,8



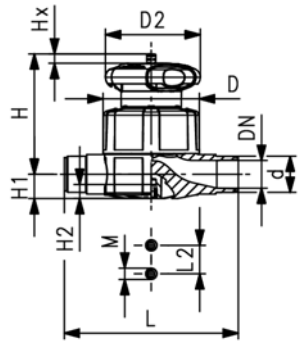
PROGEF Plus silicone free Diaphragm valve type 515 With socket fusion spigots metric

Model:

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 515 022	167 515 072	0.308
25	20	10	271	167 515 023	167 515 073	0.396
32	25	10	481	167 515 024	167 515 074	0.970
40	32	10	759	167 515 025	167 515 075	1.128
50	40	10	1263	167 515 026	167 515 076	2.087
63	50	10	1728	167 515 027	167 515 077	2.632

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	124	25	73	14	12	M6	7	1.9
25	80	65	144	25	81	18	12	M6	10	2.3
32	88	87	154	25	107	22	12	M6	13	2.9
40	101	87	174	45	115	26	15	M8	15	3.7
50	117	135	194	45	148	32	15	M8	19	4.6
63	144	135	223	45	166	39	15	M8	25	5.8



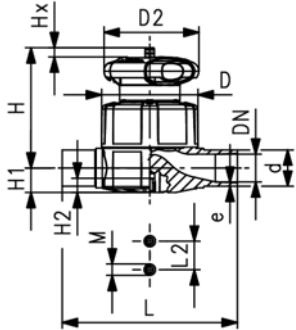
PROGEF Plus silicone free Diaphragm valve type 515 With butt fusion spigots SDR11 metric

Model:

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 515 122	167 515 172	0.307
25	20	10	271	167 515 123	167 515 173	0.392
32	25	10	481	167 515 124	167 515 174	0.968
40	32	10	759	167 515 125	167 515 175	1.124
50	40	10	1263	167 515 126	167 515 176	2.082
63	50	10	1728	167 515 127	167 515 177	2.629

d [mm]	D [mm]	D2 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]	e [mm]
20	65	65	124	25	73	14	12	M6	7	1.9
25	80	65	144	25	81	18	12	M6	10	2.3
32	88	87	155	25	107	22	12	M6	13	2.9
40	101	87	176	45	115	26	15	M8	15	3.7
50	117	135	193	45	148	32	15	M8	19	4.6
63	144	135	223	45	166	39	15	M8	25	5.8



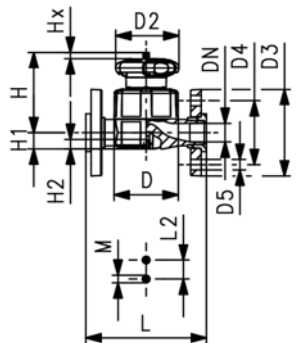
PROGEF Plus silicone free Diaphragm valve type 517 With backing flanges PP-V metric/BS

Model:

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Overall length EN 558
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10
- Flat sealing faces/serrated

Option:

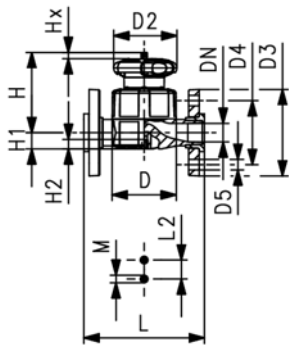
- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



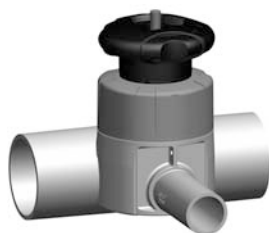
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	15	10	125	167 517 122	167 517 172	0.490
25	20	10	271	167 517 123	167 517 173	0.640
32	25	10	481	167 517 124	167 517 174	1.316
40	32	10	759	167 517 125	167 517 175	1.660
50	40	10	1263	167 517 126	167 517 176	2.601
63	50	10	1728	167 517 127	167 517 177	3.572

d [mm]	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
20	65	65	95	65	14	130	25	73	14	12	M6	7
25	80	65	105	75	14	150	25	81	18	12	M6	10
32	88	87	115	85	14	160	25	107	22	12	M6	13

table continued next page



d [mm]	D [mm]	D2 [mm]	D3 [mm]	D4 [mm]	D5 [mm]	L [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	M	Lift = Hx [mm]
40	101	87	140	100	18	180	45	115	26	15	M8	15
50	117	135	150	110	18	200	45	148	32	15	M8	19
63	144	135	165	125	18	230	45	166	39	15	M8	25



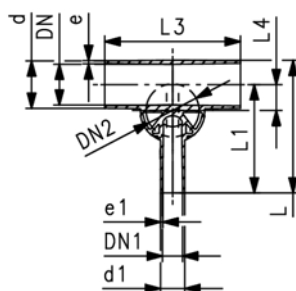
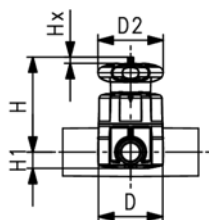
PROGEF Plus silicone free Diaphragm valve type 519 With butt fusion spigots SDR11 metric

Model:

- Material: PP-H / silicone free cleaned
- Double flow rate compared to predecessor
- One housing nut replaces four screws
- Handwheel with built-in locking mechanism
- Smallest possible dead space

Option:

- Individual configuration of the valve (see diagram)
- Self adjusting multifunctional module with integrated limit switches



d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	DN2 [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	PTFE/EPDM Code	kg
20	20	15	15	15	10	57	167 519 201	167 519 701	0.321
25	20	20	15	20	10	89	167 519 203	167 519 703	0.397
25	25	20	20	20	10	118	167 519 204	167 519 704	0.399
32	20	25	15	20	10	80	167 519 207	167 519 707	0.424
32	25	25	20	20	10	105	167 519 208	167 519 708	0.426
32	32	25	25	25	10	231	167 519 209	167 519 709	0.980
40	20	32	15	25	10	85	167 519 212	167 519 712	1.008
50	20	40	15	20	10	86	167 519 218	167 519 718	0.485
50	25	40	20	25	10	160	167 519 219	167 519 719	1.054
50	32	40	25	25	10	206	167 519 220	167 519 720	1.056
63	20	50	15	20	10	84	167 519 225	167 519 725	0.524
63	25	50	20	25	10	150	167 519 226	167 519 726	1.097
63	32	50	25	25	10	184	167 519 227	167 519 727	1.100

d [mm]	D [mm]	D2 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	H [mm]	Lift = Hx [mm]	e [mm]	e1 [mm]
20	65	65	117	96	162	12	75	7	1.9	1.9
25	80	65	133	108	162	16	80	10	2.3	1.9
25	80	65	133	108	162	16	80	10	2.3	2.3
32	80	65	142	120	162	19	84	10	2.9	1.9
32	80	65	142	120	162	19	84	10	2.9	2.3
32	88	87	145	120	160	19	107	13	2.9	2.9
40	88	87	149	128	180	23	115	13	3.7	1.9
50	80	65	160	134	180	27	97	10	4.6	1.9
50	88	87	160	134	180	28	120	13	4.6	2.3
50	88	87	160	134	180	28	120	13	4.6	2.9
63	80	65	177	144	180	33	104	10	5.8	1.9
63	88	87	177	144	180	35	127	13	5.8	2.3
63	88	87	177	144	180	35	127	13	5.8	2.9

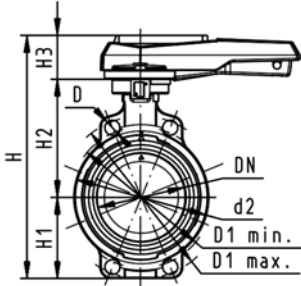
Butterfly valves

PROGEF Plus silicone free Butterfly valve type 567 Hand lever with ratchet settings

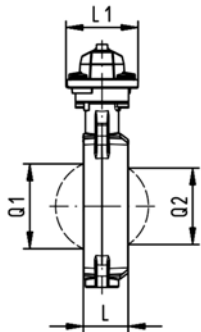


Model:

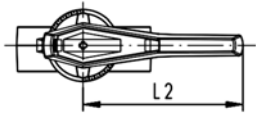
- Material: PP-H / silicone free cleaned
- Up to DN 300: Overall length according to EN558 (DN 50-200: line 25, DN250, 300 line 16), ISO 5752
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- We recommend for the dimensions DN250 and DN300 only 6 bar maximum system pressure for the hand lever version



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 567 402	167 567 422	0.969
75	65	2 ½	10	2200	167 567 403	167 567 423	1.061
90	80	3	10	3000	167 567 404	167 567 424	1.191
110	100	4	10	6500	167 567 405	167 567 425	1.751
140	125	5	10	11500	167 567 406	167 567 426	2.199
160	150	6	10	16600	167 567 407	167 567 427	2.989
225	200	8	10	39600	167 567 408	167 567 428	4.706



d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	19	120.0	125.0	104	264	77	134	54	45	106	205	40	
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	19	175.0	190.5	161	325	104	167	55	56	106	255	88	74
140	23	210.0	215.9	187	352	117	181	55	64	106	255	113	97
160	24	241.3	241.3	215	373	130	189	55	72	106	255	139	123
225	23	290.0	295.0	267	435	158	210	67	73	140	408	178	169

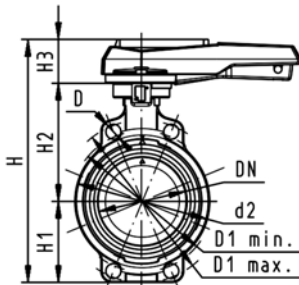




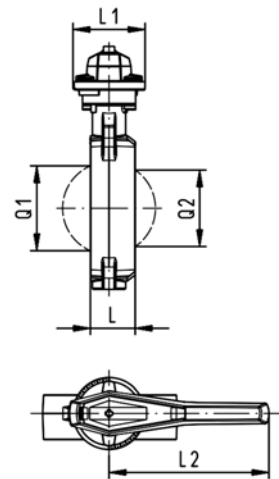
PROGEF Plus oil free Butterfly valve type 567 Hand lever with ratchet settings

Model:

- Material: PP-H / oil free cleaned
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558, ISO 5752



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	kg
63	50	2	10	1470	167 567 502	0.965
75	65	2 ½	10	2200	167 567 503	1.056
90	80	3	10	3000	167 567 504	1.184
110	100	4	10	6500	167 567 505	1.737
140	125	5	10	11500	167 567 506	2.181
160	150	6	10	16600	167 567 507	2.966
225	200	8	10	39600	167 567 508	4.678



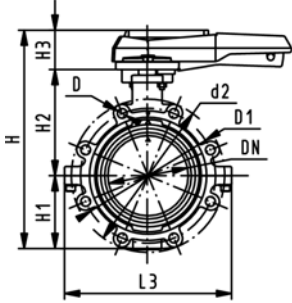
d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	Q1 [mm]	Q2 [mm]
63	19	120.0	125.0	104	264	77	134	54	45	106	205	40	
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	19	175.0	190.5	161	325	104	167	55	56	106	255	88	74
140	23	210.0	215.9	187	352	117	181	55	64	106	255	113	97
160	24	241.3	241.3	215	373	130	189	55	72	106	255	139	123
225	23	290.0	295.0	267	435	158	210	67	73	140	408	178	169



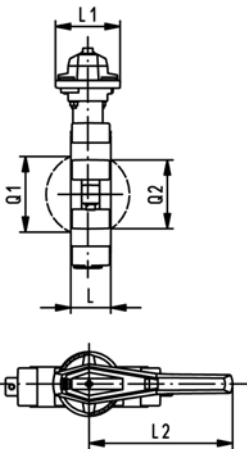
PROGEF Plus silicone free Lugstyle butterfly valve type 568 Hand lever with ratchet settings

Model:

- Material: PP-H / silicone free cleaned
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension: ISO 7005 PN10, EN 1092 PN10, DIN 2501 PN10
- Overall length according to EN 558, ISO 5752



d [mm]	DN [mm]	Inch	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
63	50	2	10	1470	167 568 402	167 568 422	3.055
75	65	2 ½	10	2200	167 568 403	167 568 423	3.397
90	80	3	10	3000	167 568 404	167 568 424	4.402
110	100	4	10	6500	167 568 405	167 568 425	5.835
140	125	5	10	11500	167 568 406	167 568 426	7.665
160	150	6	10	16600	167 568 407	167 568 427	9.449
225	200	8	10	39600	167 568 408	167 568 428	14.654



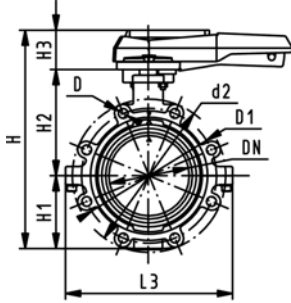
d [mm]	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
63	150	M16	125	265	77	134	54	45	106	205	150	40	
75	170	M16	145	277	83	140	54	46	106	205	160	54	35
90	184	M16	160	289	89	146	54	49	106	205	205	67	50
110	216	M16	180	326	104	167	55	56	106	255	244	88	74
140	246	M16	210	353	117	181	55	64	106	255	272	113	97
160	273	M20	240	374	130	189	55	72	106	255	297	139	123
225	334	M20	295	435	158	210	67	73	140	408	360	178	169



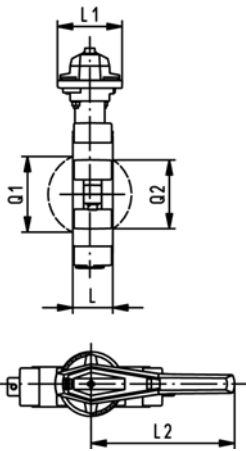
PROGEF Plus silicone free Lugstyle butterfly valve 568 ANSI Hand lever with ratchet settings

Model:

- Material: PP-H / silicone free cleaned
- Outer body in GGG-40.3 epoxy-coated
- Connecting dimension ANSI/ASME B 16.5 Class 150, BS 4504 PN10
- Overall length according to EN 558, ISO 5752



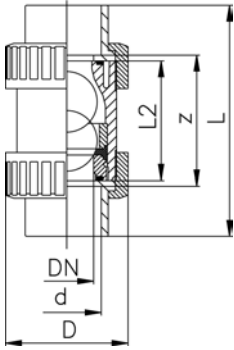
Inch	d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
2	63	50	10	1470	167 568 502	167 568 522	3.055
2 ½	75	65	10	2200	167 568 503	167 568 523	3.397
3	90	80	10	3000	167 568 504	167 568 524	3.773
4	110	100	10	6500	167 568 505	167 568 525	5.835
5	140	125	10	11500	167 568 506	167 568 526	7.665
6	160	150	10	16600	167 568 507	167 568 527	9.449
8	225	200	10	39600	167 568 508	167 568 528	14.654



Inch	d2 [mm]	D	D1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]	Q2 [mm]
2	150	UNC 5/8	121	265	77	134	54	45	106	205	150	40	
2 ½	170	UNC 5/8	138	277	83	140	54	46	106	205	160	54	35
3	177	UNC 5/8	152	289	89	146	54	49	106	205	175	67	50
4	216	UNC 5/8	191	326	104	167	55	56	106	255	244	88	74
5	246	UNC 3/4	216	353	117	181	55	64	106	255	272	113	97
6	273	UNC 3/4	241	374	130	189	55	72	106	255	297	139	123
8	334	UNC 3/4	298	435	158	210	67	73	140	408	360	178	169

Ball Check Valves

PROGEF® PLUS silicone free Ball check valve type 360 PP-H SF With fusion sockets

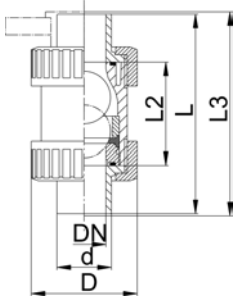


Model:

- Material: PP-H / silicone free cleaned
- Double bagged
- For easy installation and removal

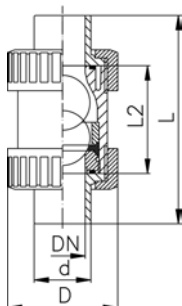
d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]	z [mm]
16	10	10	170	167 360 601	167 360 611	0.079	46	98	62	72
20	15	10	150	167 360 602	167 360 612	0.079	46	101	62	73
25	20	10	330	167 360 603	167 360 613	0.134	56	119	74	87
32	25	10	390	167 360 604	167 360 614	0.203	67	130	78	94
40	32	10	710	167 360 605	167 360 615	0.380	82	149	88	109
50	40	10	900	167 360 606	167 360 616	0.612	98	162	94	118
63	50	10	1390	167 360 607	167 360 617	1.116	120	195	113	143

PROGEF® PLUS silicone free Ball check valve type 360 PP-H SF With socket fusion spigots



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
16	10	10	170	167 360 621	167 360 631	0.080	46	109	62
20	15	10	150	167 360 622	167 360 632	0.080	46	119	62
25	20	10	330	167 360 623	167 360 633	0.136	56	140	74
32	25	10	390	167 360 624	167 360 634	0.208	67	150	78
40	32	10	710	167 360 625	167 360 635	0.386	82	171	88
50	40	10	900	167 360 626	167 360 636	0.631	97	191	94
63	50	10	1390	167 360 627	167 360 637	1.149	119	220	113

**PROGEF® PLUS silicone free
Ball check valve type 360 PP-H SF
With butt fusion ends SDR11**



d [mm]	DN [mm]	PN	kv-value ($\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	D [mm]	L [mm]	L2 [mm]
20	15	10	150	167 360 642	167 360 652	0.080	46	119	62
25	20	10	330	167 360 643	167 360 653	0.136	56	140	74
32	25	10	390	167 360 644	167 360 654	0.208	67	150	78
40	32	10	710	167 360 645	167 360 655	0.386	82	171	88
50	40	10	900	167 360 646	167 360 656	0.631	97	191	94
63	50	10	1390	167 360 647	167 360 657	1.149	119	220	113

PE 100



- Pipes
- Socket Fusion Fittings
- Butt Fusion Fittings
- Electrofusion Fittings

Pressure Ratings for PE-Fittings and PE-Pipes

	SDR11	SDR17.6
PE 80 C = 1.25	PN12.5	PN7.5
PE 80 C = 1.6	PN10	PN6
PE 100 C = 1.25	PN16	PN10
PE 100 C = 1.6	PN12.5	PN7.5

Polyethylene PE 100 – the third Generation of polyethylene

Pressure/temperature diagram for PE PE 100

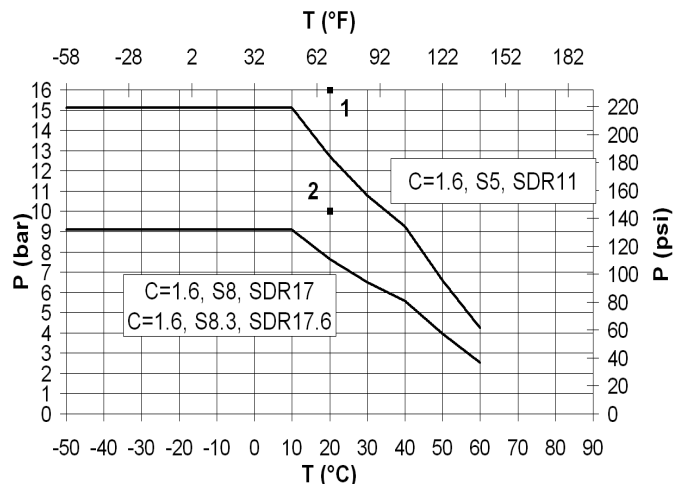
The following pressure/temperature diagram for PE100 pipes and fittings is valid for a lifetime of 25 years.

The design factor of 1.6 (respective 1.25) recommended by GF is incorporated.

It can be used for water or media resembling water, in other words, media which have no derating factor regarding the chemical resistance.

Remark: Please take into account the pressure/temperature diagrams for valves and special fittings. Because of the construction and/or sealing material used, differences are possible when compared with pipes and fittings. This information can be found in the planning fundamentals of the relevant types of valves, respectively special fittings.

In case of long-term applications at continuous pressure with temperatures above 40 °C, please contact your GF representative.



- 1 Design Factor C = 1.25, S5, SDR11 for 20 °C water, 50 years
- 2 Design Factor C=1.25, S8.3, SDR17.6 and S8, SDR17 for 20°C water, 50 years
- P Permissible pressure in bar, psi
- T Temperature in °C, °F

Pressure/temperature diagram for PE PE 80

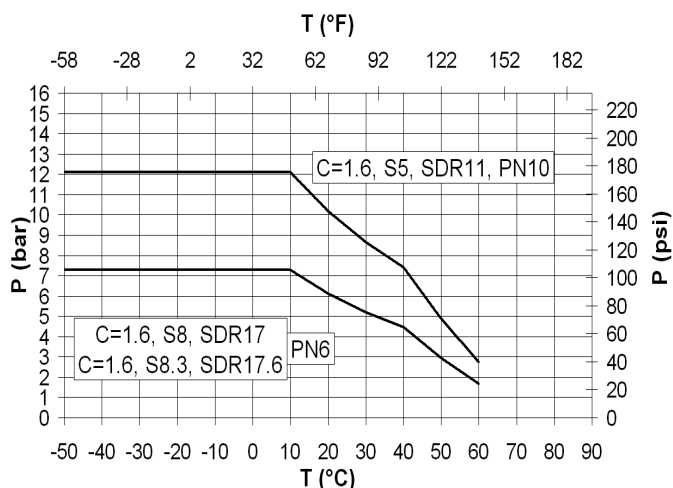
The following pressure/temperature diagram for PE80 pipes and fittings is valid for a lifetime of 25 years.

The design factor of 1.6 recommended by GF is incorporated.

It can be used for water or media resembling water, in other words, media which have no derating factor regarding the chemical resistance.

Remark: Please take into account the pressure/temperature diagrams for valves and special fittings. Because of the construction and/or sealing material used, differences are possible when compared with pipes and fittings. This information can be found in the planning fundamentals of the relevant types of valves, respectively special fittings.

In case of long-term applications at continuous pressure with temperatures above 40 °C please contact your GF representative.



- P Permissible pressure in bar, psi
- T Temperature in °C, °F

Comparison of nominal pressure for SDR17 and SDR17.6

Ascertaining the nominal pressure (PN)

According to the standard, the nominal pressure is a numeric measure of the size of a pipeline part, which refers to the mechanical properties of that pipeline part. Besides the geometric sizes such as SDR, the creep strength/dimensioning tension and the minimum design factor are also taken into consideration.

For plastic piping systems intended to carry water, the nominal pressure value indicates the maximum permitted operating pressure in bar, at a temperature of 20°C, and 50 years in water, referenced to the minimum value of the total (calculation) coefficients. It is calculated using the following equation:

$$[PN] = 10 \cdot \sigma_S / [S] = 20 \cdot \sigma_S / (SDR - 1) \quad (\sigma_S \text{ in MPa, PN in bar})$$

Minimum required strength (MRS):

The value of σ_{LCL} at 20°C and 50 years in water, rounded down to the next value in the R10 standard series of numbers.

σ_{LCL} is understood to mean the equivalent stress ascertained for a given period and a given temperature from the time-dependent creep diagram. LCL stands for Lower Confidence Limit. The R10 standard series of numbers is a Renard standard series of numbers as per ISO 3 and ISO 497.

Design stress (σ_S):

The permitted stress for a particular application or operating conditions stated in megapascal. It is derived by dividing the MRS by coefficient C and is calculated as shown in the equation below:

$$\sigma_S = MRS / C$$

The calculated value is rounded down to the next value in the R10 standard series of numbers.

Total operating (calculation) coefficient (C):

A total coefficient having a value greater than one, which takes into account both the operating conditions and also the characteristics of the pipeline component that have not yet been entered into the lower confidence limit σ_{LCL} .

If we use the above definition to calculate the relevant nominal pressure for both SDR classes, the result for a PE 100 pipe is as follows:

SDR17	SDR17.6
MRS = 10 MPa	MRS = 10 MPa
C = 1.25 (minimum factor)	C = 1.25 (minimum factor)
$\sigma = 8.0$ MPa	$\sigma = 8.0$ MPa
PN = 10 bar	PN = 9.6 bar

The above definitions thus produce a difference of 0.4 bar in PN, but in actual practice this does not matter, as shown below:

1.) Industrial pipelines are normally designed for a service life of 25 years. If from the time-dependent creep diagrams we ascertain for ELTEX TUB 121 or CRP 100 an equivalent stress of σ_{LCL} for the operating point of 25 years and 20°C, we obtain a tension of 10.6 MPa (minimum value of both PE100 materials as per manufacturer's data).

2.) If we use this tension to ascertain the dimensioning tension σ_S , and do not round it down, we obtain the value of 8.48 MPa.

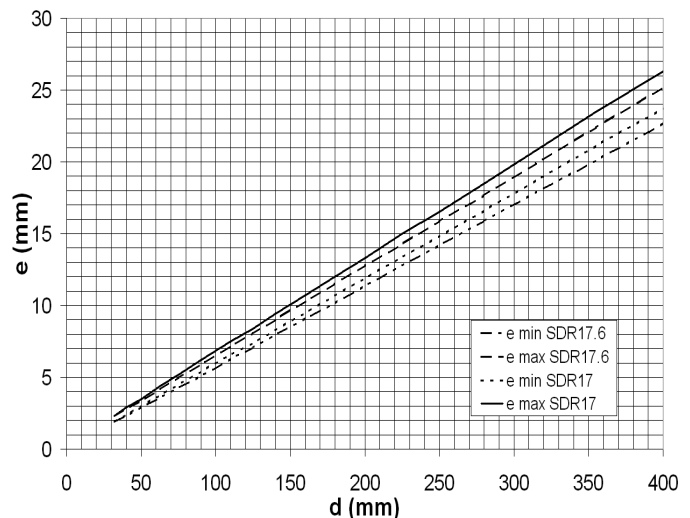
3.) Thus the actual nominal pressure in practice is:

for SDR 17 => PN = 10.6 bar and for SDR 17.6 => PN = 10.2 bar.

To summarise: Both SDR classes comply with requirements for industrial applications mentioning a PN10 system.

Comparison of geometric dimensions

The two SDR classes differ only slightly in wall thickness, as can be seen from the diagram below. This shows that there is an area where the wall thickness complies with both requirements of both SDR classes.



d Outside pipe diameter
e Wall thickness

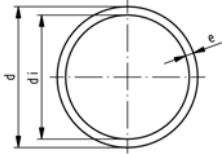
For butt fusion the wall thickness gap may not exceed 10%. Looking at the differences of the wall thicknesses of SDR17 and SDR17.6 the resulting gap is much lower, that means butt fusion of both SDR's is no problem.

PE Industrial Systems Pipes, Fittings, Unions, Flanges and Flange Adaptors

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PE100 pipes

93 01 71



Pipe PE100 S5/SDR11

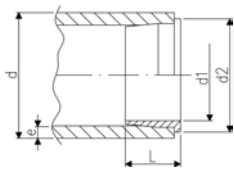
Model:

- Material: PE 100, Polyethylene
- Colour: RAL 9011 graphite black
- Dimension: DIN 8074
- Pipe length: 5m, with plain ends

* In these two sizes, stiffeners Code No. 733 900 006 (20 x 1,9) and 733 900 007 (25 x 2.3) must be used with socket fusion joints.

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
* 20	16	193 017 156	0.113	1,9	16.2
* 25	16	193 017 157	0.173	2,3	20.4
32	16	193 017 158	0.274	2,9	26.2
40	16	193 017 159	0.434	3,7	32.6
50	16	193 017 160	0.673	4,6	40.8
63	16	193 017 161	1.060	5,8	51.4
75	16	193 017 162	1.480	6,8	61.4
90	16	193 017 163	2.140	8,2	73.6
110	16	193 017 164	3.180	10,0	90.0
125	16	193 017 165	4.120	11,4	102.8
140	16	193 017 166	5.130	12,7	114.6
160	16	193 017 167	6.740	14,6	130.8
180	16	193 017 168	8.510	16,4	147.2
200	16	193 017 169	10.500	18,2	163.6
225	16	193 017 170	13.300	20,5	184.0
250	16	193 017 171	16.300	22,7	204.6
280	16	193 017 172	20.500	25,4	229.2
315	16	193 017 173	25.900	28,6	257.8
355	16	193 017 174	32.900	32,2	290.6
400	16	193 017 175	41.700	36,3	327.4

33 90 00



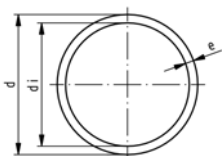
Stiffener PE100

Model:

- Material: PE100
- Used as support during d20 and d25 socket fusion jointing to prevent the pipe from collapsing during the heating and jointing process.

d [mm]	Code	L [mm]	e [mm]	d1 [mm]	D2 [mm]	d2 [mm]
20	733 900 006	10	1,9	14	18	18
25	733 900 007	11	2,3	18	22	23

93 01 72



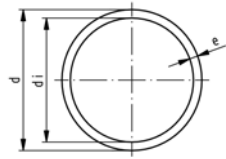
Pipe PE100 S3.2/SDR7.4

Model:

- Dimension: DIN 8074
- Colour: RAL 9011 graphite black
- Length: 5 m
- for socket fusion without stiffeners
- Not suitable for butt fusion

d [mm]	Code	kg/m	e [mm]	di [mm]
20	193 017 206	0.156	2,8	14.4
25	193 017 207	0.243	3,5	18.0

93 01 71



Pipe PE100 S8.3/SDR17.6

Model:

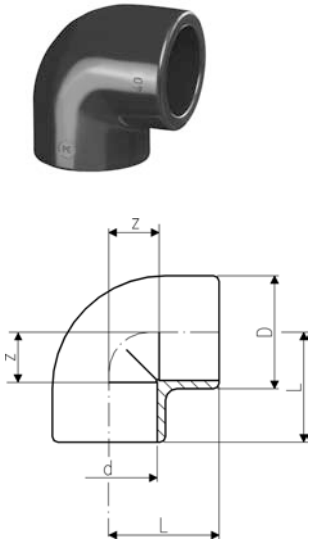
- Material: PE 100, Polyethylene
- Colour: RAL 9011 graphite black
- Dimension: DIN 8074
- Pipe length: 5m, with plain ends

d [mm]	PN	Code	kg/m	e [mm]	di [mm]
50	10	193 017 110	0.445	2,9	44.2
63	10	193 017 111	0.695	3,6	55.8
75	10	193 017 112	0.987	4,3	66.4
90	10	193 017 113	1.400	5,1	79.8
110	10	193 017 114	2.100	6,3	97.4
125	10	193 017 115	2.690	7,1	110.8
140	10	193 017 116	3.270	8,0	124.0
160	10	193 017 117	4.400	9,1	141.8
180	10	193 017 118	5.540	10,2	159.6
200	10	193 017 119	6.860	11,4	177.2
225	10	193 017 120	8.630	12,8	199.4
250	10	193 017 121	10.700	14,2	221.6
280	10	193 017 122	13.300	15,9	248.2
315	10	193 017 123	16.900	17,9	279.2
355	10	193 017 124	21.400	20,1	290.6
400	10	193 017 125	27.200	22,7	354.6
450	10	193 017 126	34.300	25,5	400.0
500	10	193 017 127	42.500	28,4	443.2

Fittings for Socket Fusion

33 10 01

Elbow 90° PE80



d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]
20	10	733 100 106	0.022	0.022	31	28	14
25	10	733 100 107	0.032	0.032	36	32	16
32	10	733 100 108	0.048	0.048	44	38	20
40	10	733 100 109	0.080	0.080	54	44	24
50	10	733 100 110	0.130	0.130	66	51	28
63	10	733 100 111	0.229	0.229	82	62	35
75	10	733 100 112	0.320	0.320	93	76	45
90	10	733 100 113	0.502	0.502	110	88	53
110	10	733 100 114	0.864	0.864	134	106	65

33 15 01

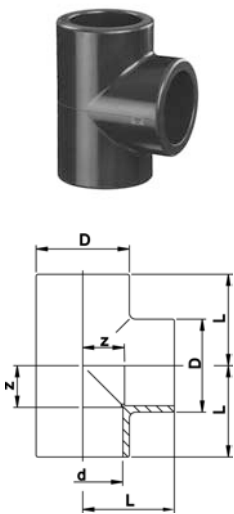
Elbow 45° PE80



d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]
20	10	733 150 106	0.018	0.018	31	21	7
25	10	733 150 107	0.026	0.026	36	24	8
32	10	733 150 108	0.038	0.038	44	28	10
40	10	733 150 109	0.061	0.061	53	33	13
50	10	733 150 110	0.088	0.088	64	36	13
63	10	733 150 111	0.184	0.184	82	43	16
75	10	733 150 112	0.232	0.232	93	51	20
90	10	733 150 113	0.415	0.415	114	58	23
110	10	733 150 114	0.658	0.658	134	68	27

33 20 01

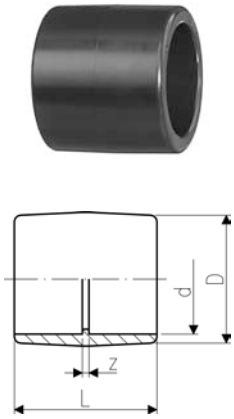
Tee 90° equal PE80



d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]
20	10	733 200 106	0.028	0.028	31	28	14
25	10	733 200 107	0.041	0.041	36	32	16
32	10	733 200 108	0.060	0.060	44	38	20
40	10	733 200 109	0.101	0.101	54	44	24
50	10	733 200 110	0.163	0.163	66	51	28
63	10	733 200 111	0.300	0.300	82	62	35
75	10	733 200 112	0.408	0.408	93	76	45
90	10	733 200 113	0.747	0.747	114	88	53
110	10	733 200 114	1.113	1.113	134	106	65

33 91 01

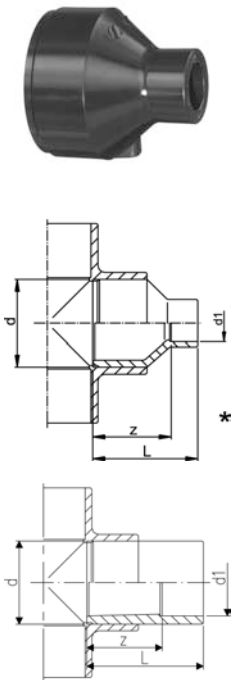
Sockets equal, PE80



d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]
20	10	733 910 106	0.014	0.014	31	35	7
25	10	733 910 107	0.019	0.019	36	39	7
32	10	733 910 108	0.027	0.027	44	43	7
40	10	733 910 109	0.043	0.043	54	48	8
50	10	733 910 110	0.077	0.077	66	54	8
63	10	733 910 111	0.126	0.126	82	62	8
75	10	733 910 112	0.154	0.154	93	70	8
90	10	733 910 113	0.234	0.234	112	81	11
110	10	733 910 114	0.428	0.428	134	96	14

33 91 03

Reducers, PE80



d [mm]	d1 [mm]	PN	Code	kg	kg/m	L [mm]	z [mm]
25	20	10	733 910 337	0.013	0.013	39	23
32	25	10	733 910 341	0.021	0.021	43	27
* 40	20	10	733 910 348	0.023	0.023	48	34
* 40	25	10	733 910 347	0.027	0.027	48	32
40	32	10	733 910 346	0.032	0.032	48	30
* 50	32	10	733 910 353	0.042	0.042	54	36
50	40	10	733 910 352	0.049	0.049	54	34
* 63	20	10	733 910 362	0.057	0.057	64	50
* 63	25	10	733 910 361	0.060	0.060	64	48
* 63	32	10	733 910 360	0.065	0.065	64	46
* 63	40	10	733 910 359	0.070	0.070	64	44
63	50	10	733 910 358	0.086	0.086	64	41
75	63	10	733 910 364	0.103	0.103	62	35
* 90	63	10	733 910 371	0.192	0.192	88	62
90	75	10	733 910 370	0.146	0.146	70	39
110	90	10	733 910 376	0.253	0.253	81	45

33 96 01

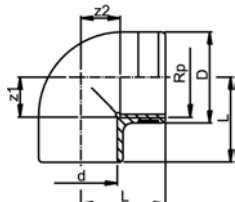
End Caps, PE80



d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]
20	10	733 960 106	0.010	0.010	30	27
25	10	733 960 107	0.016	0.016	36	30
32	10	733 960 108	0.025	0.025	44	34
40	10	733 960 109	0.038	0.038	53	38
50	10	733 960 110	0.061	0.061	65	44
63	10	733 960 111	0.096	0.096	80	51
75	10	733 960 112	0.157	0.157	91	66
90	10	733 960 113	0.272	0.272	111	77
110	10	733 960 114	0.414	0.414	137	93

Adaptor Fittings for Socket Fusion

33 10 02



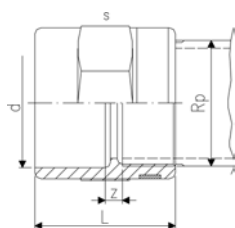
Elbow 90°, PE80 metric - Rp

Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PE
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	kg/m	D [mm]	L [mm]	z1 [mm]	z2 [mm]
20	½	10	733 100 206	0.024	0.024	30	28	14	14
25	¾	10	733 100 207	0.033	0.033	35	32	16	16
32	1	10	733 100 208	0.061	0.061	44	38	20	20
40	1 ¼	10	733 100 209	0.094	0.094	54	44	24	24

33 91 02



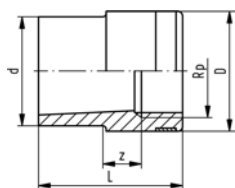
Adaptor Sockets, PE80 metric - Rp

Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PE
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	kg/m	L [mm]	s [mm]	z [mm]
20	½	10	733 910 206	0.020	0.020	35	32	7
25	¾	10	733 910 207	0.026	0.026	39	36	7
32	1	10	733 910 208	0.043	0.043	45	46	7
40	1 ¼	10	733 910 209	0.070	0.070	53	55	7
50	1 ½	10	733 910 210	0.099	0.099	54	65	9
63	2	10	733 910 211	0.159	0.159	62	80	9

33 91 04



Reducing bush PE80 metric Rp

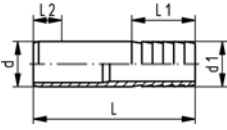
Model:

- With fusion spigot metric and BSP parallel female thread, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PE
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	kg	kg/m	L [mm]	z [mm]
20	¾	10	733 910 434	0.012	0.012	33	7
25	½	10	733 910 437	0.017	0.017	37	6
32	¾	10	733 910 441	0.027	0.027	43	8
40	1	10	733 910 446	0.046	0.046	49	9
50	1 ¼	10	733 910 452	0.071	0.071	55	10

53 96 04

Hose connector PE100 metric



Model:

- With socket fusion spigot metric and parallel hose connection

d [mm]	d1 [mm]	PN	Code	kg	kg/m	L [mm]	L1 [mm]	L2 [mm]
20	20	10	753 960 406	0.007	0.007	55	27	14
25	25	10	753 960 407	0.015	0.015	68	36	16
32	32	10	753 960 408	0.021	0.021	77	36	18
40	40	10	753 960 409	0.030	0.030	80	42	20
50	50	10	753 960 410	0.064	0.064	90	48	23
63	60	10	753 960 411	0.092	0.092	100	50	27

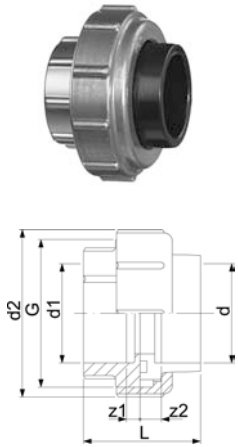
Unions for Socket Fusion

33 58 01

Adapter union PE80 - PE80 metric

Model:

- Union Ends: Fusion sockets, PE80 metric
- Union Bush: Brass
- Union Nut: brass
- Gasket: O-ring NBR (Nitrile-rubber)



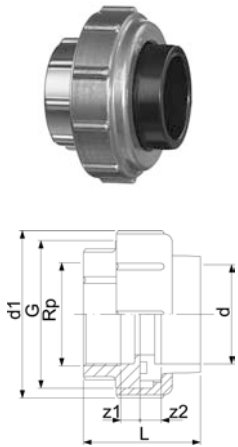
d [mm]	d1 [mm]	PN	Code	kg	kg/m	G [inch]	L [mm]	z1 [mm]	D2 [mm]	d2 [mm]	z2 [mm]
20	20	10	733 580 106	0.163	0.163	1 1/4	46	6	46	46	3
25	25	10	733 580 107	0.214	0.214	1 1/2	49	6	52	52	3
32	32	10	733 580 108	0.294	0.294	2	51	6	64	64	3
40	40	10	733 580 109	0.473	0.473	2 1/2	56	8	79	79	3
50	50	10	733 580 110	0.491	0.491	2 2/3	61	8	85	85	3
63	63	10	733 580 111	0.730	0.730	3 1/2	69	8	104	104	3

33 58 02

Adaptor union PE80 - brass metric Rp

Model:

- Union Ends: Fusion sockets, PE80 metric
- Union bush: nickel-plated, parallel female thread Rp
- Union Nut: brass
- Gasket: O-ring NBR (Nitrile-rubber)



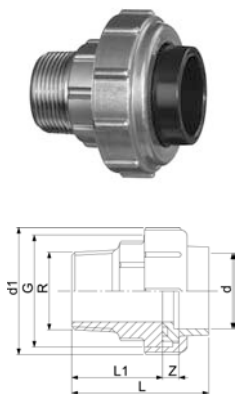
d [mm]	Rp [inch]	PN	Code	kg	kg/m	G [inch]	L [mm]	d1 [mm]	z1 [mm]	z2 [mm]
20	1/2	10	733 580 206	0.209	0.209	1 1/4	46	46	6	10
25	3/4	10	733 580 207	0.269	0.269	1 1/2	48	52	6	9
32	1	10	733 580 208	0.371	0.371	2	51	64	6	8
40	1 1/4	10	733 580 209	0.596	0.596	2 1/2	56	79	8	7
50	1 1/2	10	733 580 210	0.666	0.666	2 3/4	59	85	8	7
63	2	10	733 580 211	0.960	0.960	3 1/2	65	104	8	5

33 58 07

Adaptor union PE80 - brass metric R

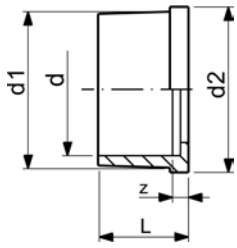
Model:

- Union Ends: Fusion sockets, PE80 metric
- Union bush: nickel-plated, taper male thread R
- Union Nut: brass
- Gasket: O-ring NBR (Nitrile-rubber)



d [mm]	R [inch]	PN	Code	kg	kg/m	d1 [mm]	G [inch]	L [mm]	L1 [mm]	z [mm]
20	1/2	10	733 580 706	0.260	0.260	46	1 1/4	62	40	6
25	3/4	10	733 580 707	0.324	0.324	52	1 1/2	65	41	6
32	1	10	733 580 708	0.470	0.470	64	2	71	45	6
40	1 1/4	10	733 580 709	0.754	0.754	79	2 1/2	78	48	8
50	1 1/2	10	733 580 710	0.781	0.781	85	2 3/4	81	43	8
63	2	10	733 580 711	1.166	1.166	104	3 1/2	91	54	8

34 60 01



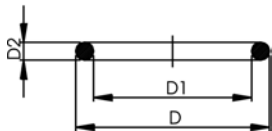
Union end PE80

Model:

- With fusion socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 514

d [mm]	PN	Code	kg	kg/m	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	z [mm]
20	10	734 600 106	0.006	0.006	28	30	19	5	5
25	10	734 600 107	0.012	0.012	36	39	21	5	5
32	10	734 600 108	0.015	0.015	42	45	23	6	5
40	10	734 600 109	0.026	0.026	53	57	25	6	5
50	10	734 600 110	0.027	0.027	59	63	28	7	5
63	10	734 600 111	0.045	0.045	74	79	32	8	5

EPDM 48 41 00
FPM 49 41 00



O-Ring Gaskets

Model:

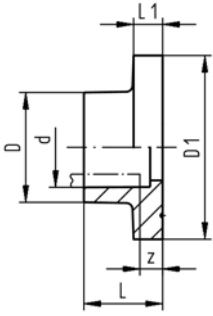
- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FPM minimum temperature -15°C

* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

d [mm]	DN [mm]	EPDM Code	FPM Code	kg	kg/m	D [mm]	D1 [mm]	D2 [mm]
10 - 12	8	748 410 004	749 410 004	0.002	0.002	18	12	2.62
16	10	748 410 005	749 410 005	0.002	0.002	21	16	2.62
20	15	748 410 006	749 410 006	0.002	0.002	27	20	3.53
25	20	748 410 007	749 410 007	0.002	0.002	35	28	3.53
32	25	748 410 008	749 410 008	0.002	0.002	40	33	3.53
40	32	748 410 009	749 410 009	0.006	0.006	51	41	5.34
50	40	748 410 010	749 410 010	0.007	0.007	58	47	5.34
63	50	748 410 011	749 410 011	0.010	0.010	70	60	5.34
75	65	748 410 014	749 410 014	0.012	0.012	93	82	5.34
90	80	748 410 015	749 410 015	0.015	0.015	112	101	5.34
* 90	80	748 410 248	749 410 248	0.020	0.020	105	95	5.34
110	100	748 410 016	749 410 016	0.031	0.031	134	120	6.99

Flange Adaptors, Flanges and Gaskets for Socket Fusion

53 79 02



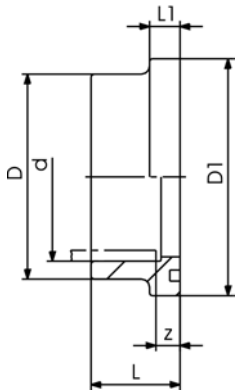
Flange adaptor PE100 Jointing face flat/serrated

Model:

- Counterpart: Flange Adaptor flat/serrated or with O-ring groove
- Connection: according to EN ISO 15494-, DIN 16963-11
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07
- Flanges: PP with steel core, No. 27 70 02, PP-V, No 27 70 04

d [mm]	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
20	15	10	753 790 206	0.013	0.013	27	45	19	7	5
25	20	10	753 790 207	0.025	0.025	33	58	21	9	5
32	25	10	753 790 208	0.037	0.037	41	68	23	10	5
40	32	10	753 790 209	0.052	0.052	50	78	25	11	5
50	40	10	753 790 210	0.069	0.069	61	88	28	12	5
63	50	10	753 790 211	0.102	0.102	76	102	32	14	5
75	65	10	753 790 212	0.163	0.163	90	122	36	16	5
90	80	10	753 790 213	0.233	0.233	108	138	42	17	7
110	100	10	753 790 214	0.319	0.319	131	158	48	18	7

33 81 01



Flange adaptor PE80 Jointing face with o-ring groove

Model:

- Counterpart: Flange adaptor flat/serrated 53 79 02
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- Flanges: PP with steel core, No. 27 70 02, PP-V, No 27 70 04

d [mm]	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
20	15	10	733 810 106	0.008	0.008	27	34	22	9	8
25	20	10	733 810 107	0.012	0.012	33	41	24	10	8
32	25	10	733 810 108	0.019	0.019	41	50	26	10	8
40	32	10	733 810 109	0.031	0.031	50	61	30	13	10
50	40	10	733 810 110	0.044	0.044	61	73	33	13	10
63	50	10	733 810 111	0.072	0.072	76	90	37	14	10
75	65	10	733 810 112	0.112	0.112	90	106	40	15	10
90	80	10	733 810 113	0.185	0.185	108	125	47	16	12
110	100	10	733 810 114	0.283	0.283	131	150	55	18	13

53 70 06



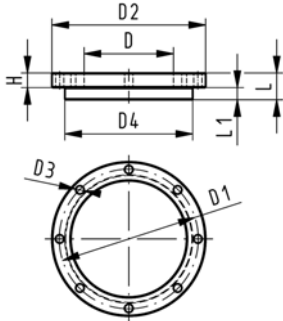
Blanking flange set PE Combined jointing face flat and serrated metric

Model:

- d63 - d315: Backing Flange PP-V with End Blank PE
- d355 - d630: Backing Flange PP/Steel with End Blank PE
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

L: length of the End Blank



d [mm]	DN [mm]	PN	Code Code	kg	kg/m
63	50	16	753 700 611	0.674	0.674
75	65	16	753 700 612	0.910	0.910
90	80	16	753 700 613	1.067	1.067
110	100	16	753 700 614	1.216	1.216
125	100	16	753 700 615	1.678	1.678
140	125	16	753 700 616	1.913	1.913
160	150	16	753 700 617	2.352	2.352
180	150	16	753 700 618	2.430	2.430
200	200	16	753 700 619	3.495	3.495
225	200	16	753 700 620	3.744	3.744
250	250	16	753 700 621	5.558	5.558
280	250	16	753 700 622	19.957	19.957
315	300	16	753 700 623	24.569	24.569
355	350	16	753 700 624	23.198	23.198
400	400	16	753 700 625	30.766	30.766
450	500	10	753 700 626	44.271	44.271
500	500	10	753 700 627	47.165	47.165
560	600	10	753 700 628	67.147	67.147
630	600	10	753 700 629	68.574	68.574

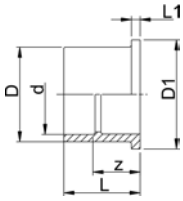
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	L [mm]	L1 [mm]	AL
63	75	125	165	18	102	24	30	14	4
75	89	145	185	18	122	26	30	16	4
90	105	160	200	18	138	27	30	17	8
110	125	180	220	18	158	28	30	18	8
125	132	180	220	18	158	28	35	25	8
140	155	210	250	18	188	30	40	25	8
160	175	240	285	22	212	32	40	25	8
180	180	240	285	22	212	32	45	30	8
200	232	295	340	22	268	34	50	32	8
225	235	295	340	22	268	34	50	32	8
250	285	350	395	22	320	38	55	35	12
280	291	350	395	22	320	38	60	35	12
315	335	400	445	22	370	42	65	35	12
355	373	460	515	22	430	40	70	40	16
400	427	515	574	26	482	40	75	46	16
450	510	620	684	26	585	49	80	60	20
500	530	620	684	26	585	49	90	60	20
560	615	725	796	30	685	58	100	60	20
630	642	725	796	30	685	68	110	60	20



Outlet flange adaptor PE80 Jointing face flat

Model:

- With fusion socket metric
- Suitable for wafer check valves Type 369
- To be installed on the outlet side of the valve
- Use flanges PP-V 27 70 04



d [mm]	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
40	32	6	733 800 009	0.060	0.060	50	78	55	11	35
50	40	6	733 800 010	0.080	0.080	61	88	61	12	38
63	50	6	733 800 011	0.130	0.130	76	102	69	14	41
75	65	6	733 800 012	0.160	0.160	90	122	79	16	49
90	80	6	733 800 013	0.270	0.270	107	138	100	17	65
110	100	6	733 800 014	0.480	0.480	130	158	105	18	62

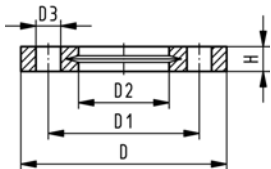
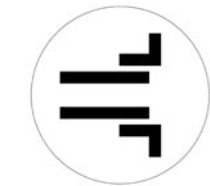
27 70 04
27 70 05

Backing Flanges, PP-V For socket systems metric

Model:

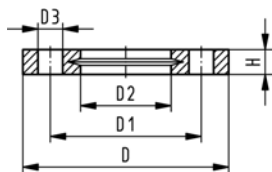
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12
25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12
32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12
40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16
50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16
63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16
75		65	16	727 700 412	0.480	185	145	92	18	26	4	M16
90		80	16	727 700 413	0.520	200	160	110	18	27	8	M16
110		100	16	727 700 414	0.680	220	180	133	18	28	8	M16

27 70 14
27 70 15



Backing Flanges, PP-V For socket systems Inch/ANSI

Model:

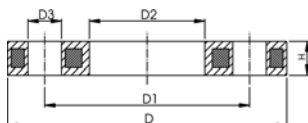
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes

Inch	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.080	0.080	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.100	0.100	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.140	0.140	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.220	0.220	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.210	0.210	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.380	0.380	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.480	0.480	185	140	92	19	26	4	M16
3	80	16	727 701 413	0.520	0.520	200	152	110	19	27	4	M16
4	100	16	727 701 414	0.680	0.680	229	190	133	19	28	8	M16

27 70 02



Backing flange PP-Steel For socket systems metric

Model:

- PP-GF (30% glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

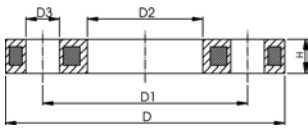
¹ Connecting dimension: ISO 2536, bolt circle acc. DN125, suitable for flange adaptor d125/DN100

² Connecting dimension: ISO 2536, bolt circle acc. DN225, suitable for flange adaptor d250/DN250

AL: number of holes

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	0.220	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.260	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.430	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.650	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.820	150	110	62	18	20	4	M16
63	50	16	727 700 211	0.940	165	125	78	18	20	4	M16
75	65	16	727 700 212	1.300	185	145	92	18	20	4	M16
90	80	16	727 700 213	1.400	200	160	110	18	20	8	M16
110	100	16	727 700 214	1.560	220	180	133	18	20	8	M16

27 70 12



Backing Flanges, PP/Steel For socket systems Inch/ANSI

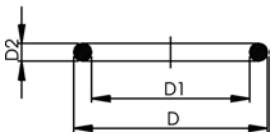
Model:

- For Flange Adaptors BS/ANSI
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**
- DN100 and DN150: only for use with original metric flange adaptors

AL: number of holes

DN [mm]	d [mm]	PN	Code	kg	kg/m	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL
15	20	16	727 701 206	0.210	0.210	60	28	16	95	12	4
20	25	16	727 701 207	0.250	0.250	70	34	16	105	12	4
25	32	16	727 701 208	0.420	0.420	79	42	16	115	16	4
32	40	16	727 701 209	0.670	0.670	89	51	16	140	16	4
40	50	16	727 701 210	0.860	0.860	98	62	16	150	18	4
50	63	16	727 701 211	0.930	0.930	121	78	19	165	18	4
65	75	16	727 701 212	1.340	1.340	140	92	19	185	18	4
80	90	16	727 701 213	1.550	1.550	152	110	19	200	20	4
100	110	16	727 701 214	1.810	1.810	190	133	19	229	20	8

EPDM 48 41 00
FPM 49 41 00



O-Ring Gaskets

Model:

- For Flange Adaptors
- Hardness approx. 65° Shore

d [mm]	DN [mm]	EPDM Code	FPM Code	kg	kg/m	D [mm]	D1 [mm]	D2 [mm]
20	15	748 410 001	749 410 001	0.002	0.002	31	23	3.53
25	20	748 410 007	749 410 007	0.002	0.002	35	28	3.53
32	25	748 410 002	749 410 002	0.003	0.003	43	36	3.53
40	32	748 410 003	749 410 003	0.007	0.007	55	44	5.34
50	40	748 410 012	749 410 012	0.008	0.008	64	53	5.34
63	50	748 410 013	749 410 013	0.011	0.011	80	69	5.34
75	65	748 410 014	749 410 014	0.012	0.012	93	82	5.34
90	80	748 410 015	749 410 015	0.015	0.015	112	101	5.34
110	100	748 410 016	749 410 016	0.031	0.031	134	120	6.99

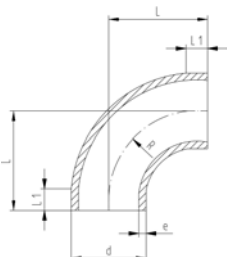
Fittings for Butt Fusion

53 01 87

Bend 90° PE100 SDR11

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

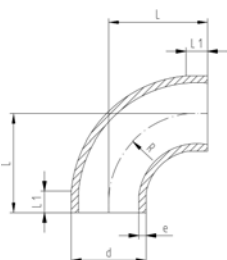


d [mm]	FM	Code	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
20	IR	753 018 706	0.007	38	23	15	1.9
25	IR	753 018 707	0.012	42	23	19	2.3
32	IR	753 018 708	0.022	46	22	24	2.9
40	IR	753 018 709	0.038	51	21	30	3.7
50	IR	753 018 710	0.066	58	21	37	4.6
63	IR	753 018 711	0.118	66	21	45	5.8
75	IR	753 018 712	0.241	100	20	90	6.8
90	IR	753 018 713	0.358	100	20	90	8.2
110	IR	753 018 714	0.755	141	25	130	10.0
125	IR	753 018 690	0.850	140	15	125	11.4
140	IR	753 018 691	1.180	155	15	140	12.7
160	IR	753 018 692	1.750	175	15	160	14.6
180	IR	753 018 693	2.670	195	15	180	16.4
200	IR	753 018 694	3.440	215	15	200	18.2
225	IR	753 018 695	4.790	245	20	225	20.5
250	--	753 018 621	6.800	256	48	232	22.7
280	--	753 018 622	9.900	286	48	262	25.4
315	--	753 018 623	13.500	321	48	297	28.6
355	--	753 021 024	17.200	380	38	355	32.3
400	--	753 021 025	23.000	434	41	400	36.3
450	--	753 021 026	38.300	445	49	450	40.9
500	--	753 021 027	47.300	450	49	500	45.5

Bend 90° PE100 SDR17/17.6

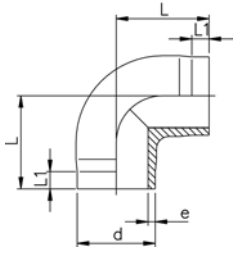
Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100



d [mm]	FM	Code	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
50	--	753 018 635	0.052	58	21	37	2.9
63	--	753 018 636	0.084	66	21	45	3.6
75	--	753 018 737	0.172	100	20	90	4.3
90	--	753 018 738	0.243	100	20	90	5.1
110	IR	753 018 739	0.522	141	20	130	6.3
125	IR	753 018 590	0.590	140	15	125	7.1
140	IR	753 018 591	1.180	155	15	140	8.0
160	IR	753 018 592	1.750	175	15	160	9.1
180	IR	753 018 593	2.670	195	15	180	10.2
200	IR	753 018 594	3.440	215	15	200	11.4
225	IR	753 018 595	4.790	245	15	225	12.8
250	--	753 018 521	4.700	256	48	232	14.2
280	--	753 018 522	6.500	286	48	262	15.9
315	--	753 018 523	9.200	321	48	297	17.9
355	--	753 020 824	11.300	340	38	355	21.1
400	--	753 020 825	15.700	345	41	400	23.7
450	--	753 020 826	24.900	449	49	450	25.8
500	--	753 020 827	30.600	449	49	500	32.0

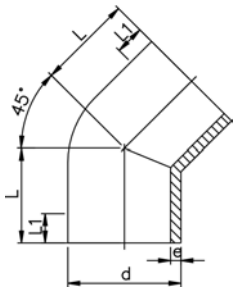
53 10 86

Elbow 90° PE100 SDR11**Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	753 108 606	0.009	38	25	1,9
25	IR	753 108 607	0.014	42	26	2,3
32	IR	753 108 608	0.025	46	27	2,9
40	IR	753 108 609	0.049	51	22	3,7
50	IR	753 108 610	0.087	58	23	4,6
63	IR	753 108 611	0.152	66	21	5,8

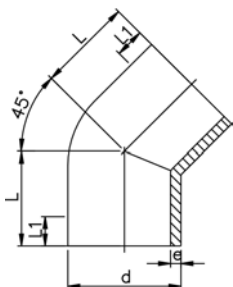
53 15 86

Elbow 45° PE100 SDR11**Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	753 158 606	0.008	32	24	1,9
25	IR	753 158 607	0.013	34	25	2,3
32	IR	753 158 608	0.021	36	25	2,9
40	IR	753 158 609	0.037	39	25	3,7
50	IR	753 158 610	0.059	42	26	4,6
63	IR	753 158 611	0.104	47	29	5,8
75	IR	753 158 612	0.147	49	29	6,8
90	IR	753 158 613	0.243	57	34	8,2
110	IR	753 158 614	0.445	70	43	10,0
125	IR	753 158 615	0.653	79	48	11,4
140	IR	753 158 616	0.905	88	55	12,7
160	IR	753 158 617	1.344	100	60	14,6
200	IR	753 158 619	2.625	124	75	18,2
225	IR	753 158 620	3.738	140	85	20,5

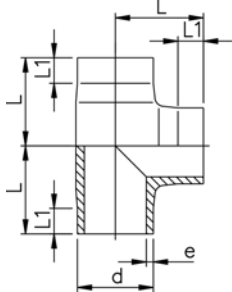
53 15 85

Elbow 45° PE100 SDR17.6**Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
50	--	753 158 535	0.045	42	26	2,9
63	--	753 158 536	0.091	47	29	3,6
75	--	753 158 537	0.128	49	29	4,3
90	--	753 158 538	0.208	57	34	5,1
110	IR	753 158 539	0.398	70	43	6,3
125	IR	753 158 540	0.570	79	48	7,1
140	IR	753 158 541	0.825	88	55	8,0
160	IR	753 158 542	1.190	100	60	9,1
200	IR	753 158 544	2.300	124	75	11,4
225	IR	753 158 545	3.200	140	85	12,8

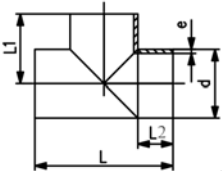
53 20 86

Tee 90° equal PE100 SDR11**Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	IR	753 208 606	0.013	38	24	1,9
25	IR	753 208 607	0.021	42	26	2,3
32	IR	753 208 608	0.042	46	26	2,9
40	IR	753 208 609	0.067	51	22	3,7
50	IR	753 208 610	0.114	58	22	4,6
63	IR	753 208 611	0.203	66	21	5,8
75	IR	753 208 612	0.310	75	20	6,8
90	IR	753 208 613	0.564	90	20	8,2
110	IR	753 208 614	1.020	110	20	10,0
125	IR	753 208 615	1.514	125	25	11,4
140	IR	753 208 616	2.111	140	28	12,7
160	IR	753 208 617	3.095	160	28	14,6
180	IR	753 208 668	4.560	190	70	16,4
200	IR	753 208 619	6.037	200	35	18,2
225	IR	753 208 620	8.090	220	35	20,5
250	--	753 208 671	12.208	272	90	22,7
280	--	753 208 672	17.831	313	108	25,4
315	--	753 208 673	25.742	348	114	28,6
355	--	753 221 024	30.500	352	97	32,3
400	--	753 221 025	39.000	337	100	36,4
450	--	753 221 026	45.000	450	130	40,9
500	--	753 221 027	75.500	450	130	45,5

53 20 86

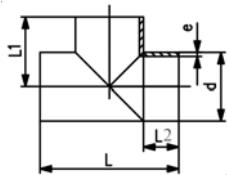
Tee 90° equal PE100 SDR11**Model:**

- Conventional butt-welding according to DVS 2207 part 1
- Machined
- 10 bar Gas / 16 bar Water

* on request

d [mm]	Code	kg	L [mm]	L1 [mm]	z [mm]	e [mm]
560	753 211 028		780	500	80	50.8
630	753 211 029		850	540	80	57.2
710	753 211 030	177.442	950	650	75	64.5
* 800	753 211 031	233.384	1013	700	75	72.6

53 20 85



Tee 90° equal PE100 SDR17/17.6

Model:

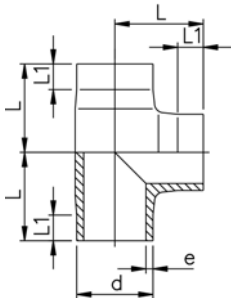
- Conventional butt-welding according to DVS 2207 part 1
- Machined
- 5 bar Gas / 10 bar Water

* on request



d [mm]	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	
560	753 220 831		780	500	80	33.2	
630	753 208 832		850	540	80	37.4	
710	753 220 833	121.141	950	650	75	42.1	
* 800	753 220 834	158.977	1013	700	75	47.4	

53 20 85



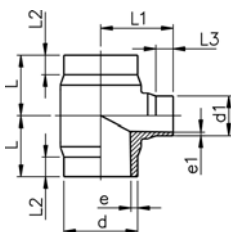
Tee 90° equal PE100 SDR17/17.6

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
50	--	753 208 535	0.090	59	26	2,9	
63	--	753 208 536	0.160	71	25	3,6	
75	--	753 208 412	0.245	74	20	4,8	
90	--	753 208 413	0.418	90	20	5,6	
110	IR	753 208 414	0.757	110	20	6,9	
125	IR	753 208 540	1.066	124	27	7,1	
140	IR	753 208 541	1.449	141	33	8,0	
160	IR	753 208 542	2.240	160	40	9,1	
180	IR	753 208 543	3.176	190	70	10,2	
200	IR	753 208 544	4.360	210	70	11,4	
225	IR	753 208 545	6.030	238	80	12,8	
250	--	753 208 546	8.610	272	90	14,2	
280	--	753 208 547	11.660	313	108	15,9	
315	--	753 208 548	16.230	348	114	17,9	
355	--	753 220 824	22.750	330	95	21,1	
400	--	753 220 825	30.500	345	104	23,7	
450	--	753 220 826	45.000	450	130	26,7	
500	--	753 220 827	52.600	445	130	29,7	

53 20 83



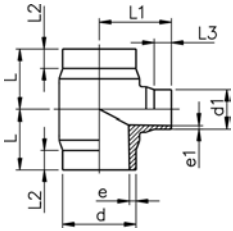
Tee 90° reduced PE100 SDR11

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]	
63	32	IR	753 208 351	0.170	65	70	25	25	5,8	2,9	
63	50	IR	753 208 352	0.180	65	70	25	25	5,8	4,6	
75	32	IR	753 208 353	0.250	70	75	25	25	6,8	2,9	
75	50	IR	753 208 354	0.263	70	75	25	25	6,8	4,6	
75	63	IR	753 208 355	0.278	70	75	25	25	6,8	5,8	
90	50	IR	753 208 357	0.445	80	85	25	25	8,2	4,6	
90	63	IR	753 208 358	0.455	80	85	25	25	8,2	5,8	
90	75	IR	753 208 359	0.470	80	85	25	25	8,2	6,8	
110	32	IR	753 208 360	0.705	90	95	30	25	10,0	2,9	
110	50	IR	753 208 361	0.700	90	95	30	25	10,0	4,6	
110	63	IR	753 208 362	0.710	90	95	30	25	10,0	5,8	
110	75	IR	753 208 363	0.723	90	95	30	25	10,0	6,8	
110	90	IR	753 208 364	0.735	90	95	30	25	10,0	8,2	
160	63	IR	753 208 371	2.270	142	135	50	30	14,6	5,8	
160	75	IR	753 208 372	2.295	142	135	50	30	14,6	6,8	
160	90	IR	753 208 373	2.315	142	135	50	30	14,6	8,2	
160	110	IR	753 208 374	2.355	142	135	50	30	14,6	10,0	
225	90	IR	753 208 388	4.760	155	165	40	30	20,5	8,2	

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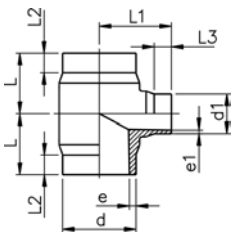
d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
225	110	IR	753 208 389	4.720	155	165	40	30	20,5	10,0
225	160	IR	753 208 391	4.780	155	165	40	30	20,5	14,6
250	110	--	753 221 031	8.120	228	197	140	37	22,7	10,0
250	160	--	753 221 032	8.620	229	219	117	60	22,7	14,6

Tee 90° reduced PE100 SDR17.6

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- 5 bar Gas / 10 bar Water

* Branch SDR11



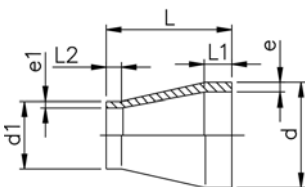
d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]
* 63	32	--	753 208 301	0.157	65	70	25	25	3,6	2,9
63	50	--	753 208 302	0.158	65	70	25	25	3,6	2,9
* 75	32	--	753 208 303	0.240	70	75	25	25	4,3	2,9
75	50	--	753 208 304	0.250	70	75	25	25	4,3	2,9
75	63	--	753 208 305	0.257	70	75	25	25	4,3	3,6
90	50	--	753 208 307	0.410	80	85	25	25	5,1	2,9
90	63	--	753 208 308	0.330	80	85	25	25	5,1	3,6
90	75	--	753 208 309	0.340	80	85	25	25	5,1	4,3
* 110	32	IR	753 208 310	0.640	90	95	30	25	6,3	2,9
110	50	IR	753 208 311	0.650	90	95	30	25	6,3	2,9
110	63	IR	753 208 312	0.520	90	95	30	25	6,3	3,6
110	75	IR	753 208 313	0.524	90	95	30	25	6,3	4,3
110	90	IR	753 208 314	0.530	90	95	30	25	6,3	5,1
160	63	IR	753 208 321	2.150	142	135	50	30	9,1	3,6
160	75	IR	753 208 322	2.130	142	135	50	30	9,1	4,3
160	90	IR	753 208 323	1.590	142	135	50	30	9,1	5,1
160	110	IR	753 208 324	1.695	142	135	50	30	9,1	6,3
225	90	IR	753 208 338	3.430	155	165	40	30	12,8	5,1
225	110	IR	753 208 339	3.410	155	165	40	30	12,8	6,3
225	160	IR	753 208 341	3.440	155	165	40	30	12,8	9,1
250	160	--	753 220 832	6.500	228	219	117	60	14,8	9,5

53 90 88

Reducer PE100 SDR11

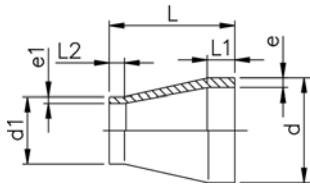
Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Up to d 315 injection moulded, above machined



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
25	20	IR	753 908 637	0.007	50	20	18	2,3	1,9
32	20	IR	753 908 642	0.010	50	20	18	2,9	1,9
32	25	IR	753 908 641	0.011	50	20	18	2,9	2,3
40	20	IR	753 908 648	0.016	58	20	20	3,7	1,9
40	25	IR	753 908 647	0.017	55	20	18	3,7	2,3
40	32	IR	753 908 646	0.019	55	20	18	3,7	2,9
50	25	IR	753 908 654	0.025	60	20	18	4,6	2,3
50	32	IR	753 908 653	0.028	60	20	18	4,6	2,9
50	40	IR	753 908 652	0.032	60	20	18	4,6	3,7
63	32	IR	753 908 660	0.046	65	20	18	5,8	2,9
63	40	IR	753 908 659	0.051	65	20	18	5,8	3,7
63	50	IR	753 908 658	0.056	65	20	18	5,8	4,6
75	40	IR	753 908 666	0.070	68	20	20	6,8	3,7
75	50	IR	753 908 665	0.074	65	20	18	6,8	4,6
75	63	IR	753 908 664	0.083	65	20	18	6,8	5,8
90	63	IR	753 908 671	0.127	75	21	17	8,2	5,8
90	75	IR	753 908 670	0.132	75	22	17	8,2	6,8
110	75	IR	753 908 677	0.226	90	28	17	10,0	6,8
110	90	IR	753 908 676	0.239	90	28	20	10,0	8,2

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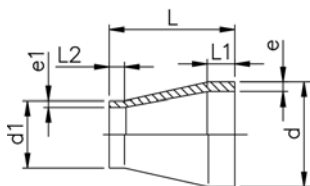


d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
125	110	IR	753 908 680	0.345	100	32	26	11,4	10,0
140	110	IR	753 908 685	0.436	110	35	28	12,7	10,0
140	125	IR	753 908 684	0.478	110	35	28	12,7	11,4
160	110	IR	753 908 690	0.608	120	40	25	14,6	10,0
160	140	IR	753 908 688	0.671	120	40	33	14,6	12,7
180	90	IR	753 908 877	0.678	157	45	22	16,4	8,2
180	110	IR	753 908 878	0.556	157	45	28	16,4	10,0
180	125	IR	753 908 879	0.528	136	45	32	16,4	11,4
180	140	IR	753 908 880	0.524	136	45	35	16,4	12,7
180	160	IR	753 908 881	0.537	136	45	40	16,4	14,6
200	160	IR	753 908 692	1.266	150	50	35	18,2	14,6
200	180	IR	753 908 883	0.715	151	50	45	18,2	16,4
225	110	IR	753 908 695	1.447	171	55	45	20,5	10,0
225	160	IR	753 908 696	1.546	160	55	37	20,5	14,6
225	180	IR	753 908 885	1.970	171	55	45	20,5	16,4
225	200	IR	753 908 697	1.737	160	55	48	20,5	18,2
250	160	--	753 908 890	2.314	194	60	40	22,7	14,6
250	180	--	753 900 001	2.450	175	60	55	22,7	16,4
250	200	--	753 900 002	2.450	180	60	60	22,7	18,2
250	225	--	753 908 887	2.595	182	60	55	22,7	20,5
280	200	--	753 900 004	3.540	205	70	50	25,4	18,2
280	225	--	753 908 892	1.908	105	30	20	25,4	20,5
280	250	--	753 908 891	1.390	70	30	18	25,4	22,7
315	200	--	753 900 007	4.740	225	80	50	28,6	20,5
315	225	--	753 908 897	2.797	130	30	30	28,6	20,5
315	250	--	753 908 896	2.370	100	30	20	28,6	22,7
315	280	--	753 908 895	1.590	63	30	18	28,6	25,4
355	225	--	753 900 011	4.700	245	90	55	32,3	20,5
355	250	--	753 900 012	4.400	245	90	60	32,3	22,7
355	280	--	753 900 013	4.100	245	90	70	32,3	25,4
355	315	--	753 900 014	3.700	245	90	80	32,3	28,6
400	225	--	753 900 015	6.800	260	95	60	36,4	20,5
400	250	--	753 900 016	6.800	260	95	70	36,4	22,7
400	280	--	753 900 017	6.200	260	95	70	36,4	25,4
400	315	--	753 900 018	5.300	260	95	80	36,4	28,6
400	355	--	753 900 019	4.800	260	95	90	36,4	32,3
450	280	--	753 900 020	9.000	230	60	70	40,9	25,4
450	315	--	753 900 021	8.000	230	60	80	40,9	28,6
450	355	--	753 900 022	7.400	230	60	90	40,9	32,3
450	400	--	753 900 023	6.600	230	60	95	40,9	36,4
500	315	--	753 900 024	12.000	230	60	80	45,5	28,6
500	355	--	753 900 025	10.800	230	60	90	45,5	32,3
500	400	--	753 900 026	10.000	230	60	95	45,5	36,4
500	450	--	753 900 027	8.300	200	60	60	45,5	40,9
710	500	--	753 900 035	24.157	190	84	40	64,5	45,4
710	560	--	753 900 036	21.770	170	81	40	64,5	50,8
710	630	--	753 900 037	17.845	140	71	40	64,5	57,2

Reducer PE100 SDR17/17.6

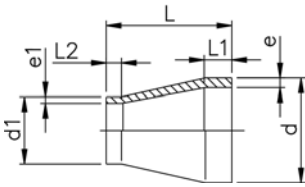
Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Up to d 315 injection moulded, above machined

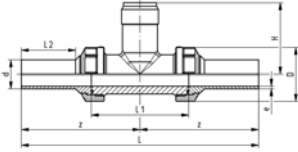


d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
50	40	--	753 908 926	0.010	55	12	12	2,9	2,3
63	40	--	753 908 927	0.020	65	16	12	3,6	2,3
63	50	--	753 908 928	0.020	65	16	12	3,6	2,9
75	40	--	753 908 904	0.041	71	19	12	4,3	2,3
75	50	--	753 908 465	0.049	65	20	20	4,8	3,2
75	63	--	753 908 464	0.056	65	20	20	4,8	4,0
90	63	--	753 908 471	0.083	75	20	19	5,7	4,0
90	75	--	753 908 470	0.092	75	20	20	5,7	4,8
110	75	--	753 908 477	0.149	89	28	18	6,9	4,8

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d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
110	90	--	753 908 476	0.165	90	28	20	6,9	5,7
125	110	IR	753 908 912	0.151	108	32	28	7,1	6,3
140	110	IR	753 908 917	0.144	115	35	28	8,0	6,3
140	125	IR	753 908 916	0.150	115	35	32	8,0	7,1
160	110	IR	753 908 922	0.287	124	40	28	9,1	6,3
160	140	IR	753 908 920	0.245	124	40	35	9,1	8,0
180	90	IR	753 908 975	0.445	157	45	22	10,2	5,1
180	110	IR	753 908 976	0.367	157	45	28	10,2	6,3
180	125	IR	753 908 977	0.347	136	45	32	10,2	7,1
180	140	IR	753 908 978	0.344	136	45	35	10,2	8,0
180	160	IR	753 908 979	0.351	136	45	40	10,2	9,1
200	160	IR	753 908 931	0.835	151	50	40	11,4	9,1
200	180	IR	753 908 981	0.467	151	50	45	11,4	10,2
225	110	IR	753 908 938	1.295	160	55	35	12,8	6,3
225	160	IR	753 908 933	0.620	171	55	40	12,8	9,1
225	180	IR	753 908 985	0.601	171	55	45	12,8	10,2
225	200	IR	753 908 932	0.614	171	55	50	12,8	11,4
250	160	--	753 908 939	0.975	194	60	40	14,2	9,1
250	180	--	753 902 801	1.690	175	60	55	14,8	10,7
250	200	--	753 902 802	1.820	180	60	60	14,8	11,9
250	225	--	753 908 937	0.681	182	60	55	14,2	12,8
280	200	--	753 902 804	2.440	205	70	50	16,6	11,9
280	225	--	753 908 944	1.180	105	30	20	15,9	12,8
280	250	--	753 908 943	0.858	70	30	18	15,9	14,2
315	200	--	753 902 807	3.360	225	80	50	18,7	11,9
315	225	--	753 908 950	1.715	130	30	20	17,9	12,8
315	250	--	753 908 949	1.446	100	30	20	17,9	14,2
315	280	--	753 908 999	1.047	63	30	18	17,9	15,9
355	225	--	753 902 811	4.700	245	90	55	21,1	13,4
355	250	--	753 902 812	9.425	245	90	60	21,1	14,8
355	280	--	753 902 813	4.100	245	90	70	21,1	16,6
355	315	--	753 902 814	3.700	245	90	80	21,1	18,7
400	225	--	753 902 815	4.600	260	95	60	23,7	13,4
400	250	--	753 902 816	4.400	260	95	70	23,7	14,8
400	280	--	753 902 817	4.400	260	95	70	23,7	16,6
400	315	--	753 902 818	3.520	260	95	80	23,7	18,7
400	355	--	753 902 819	3.320	260	95	90	23,7	21,1
450	280	--	753 902 820	6.340	230	60	70	26,7	16,6
450	315	--	753 902 821	5.400	230	60	80	26,7	18,7
450	355	--	753 902 822	5.000	230	60	90	26,7	21,1
450	400	--	753 902 823	4.400	230	60	95	26,7	23,7
500	315	--	753 902 824	8.100	230	60	80	29,7	18,7
500	355	--	753 902 825	7.300	230	60	90	29,7	21,1
500	400	--	753 902 826	7.080	230	60	95	29,7	23,7
500	450	--	753 902 827	5.500	200	60	60	29,7	26,7
560	400	--	753 902 828	9.900	230	60	95	33,2	23,7
560	450	--	753 902 829	8.600	200	60	60	33,2	26,7
560	500	--	753 902 830	7.600	200	60	60	33,2	29,7
630	400	--	753 902 831	15.100	230	60	95	37,4	23,7
630	450	--	753 902 832	13.700	200	60	60	37,4	26,7
630	500	--	753 902 833	12.000	200	60	60	37,4	29,7
630	560	--	753 902 834	9.800	200	60	60	37,4	33,2
710	500	--	753 902 835	16.750	190	84	40	42,1	29,7
710	560	--	753 902 836	15.014	170	81	40	42,1	33,2
710	630	--	753 902 837	12.215	140	71	40	42,1	37,4
800	560	--	753 902 838	22.731	200	85	40	47,4	33,2
800	630	--	753 902 839	20.475	180	85	40	47,4	37,4
800	710	--	753 902 840	16.774	150	78	40	47,4	42,1
900	630	--	753 902 841	32.055	220	96	40	53,3	37,4
900	710	--	753 902 842	27.731	190	89	40	53,3	42,1
900	800	--	753 902 843	22.854	160	85	40	53,3	47,4
1000	710	--	753 902 844	40.412	220	91	40	59,3	42,1
1000	800	--	753 902 845	33.910	180	86	40	59,3	47,4
1000	900	--	753 902 846	25.824	140	75	40	59,3	53,3



Installation fitting type 318 PE100 SDR 11 For butt fusion systems metric

Model:

- Body and union nut PP-H
- Threaded outlet 1 1/4" NPSM
- Union end with butt fusion spigot PP-H

Range of use:

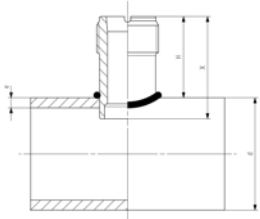
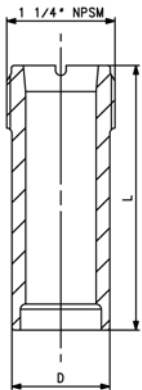
- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

- sensor length depends on installation fitting

d [mm]	DN [mm]	PN	FM	EPDM Code	FPM Code	kg
20	15	10	IR	753 318 006	753 318 036	0.136
25	20	10	IR	753 318 007	753 318 037	0.190
32	25	10	IR	753 318 008	753 318 038	0.250
40	32	10	IR	753 318 009	753 318 039	0.356
50	40	10	IR	753 318 010	753 318 040	0.510
63	50	10	IR	753 318 011	753 318 041	0.800

d [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	H [mm]	e [mm]	Sensor Type
20	48	112	224	90	52	76	1.9	flow X0, pH XX
25	58	121	242	100	53	78	2.3	flow X0, pH XX
32	65	128	256	110	55	81	2.9	flow X0, pH XX
40	79	136	272	110	60	85	3.7	flow X0, pH XX
50	91	147	294	120	66	89	4.6	flow X0, pH XX
63	105	158	316	130	70	95	5.8	flow X0, pH XX



Installation fitting type 314 PE100

Model:

- Material: PE100
- Threaded outlet 1 1/4" NPSM
- for conventional hot gas back welding according to DVS 2207 part 3

Range of use:

- compatible signet flow sensors: type 2551, 2537, 515, 8510, 2536, 8512
- compatible signet pH/ORP sensors: type 2724, 2725, 2726

Attention:

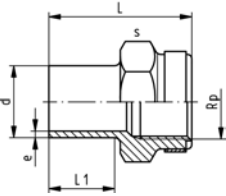
- only for pressureless or low pressure application
- pressure rate depends on quality of hot gas back welding
- please consult the instruction manual
- Installation by trained and certified welders only
- sensor length depends on installation fitting



d [mm]	DN	PN* [bar]	Code	kg	D [mm]	L [mm]	Sensor Type
75 - 180	65 - 150	-	753 314 000	0.037	37	68	flow X0, pH XX
200 - 355	200 - 350	-	753 314 001	0.650	37	102	flow X1
400 - 630	350 - 600	-	753 314 002	9.341	37	178	flow X2

Adaptor Fittings for Butt Fusion

53 91 02



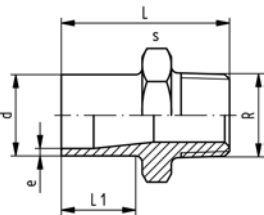
Adaptor socket PE100 SDR11 metric Rp

Model:

- With butt fusion spigot **SDR11** and BSP parallel female thread Rp, reinforced
- Reinforcing ring stainless (A2)
- Connection to plastic or metal threads
- Do not use thread sealing pastes that are harmful to PE
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	DN [mm]	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	¾	15	IR	753 910 266	0.018	48	23	32	1,9
25	¾	20	IR	753 910 267	0.022	50	23	36	2,3
32	1	25	IR	753 910 268	0.039	54	23	46	2,9
40	1 ¼	32	IR	753 910 269	0.068	56	23	55	3,7
50	1 ½	40	IR	753 910 270	0.087	60	23	65	4,6
63	2	50	IR	753 910 271	0.140	62	23	80	5,8

53 91 05



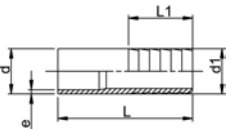
Adaptor nipple PE100 SDR11 metric R

Model:

- With butt fusion spigot SDR11 and tapered male thread
- Do not use thread sealing pastes that are harmful to PE
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	DN [mm]	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	¾	15	IR	753 910 556	0.014	51	23	32	1,9
25	¾	20	IR	753 910 557	0.026	52	23	36	2,3
32	1	25	IR	753 910 558	0.029	55	23	46	3,0
40	1 ¼	32	IR	753 910 559	0.043	58	23	55	3,7
50	1 ½	40	IR	753 910 560	0.064	60	23	65	4,6
63	2	50	IR	753 910 561	0.140	67	26	80	5,8

53 96 86



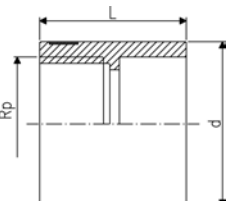
Hose connector PE100 SDR11 metric

Model:

- With butt fusion spigot **SDR11** and parallel hose connection

d [mm]	d1 [mm]	DN [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]
20	20	15	IR	753 968 606	0.008	64	27	1,9
25	25	20	IR	753 968 607	0.013	75	36	2,3
32	32	25	IR	753 968 608	0.021	82	36	2,9
40	40	32	IR	753 968 609	0.034	84	42	3,7
50	50	40	IR	753 968 610	0.056	90	48	4,6
63	60	50	IR	753 968 611	0.095	100	50	5,8

73 28 19



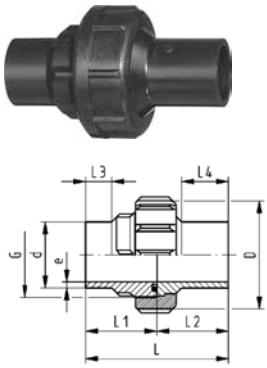
PE Adaptor Female thread

- **PE 80 SDR 11** (ISO S5)
- 5 bar Gas / 12,5 bar Water
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- For ELGEF Plus Branch Saddle (753 131 000) d63 - 400mm, pipe SDR 11, d75 - 400mm, pipe SDR 17
- Parallel female thread
- *PE 100 SDR 11 (ISO S5)

d [mm]	Rp [inch]	Code	kg	L [mm]
63	1 ½	173 281 925	0.096	54
* 63	½	193 281 617	0.060	68

Unions for butt fusion

Union PE100 S5/SDR11

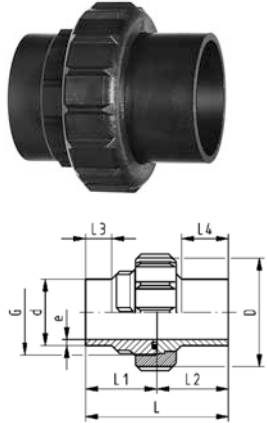


Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	FM	EPDM Code	FPM Code	kg
20	16	IR	753 518 606	753 528 606	0.042
25	16	IR	753 518 607	753 528 607	0.052
32	16	IR	753 518 608	753 528 608	0.083
40	16	IR	753 518 609	753 528 609	0.151
50	16	IR	753 518 610	753 528 610	0.196
63	16	IR	753 518 611	753 528 611	0.364
75	10	IR	753 518 612	753 528 612	0.520
90	10	IR	753 518 613	753 528 613	0.540
110	10	IR	753 518 614	753 528 614	0.760

d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	e [mm]
20	48	1	107	54.0	53.0	26	38	1,9
25	58	1 1/4	113	57.0	56.0	26	42	2,3
32	65	1 1/2	119	60.0	59.0	25	41	3,0
40	79	2	126	63.0	63.0	25	42	3,7
50	91	2 1/4	131	65.5	65.5	25	44	4,6
63	111	2 3/4	137	69.0	68.0	25	45	5,8
75	135	S107,5x3,6	132	66.0	65.5	24	34	6,8
90	135	S107,5x3,6	131	65.5	65.5	24	45	8,2
110	158	S127,5x3,6	131	65.5	65.5	25	40	10,0



Union PE100 S8.3/SDR17.6

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- **For the dimensions d75-110 please see instructions for the installation**

d [mm]	PN	FM	EPDM Code	FPM Code	kg
75	10	--	753 518 412	753 528 412	0.476
90	10	--	753 518 413	753 528 413	0.483
110	10	IR	753 518 414	753 528 414	0.663

d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
75	135	S107,5x3,6	132	66.0	66.0	4,3
90	135	S107,5x3,6	131	65.5	65.5	5,1
110	158	S127,5x3,6	131	65.5	65.5	6,3

Instructions for the installation of unions in PP, PE d 75, d 90 and d 110

The newest generation of plastic unions in the above materials and dimensions has been fitted with a state-of-the-art, plastics-oriented buttress thread. You therefore have a product in which the nominal pressure and the safety reserve have been dramatically increased. Also new are the butt fusion versions. In this connection, there are a few points which you must be aware of.

Caution

- ① The threads of the union nut and bush have been reworked for PP, PVDF and PE! When using individual parts, please check prior to installation if the threads of the union bush and the union nut coincide.



Union bush with trapezoid thread on union nut with trapezoid thread
or
Union bush with buttress thread on union nut with buttress thread

Tip

To make installation of the union easier, wet the union nut.

- ② For the dimensions d90 and d110 we advise fusing the complete union, if possible (or slide the union nut to the collar of the union end) because after fusion the union nut cannot be slid over the fusion bead. (Fig. 1)
- ③ For design reasons, it is theoretically possible to combine different nominal diameters of union ends and nuts. To make sure combinations are technically correct, you can find the code numbers of the single parts and spare parts for each union in the Tables 1-3.

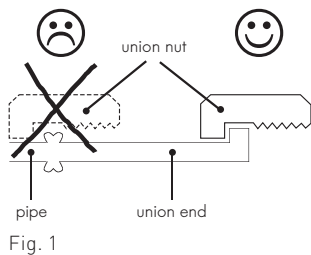


Fig. 1

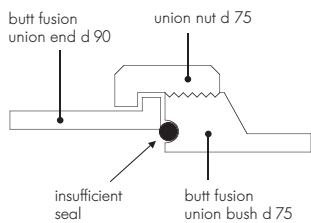


Fig. 2

Caution

Only use union bushes and union ends with the same nominal diameter!

A butt fusion union bush d75 may not be combined with a butt fusion union end d90 to form a reducer because this can cause leakage, as illustrated to the left. (Fig. 2)

Markings on the union nuts

SF/MS = socket fusion, BF/ST = butt fusion

SF/MS 75 specified for socket fusion d75
BF/ST 75-90 specified for butt fusion d75-75 and d90-90

SF/MS 90 specified socket fusion d90
BF/ST 110 specified butt fusion d110

110 specified for socket fusion d110

Tip

We recommend changing materials only for the union end for installation reasons.

Selection tables for single parts and spare parts



Butt fusion

Socket fusion

Table 1

Single parts for **PP-H** unions d75, d90 and d110

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75			11	10	727 608 512	727 648 512	727 690 422
			17.6	6	727 608 412	727 648 412	727 690 422
			—	10	727 600 112	727 640 172	727 690 422
90			11	10	727 608 513	727 648 513	727 690 422
			17.6	6	727 608 413	727 648 413	727 690 422
			—	10	727 600 113	727 640 173	727 690 423
110			11	10	727 608 514	727 648 514	727 690 423
			17.6	6	727 608 414	727 648 414	727 690 423
			—	10	727 600 114	727 640 174	727 690 424

Table 2

Single parts for **PE100** unions d75, d90 and d110

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75			11	10	753 608 612	753 648 612	727 690 442
			17.6	10	753 608 412	753 648 412	727 690 442
90			11	10	753 608 613	753 648 613	727 690 442
			17.6	10	753 608 413	753 648 413	727 690 442
110			11	10	753 608 614	753 648 614	727 690 443
			17.6	10	753 608 414	753 648 414	727 690 443

Table 3

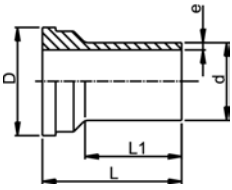
O-Rings for PP-H, PE100

d	BF/ST	SF/MS	SDR	PN	Code O-Ring EPDM ¹	Code O-Ring FPM ¹
75				16	748 410 013	749 410 013
				16	748 410 014	749 410 014
90				16	748 410 014	749 410 014
				16	748 410 015	749 410 015
110				16	748 410 015	749 410 015
				16	748 410 016	749 410 016

* Union nuts overlap several dimensions

¹ Flange adaptor O-rings, one size smaller in nominal dimensions, are used for the d75–110 butt-fusion unions

53 60 86

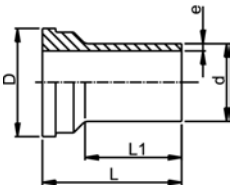


Union Ends, PE100 SDR11

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- For the dimensions d75-110 please see instructions for the installation

d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	16	IR	753 608 606	0.011	30	54	38	1,9
25	16	IR	753 608 607	0.018	39	57	42	2,3
32	16	IR	753 608 608	0.027	45	60	41	2,9
40	16	IR	753 608 609	0.045	57	63	42	3,7
50	16	IR	753 608 610	0.062	63	66	44	4,6
63	16	IR	753 608 611	0.100	78	69	45	5,8
75	10	IR	753 608 612	0.147	101	66	34	6,8
90	10	IR	753 608 613	0.156	101	66	45	8,2
110	10	IR	753 608 614	0.226	121	66	40	10,0

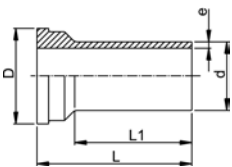


Union Ends, PE100 SDR17,6

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- For the dimensions d75-110 please see instructions for the installation

d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
75	10	-	753 608 412	0.125	101	66	34	4,3
90	10	-	753 608 413	0.128	101	66	45	5,1
110	10	IR	753 608 414	0.178	121	66	40	6,3



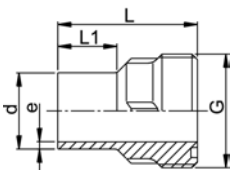
Union Ends long, PE100

Model:

- For butt-, IR Plus® and electrofusion
- Suitable for unions, tank connectors and diaphragm valves Type 514

d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]
20	16	IR	753 608 616	0.011	30	67	52	1,9
25	16	IR	753 608 617	0.019	39	71	53	2,3
32	16	IR	753 608 618	0.027	45	73	55	2,9
40	16	IR	753 608 619	0.045	57	81	60	3,7
50	16	IR	753 608 620	0.062	63	87	66	4,6
63	16	IR	753 608 621	0.119	78	93	70	5,8

53 64 86



Union Bushes, PE100 SDR11

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- For the dimensions d75-110 please see instructions for the installation

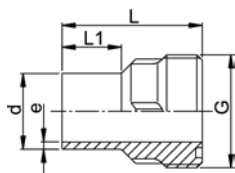
d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]
20	16	IR	753 648 606	0.016		1	54	1,9
25	16	IR	753 648 607	0.025		1 1/4	57	2,3
32	16	IR	753 648 608	0.035		1 1/2	60	2,9
40	16	IR	753 648 609	0.056		2	63	3,7
50	16	IR	753 648 610	0.078		2 1/4	66	4,6
63	16	IR	753 648 611	0.120		2 3/4	69	5,8
75	10	IR	753 648 612	0.183		S107,5x3,6	66	6,8
90	10	IR	753 648 613	0.195		S107,5x3,6	66	8,2
110	10	IR	753 648 614	0.275		S127,5x3,6	66	10



Union Bushes, PE100 SDR17,6

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared- (IR Plus®) compatible.
- For the dimensions d75-110 please see instructions for the installation



d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]
75	10	--	753 648 412	0.161	S107.5x3.6	66	24	4,3
90	10	--	753 648 413	0.164	S107.5x3.6	66	24	5,1
110	10	IR	753 648 414	0.221	S127.5x3.6	66	25	6,3

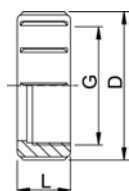
33 69 04

Union Nuts, PE-GF

Model:

- PE glass-fibre reinforced
- For the dimensions d75-110 please see instructions for the installation

* PP glass fibre reinforced



d-d [mm]	Code	kg	G [inch]	D [mm]	L [mm]
20 -	733 690 406	0.029	1	48	24
25 -	733 690 407	0.032	1 1/4	58	26
32 -	733 690 408	0.042	1 1/2	65	28
40 -	733 690 409	0.068	2	79	31
50 -	733 690 410	0.097	2 1/4	91	35
63 -	733 690 411	0.166	2 3/4	111	39
* 75 - 90	727 690 442	0.202	S107,5x3,6	135	40
* 90 - 110	727 690 443	0.289	S127,5x3,6	158	43

EPDM 48 41 00

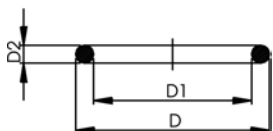
FPM 49 41 00

O-Ring Gaskets

Model:

- For unions and adaptor unions
- Hardness approx. 65° Shore
- EPDM minimum temperature -40°C
- FPM minimum temperature -15°C

* for unions PVC-U, PVC-C and ABS: 21 51 01, 21 51 11, 21 53 03, 21 53 08, 21 55 04, 21 55 13, 21 55 18, 23 51 01 and 29 51 01 only

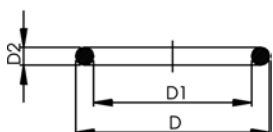


d [mm]	DN [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
20	15	748 410 006	749 410 006	0.002	27	20	3.53
25	20	748 410 007	749 410 007	0.002	35	28	3.53
32	25	748 410 008	749 410 008	0.002	40	33	3.53
40	32	748 410 009	749 410 009	0.006	51	41	5.34
50	40	748 410 010	749 410 010	0.007	58	47	5.34
63	50	748 410 011	749 410 011	0.010	70	60	5.34

O-Ring Gasket, FPM black

Model:

- for unions PP-H, PE100 and PVDF butt fusion
- d75 748 410 013 (EPDM), 749 410 013 (FPM)
- d90 748 410 014 (EPDM), 749 410 014 (FPM)
- d110 748 410 015 (EPDM), 749 410 015 (FPM)



EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]
748 410 013	749 410 013	0.011	80		
748 410 014	749 410 014	0.012	93		
748 410 015	749 410 015	0.015	112		

Flange Adaptors, Flanges and Gaskets for Butt Fusion

538000

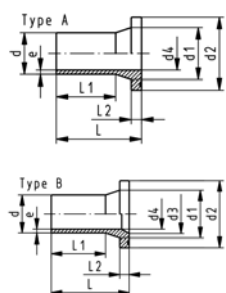


Flange adaptor PE100 S5/SDR11 Combined jointing face: flat and serrated

Model:

- Long spigot
- For butt-, IR Plus® and electrofusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d315, suitable for butterfly valve type 567,568 and 037
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Gasket d710-d1000: flat gasket EPDM No. 48 40 03
- 10 bar Gas / 16 bar Water

* Type B with chamfer



d [mm]	DN [mm]	FM	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	IR	753 800 006	0.022	27	45		16	85	41	7	1.9
25	20	IR	753 800 007	0.034	33	58		20	85	41	9	2.3
32	25	IR	753 800 008	0.051	40	68		26	85	44	10	3.0
40	32	IR	753 800 009	0.076	50	78		32	85	49	11	3.7
50	40	IR	753 800 010	0.107	61	88		40	104	55	12	4.6
63	50	IR	753 800 011	0.174	75	102		51	98	69	14	5.8
* 75	65	IR	753 800 012	0.300	89	122	66	61	125	89	16	6.8
* 90	80	IR	753 800 013	0.440	105	138	78	73	140	103	17	8.2
* 110	100	IR	753 800 014	0.685	125	158	100	90	160	114	18	10.0
* 125	100	IR	753 800 015	0.836	132	158	114	102	170	125	25	11.4
* 140	125	IR	753 800 016	1.295	155	188	127	114	200	147	25	12.7
* 160	150	IR	753 800 017	1.644	175	212	151	130	200	147	25	14.6
* 180	150	IR	753 800 018	1.873	180	212	158	147	200	170	30	16.4
* 200	200	IR	753 800 019	2.758	232	268	203	163	200	128	32	18.2
* 225	200	IR	753 800 020	2.972	235	268	210	184	200	138	32	20.5
* 250	250	--	753 800 021	4.535	285	320	245	204	219	138	35	22.7
* 280	250	--	753 800 022	4.925	291	320	265	229	231	144	35	25.4
* 315	300	--	753 800 023	6.393	335	370	300	257	239	158	35	28.6
* 355	350	--	753 800 024	10.400	373	430	340	290	260	176	40	32.3
* 400	400	--	753 800 025	14.600	427	482	385	327	290	186	46	36.3
* 450	500	--	753 800 026	24.800	514	585	400	368	333	195	60	40.9
* 500	500	--	753 800 027	27.400	530	585	440	409	350	212	60	45.5
* 560	600	--	753 800 028	38.000	615	685	490	458	365	230	60	50.9
* 630	600	--	753 800 029	42.300	642	685	545	515	385	250	60	57.3
710	700	--	753 800 030	56.379	737	800		581	400	280	60	64.5
800	800	--	753 800 033	72.636	840	905		652	400	280	65	74.0

53 80 00

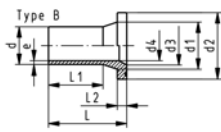
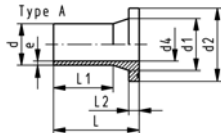
Flange adaptor LS PE100 SDR11 Combined jointing face: flat and serrated

Model:

- For butt-, IR Plus® and electrofusion
- Suitable for flange connections to **ANSI/ASME B 16.5**
- Suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 10 bar Gas / 16 bar Water

* Type B with chamfer

d [mm]	DN [mm]	FM	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
25	20	IR	753 800 057	0.031	33	54		20	85	41	9	2.3
32	25	IR	753 800 058	0.046	40	63		26	85	44	10	3.0
40	32	IR	753 800 059	0.070	50	73		32	85	49	11	3.7
50	40	IR	753 800 060	0.098	61	82		40	85	55	12	4.6
* 90	80	IR	753 800 063	0.423	105	133		73	140	85	17	8.2



538000
538001

Flange adaptor PE100 SDR17/17.6 Combined jointing face: flat and serrated

Model:

- Long spigot
- For butt-, IR Plus® and electrofusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d315, suitable for butterfly valve type 567, 568 and 037
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Gasket d710-d1000: flat gasket EPDM No. 48 40 03
- 5 bar Gas / 10 bar Water

* Type B with chamfer

d [mm]	DN [mm]	FM	Code	kg
50	40	--	753 800 085	0.110
63	50	--	753 800 086	0.143
75	65	--	753 800 087	0.246
90	80	--	753 800 088	0.351
110	100	IR	753 800 089	0.531
* 125	100	IR	753 800 090	0.629
* 140	125	IR	753 800 091	0.973
* 160	150	IR	753 800 092	1.257
180	150	IR	753 800 093	1.364
* 200	200	IR	753 800 094	2.212
* 225	200	IR	753 800 095	2.233
* 250	250	--	753 800 096	3.595
* 280	250	--	753 800 097	3.355
* 315	300	--	753 800 098	5.320
* 355	350	--	753 800 099	16.200
* 400	400	--	753 800 100	10.300
450	500	--	753 800 101	15.800
500	500	--	753 800 102	19.100
560	600	--	753 800 103	27.500
630	600	--	753 800 104	30.000
710	700	--	753 800 105	39.376
800	800	--	753 800 106	50.759
900	900	--	753 800 107	64.202
1000	1000	--	753 800 108	79.495

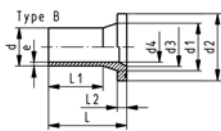
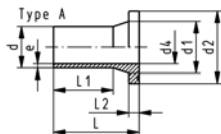
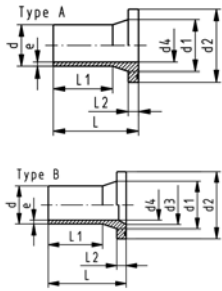


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d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
50	61	88		44	104	55	12	3.0
63	75	102		55	120	65	14	3.8
75	89	122		66	130	75	16	4.5
90	105	138		79	140	103	17	5.4
110	125	158		96	160	117	18	6.6
* 125	132	158	114	110	170	125	25	7.4
* 140	155	188	127	123	200	147	25	8.3
* 160	175	212	158	141	200	147	25	9.5
180	180	212		158	200	170	30	10.7
* 200	232	268	203	176	200	128	32	11.9
* 225	235	268	210	198	200	138	32	13.4
* 250	285	320	245	220	220	148	25	14.8
* 280	291	320	265	246	230	154	25	16.6
* 315	335	370	300	277	242	166	36	18.7
* 355	373	430	340	312	261	179	30	21.1
* 400	427	483	385	352	290	196	33	23.7
450	514	585		396	333	195	60	26.7
500	530	585		440	350	212	60	29.7
560	615	685		493	365	230	60	33.2
630	642	685		555	385	250	60	37.4
710	737	800		626	400	280	50	42.1
800	840	905		705	400	280	52	47.4
900	944	1005		793	400	260	55	53.3
1000	1047	1110		881	400	260	60	59.3

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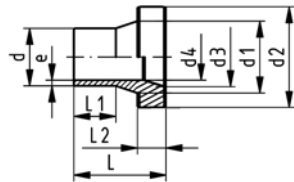
Adaptor for butterfly valves PE100 SDR11 Jointing face flat metric



Model:

- Conventional butt-welding according to DVS 2207 part 11
- Suitable for most common butterfly valves
- Chamfered and ready for use

Max pressure rating: 10 bar at 20°C water



d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
355	350	753 798 724	7.805	373	430	346	312	180	90	65	32.2
400	400	753 798 725	10.057	427	482	404	352	196	95	69	36.3
450	450	753 798 726	13.448	459	533	460	396	195	60	70	40.9
500	500	753 798 727	15.001	530	585	500	440	144	60	47	45.4
560	600	753 798 728	29.270	615	685	610	493	227	60	92	50.8
630	600	753 798 729	23.042	642	685	610	555	149	60	71	57.2
710	700	753 798 730	33.765	737	800	701	625	175	20	105	64.5
800	800	753 798 731	41.787	840	905	785	705	142	18	74	72.6

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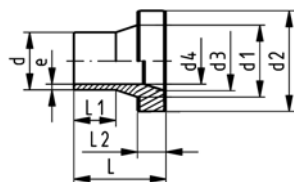
Adaptor for butterfly valves PE100 SDR17/17.6 Jointing face flat metric



Model:

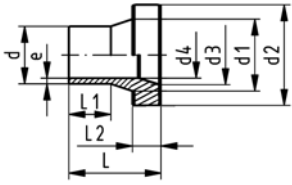
- Conventional butt-welding according to DVS 2207 part 1
- Suitable for most common butterfly valves
- Chamfered and ready for use

Max pressure rating: 10 bar at 20°C water



d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
355	350	753 798 749	6.479	373	430	346	312	180	90	65	21.1
400	400	753 798 750	8.426	427	482	404	352	196	95	69	23.7
450	450	753 798 751	9.570	459	533	460	396	195	60	90	26.7
500	500	753 798 752	8.263	530	585	500	440	144	60	47	29.7
560	600	753 798 753	17.307	615	685	610	493	227	60	92	33.2
630	600	753 798 754	12.122	642	685	610	555	149	60	71	37.4
710	700	753 798 755	21.505	737	800	701	625	175	20	105	42.1
800	800	753 798 756	21.841	840	905	785	705	142	18	74	47.4

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d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
900	900	753 798 757	34.187	947	1005	890	793	189	15	104	53.3
1000	1000	753 798 758	43.733	1047	1110	994	881	204	10	124	59.3
1200	1200	753 798 759	106.295	1256	1330	1860	1057	377	160	126	71.2

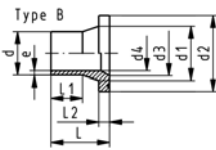
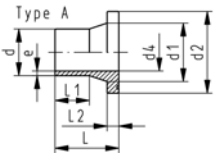
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Flange adaptor PE100 SDR11 Joining face combination serrated/flat metric

Model:

- Conventional butt-welding according to DVS 2207 part 1
- Up to d315, suitable for butterfly valve type 567,568 and 037
- For butterfly valves \geq DN350, please choose flange adaptor no. 53 79 88
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Gasket d710-d1000: flat gasket EPDM No. 48 40 03

* Type B with chamfer



d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
* 250	250	753 798 826	3.260	285	320	245	204	121	54	35	22,7
* 280	250	753 798 827	3.760	291	320	265	229	119	69	35	25,4
* 315	300	753 798 828	4.385	335	370	300	257	166	88	35	28,6
* 355	350	753 798 829	5.855	373	430	340	290	187	98	40	32,2
* 400	400	753 798 830	8.760	427	482	385	327	196	106	45	36,3
* 450	500	753 798 831	14.680	514	585	400	368	139	61	60	40,9
* 500	500	753 798 832	13.630	530	585	440	409	138	62	60	45,4
* 560	600	753 798 833	19.380	615	684	490	458	135	20	60	50,8
* 630	600	753 798 834	16.500	642	684	545	516	135	40	60	57,2
710	700	753 798 835	21.586	737	800		581	120	20	60	64,5
800	800	753 798 836	28.505	840	905		655	120	18	65	72,6

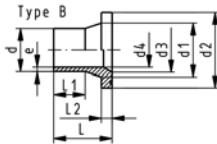
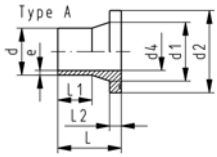
537988

Flange adaptor PE100 S8.3/SDR17.6 Jointing face combination serrated/flat metric

Model:

- Conventional butt-welding according to DVS 2207 part 1
- Up to d315, suitable for butterfly valve type 567,568 and 037
- For butterfly valves \geq DN350, please choose flange adaptor no. 53 79 88
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Gasket d710-d1000: flat gasket EPDM No. 48 40 03

* Type B with chamfer



d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
* 250	250	753 798 851	2.315	285	320	245	220	121	61	25	14,8
* 280	250	753 798 852	2.165	291	320	265	246	119	69	25	16,6
* 315	300	753 798 853	3.080	335	370	300	277	164	86	25	18,7
* 355	350	753 798 854	4.155	373	430	340	312	180	100	30	21,1
* 400	400	753 798 855	6.050	427	482	385	352	197	110	33	23,7
450	500	753 798 856	9.960	514	585		396	141	64	46	26,7
500	500	753 798 857	9.865	530	585		440	141	67	46	29,7
560	600	753 798 858	14.875	615	685		493	142	60	50	33,2
630	600	753 798 859	12.515	642	685		555	144	71	50	37,4
710	700	753 798 860	15.878	737	800		626	120	20	50	42,1
800	800	753 798 861	20.948	840	905		705	120	18	52	47,4
900	900	753 798 862	29.183	944	1005		793	140	15	55	53,3
1000	1000	753 798 863	36.209	1047	1110		881	140	10	60	59,3



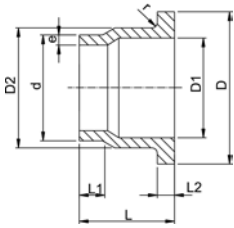
Outlet flange adaptor PE80 SDR11

Model:

- Conventional butt-welding according to DVS 2207 part 1
- Suitable for wafer check valves Type 369

Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.



d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]
40	32	733 808 034	0.064	80	37	50	64	30	11	3,7	3
50	40	733 808 035	0.088	90	43	61	67	30	12	4,6	3
63	50	733 808 036	0.126	105	54	76	74	30	14	5,8	4
75	65	733 808 037	0.187	125	70	90	78	30	16	6,8	4
90	80	733 808 038	0.346	140	82	108	87	35	17	8,2	4
110	100	733 808 039	0.500	160	105	131	102	41	18	10,0	4
140	125	733 808 041	0.710	190	130	165	124	47	25	12,7	4
160	150	733 808 042	0.910	215	158	188	149	52	25	14,6	4
225	200	733 808 045	1.830	270	206	248	180	55	32	20,5	4
280	250	733 808 047	3.550	325	259	308	240	63	35	25,4	4
315	300	733 808 048	4.960	375	308	346	272	66	35	28,6	4



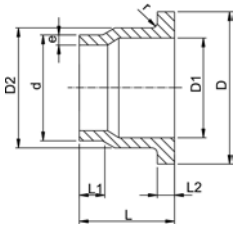
Outlet flange adaptor PE80 SDR17.6

Model:

- Conventional butt-welding according to DVS 2207 part 11
- Suitable for wafer check valves Type 369

Attention:

- In conjunction with outlet flange adaptors, **flange rings for socket systems** must be used.



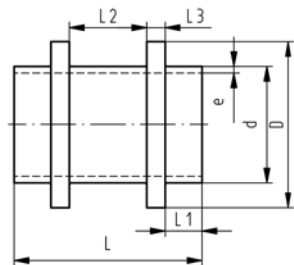
d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]
40	32	733 808 009	0.060	80	37	50	64	30	11	2,3	3
50	40	733 808 010	0.067	90	43	61	67	30	12	2,9	3
63	50	733 808 011	0.096	105	54	76	74	30	14	3,6	4
75	65	733 808 012	0.170	125	70	90	78	30	16	4,3	4
90	80	733 808 013	0.260	140	82	108	87	35	17	5,1	4
110	100	733 808 014	0.355	160	105	131	102	41	18	6,3	4
140	125	733 808 016	0.500	190	130	165	124	47	18	8,0	4
160	150	733 808 017	0.630	215	158	188	149	52	18	9,1	4
225	200	733 808 020	1.225	270	206	248	180	55	24	12,8	4
280	250	733 808 022	2.230	325	259	308	240	63	25	15,9	4
315	300	733 808 023	2.450	375	308	346	272	66	25	17,9	4



Fixpoint fitting PE100 S5/SDR11

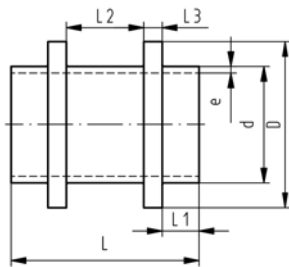
Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Machined

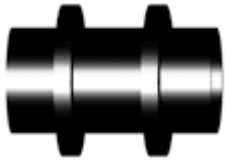


d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]
63	IR	753 665 558	0.182	90	122	30	42	10	5.8
75	IR	753 665 559	0.265	110	122	30	42	10	6.8
90	IR	753 665 560	0.357	125	122	30	42	10	8.2
110	IR	753 665 561	0.592	140	142	30	52	15	10.0
125	IR	753 665 562	0.811	160	152	35	52	15	11.4
140	IR	753 665 563	1.068	180	162	40	52	15	12.7
160	IR	753 665 564	1.349	200	162	40	52	15	14.6
180	IR	753 665 565	2.001	225	182	45	52	20	16.4
200	IR	753 665 566	2.469	250	182	45	52	20	18.2
225	IR	753 665 567	3.438	280	192	45	52	25	20.5
250	--	753 665 568	3.858	280	212	50	62	25	22.7
280	--	753 665 569	5.217	315	222	50	62	30	25.4
315	--	753 665 570	6.627	355	222	50	62	30	28.6

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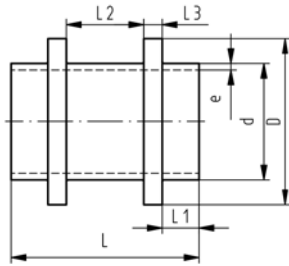
d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]
355	--	753 665 571	7.731	400	192	30	62	35	32.2
400	--	753 665 572	10.890	450	212	30	72	40	36.3
450	--	753 665 573	14.775	500	232	35	72	45	40.9
500	--	753 665 574	20.268	560	252	40	72	50	45.4
560	--	753 665 575	28.608	630	282	45	82	55	50.8
630	--	753 665 576	39.129	710	302	50	82	60	57.2



Fixpoint fitting PE100 SDR17/17.6

Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Machined



d [mm]	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]
63	--	753 665 577	0.144	90	122	30	42	10	3.8
75	--	753 665 578	0.212	110	122	30	42	10	4.5
90	--	753 665 579	0.279	125	122	30	42	10	5.4
110	IR	753 665 580	0.457	140	142	30	52	15	6.6
125	IR	753 665 581	0.618	160	152	35	52	15	7.4
140	IR	753 665 582	0.815	180	162	40	52	15	8.3
160	IR	753 665 583	1.014	200	162	40	52	15	9.5
180	IR	753 665 584	1.528	225	182	45	52	20	10.7
200	IR	753 665 585	1.887	250	182	45	52	20	11.9
225	IR	753 665 586	2.661	280	192	45	52	25	13.4
250	--	753 665 587	2.796	280	212	50	62	25	14.8
280	--	753 665 588	3.829	315	222	50	62	30	16.6
315	--	753 665 589	4.871	355	222	50	62	30	18.7
355	--	753 665 590	5.812	400	192	30	62	35	21.1
400	--	753 665 591	8.180	450	212	30	72	40	23.7
450	--	753 665 592	11.015	500	232	35	72	45	26.7
500	--	753 665 593	15.251	560	252	40	72	50	29.7
560	--	753 665 594	0.000	630	282	45	82	55	33.2
630	--	753 665 595	29.574	710	302	50	82	60	37.4

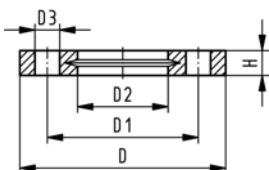
27 70 04
27 70 05

Backing flange PP-V For butt fusion systems metric

Model:

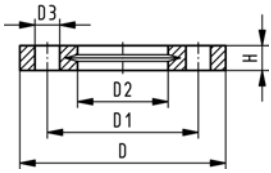
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12
25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12
32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12
40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16
50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16
63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16
75		65	16	727 700 412	0.480	185	145	92	18	26	4	M16
90		80	16	727 700 513	0.520	200	160	108	18	27	8	M16
110		100	16	727 700 514	0.680	220	180	128	18	28	8	M16
125		100	16	727 700 515	0.760	220	180	135	18	28	8	M16
140		125	16	727 700 516	0.800	250	210	158	18	30	8	M16
160	6	150	16	727 700 517	1.200	285	241	178	22	32	8	M20
180		150	16	727 700 518	1.200	285	240	188	22	32	8	M20
200	8	200	16	727 700 519	1.400	340	295	235	22	34	8	M20

table continued next page



d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
225	9	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
250		250	16	727 700 521	1.700	395	350	288	22	38	12	M20
280		250	16	727 700 522	1.700	395	350	294	22	38	12	M20
315		300	16	727 700 523	2.400	445	400	338	22	42	12	M20
355		350	10	727 700 524	3.000	515	460	376	22	46	16	M20
400		400	10	727 700 525	3.500	574	515	430	26	50	16	M24

27 70 14
27 70 15

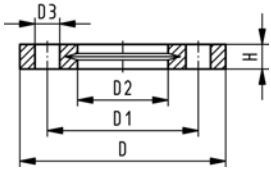
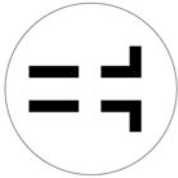
Backing flange PP-V For butt fusion systems Inch ANSI

Model:

- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt-fixing as an assembly aid
- UV-resistant. Applicable for outside applications
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

¹⁾ Suitable for socket- and butt fusion systems (no pictograph on flange)

AL: number of holes



Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2	15	16	727 701 406	0.080	95	60	28	16	16	4	M12
3/4	20	16	727 701 407	0.100	105	70	34	16	17	4	M12
1	25	16	727 701 408	0.140	115	79	42	16	18	4	M12
1 1/4	32	16	727 701 409	0.220	140	89	51	16	20	4	M16
1 1/2	40	16	727 701 410	0.210	150	98	62	16	22	4	M16
2	50	16	727 701 411	0.380	165	121	78	19	24	4	M16
2 1/2	65	16	727 701 412	0.480	185	140	92	19	26	4	M16
3	80	16	727 701 513	0.520	200	152	108	19	27	4	M16
4	100	16	727 701 514	0.680	229	190	128	19	28	8	M16
6	150	16	727 700 517	1.200	285	241	178	22	32	8	M20
8	200	16	727 700 519	1.400	340	295	235	22	34	8	M20
9	200	16	727 700 520	1.400	340	295	238	22	34	8	M20
10	250	16	727 701 521	1.800	406	362	288	26	38	12	M20
10	250	16	727 701 522	1.700	406	362	294	26	38	12	M20
12	300	16	727 701 523	2.400	483	432	338	26	42	12	M20

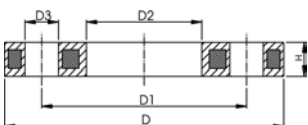
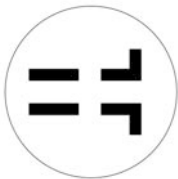
27 70 02
27 70 03

Backing flange PP-Steel For butt fusion systems metric

Model:

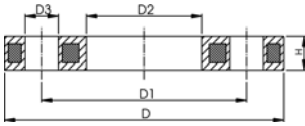
- Material: PP (30 % glass-fibre reinforced) with steel ring
- UV-resistant. Applicable for outside applications
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

AL: number of holes



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	727 700 206	0.220	95	65	28	14	12	4	M12
25	20	16	727 700 207	0.260	105	75	34	14	12	4	M12
32	25	16	727 700 208	0.430	115	85	42	14	16	4	M12
40	32	16	727 700 209	0.650	140	100	51	18	16	4	M16
50	40	16	727 700 210	0.820	150	110	62	18	20	4	M16
63	50	16	727 700 211	0.940	165	125	78	18	20	4	M16
75	65	16	727 700 212	1.300	185	145	92	18	20	4	M16
90	80	16	727 700 313	1.400	200	160	108	18	20	8	M16
110	100	16	727 700 314	1.580	220	180	128	18	20	8	M16
125	100	16	727 700 315	1.550	220	180	135	18	20	8	M16
140	125	16	727 700 316	2.360	250	210	158	18	24	8	M16
160	150	16	727 700 317	3.890	285	240	178	22	24	8	M20
180	150	16	727 700 318	3.410	285	240	188	22	24	8	M20
200	200	16	727 700 319	5.180	340	295	235	22	27	8	M20

table continued next page



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
225	200	16	727 700 320	5.150	340	295	238	22	27	8	M20
250	250	16	727 700 321	6.680	395	350	288	22	30	12	M20
280	250	16	727 700 322	6.580	395	350	294	22	30	12	M20
315	300	16	727 700 323	8.420	445	400	338	22	34	12	M20
355	350	16	727 700 324	15.790	515	460	376	22	40	16	M20
400	400	16	727 700 325	19.320	574	515	430	26	40	16	M24

24 70 04



Profiled backing flange PP/Steel For butt fusion systems metric

Model:

- PP with glass-fibre reinforcement and GGG 50 insert
- UV-resistant. Applicable for outside applications
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

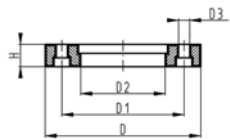
Note:

flat side = bolt side
profiled side = flange adaptor side

AL: number of holes



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
450	500	10	724 700 426	25.600	685	620	517	26	54	20	M24
500	500	10	724 700 427	24.300	685	620	533	26	54	20	M24
560	600	10	724 700 428	35.700	796	725	618	30	64	20	M27
630	600	10	724 700 429	32.500	800	725	645	30	58	20	M27
710	700	6	724 700 430	28.600	912	840	740	30	49	24	M27
800	800	6	724 700 431	39.300	1026	950	843	33	58	24	M30
900	900	6	724 700 432	48.500	1129	1050	947	33	62	28	M30



24 70 03



Profiled backing flange PP-Steel For butt fusion systems metric

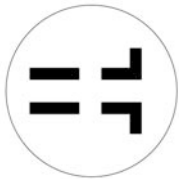
Model:

- PP with glass-fibre reinforcement and GGG 50 insert
- UV-resistant. Applicable for outside applications
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 16**

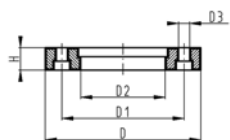
Note:

flat side = bolt side
profiled side = flange adaptor side

AL: number of holes

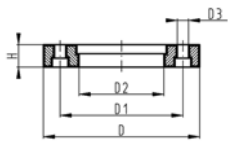
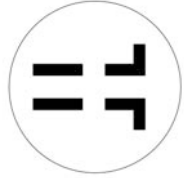


d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
200	200	16	724 700 319	3.720	344	295	235	22	28	12	M20
225	200	16	724 700 320	3.320	344	295	238	22	28	12	M20
250	250	16	724 700 321	6.390	410	355	288	26	33	12	M24
280	250	16	724 700 322	6.310	410	355	294	26	33	12	M24
315	300	16	724 700 323	9.740	455	410	338	26	40	12	M24
355	350	16	724 700 324	16.300	521	470	376	26	50	16	M24
400	400	16	724 700 325	20.600	582	525	430	30	54	16	M27



24 70 51

Profiled backing flange steel For butt fusion systems metric



Model:

- Ductile iron (GGG40), epoxy coated (black)
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

Note:

flat side = bolt side
profiled side = flange adaptor side

AL: number of holes

* d450DN450 available as of august 2010

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
* 450	450	10	724 705 026	18.000	615	565	462	26	39	20	M24
710	700	6	724 705 130	36.400	900	840	740	30	45	24	M27
800	800	6	724 705 131	50.500	1015	950	843	33	53	24	M30
900	900	6	724 705 132	55.800	1115	1050	947	33	56	28	M30
1000	1000	6	724 705 133	71.100	1230	1160	1050	36	62	28	M33
1200	1200	4	724 705 134	101.000	1455	1380	1260	39	68	32	M36

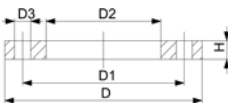
01 48 04

Backing flange steel For butt fusion systems metric

Model:

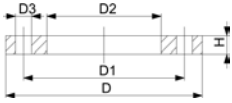
- Galvanized steel, suitable for underground laying
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 16**

AL: number of holes



d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
32	25	16	701 474 390	0.830	115	85	42	14	12	4	M12
40	32	16	701 474 391	1.430	140	100	51	18	14	4	M16
50	40	16	701 474 392	1.530	150	110	62	18	14	4	M16
63	50	16	701 474 393	1.840	165	125	78	18	16	4	M16
75	65	16	701 474 394	2.150	185	145	92	18	16	8	M16
90	80	16	701 474 395	2.830	200	160	108	18	18	8	M16
110	100	16	701 474 396	3.300	220	180	128	18	18	8	M16
125	100	16	701 474 397	3.170	220	180	135	18	18	8	M16
125	125	16	701 474 386	3.500	250	210	135	18	25	8	M16
140	125	16	701 474 387	4.100	250	210	158	18	18	8	M16
160	150	16	701 474 382	5.440	285	240	178	22	20	8	M20
180	150	16	701 474 398	5.180	285	240	188	22	20	8	M20
200	200	16	701 480 475	8.000	340	295	235	22	24	12	M20
225	200	16	701 480 476	7.810	340	295	238	22	24	12	M20
250	250	16	701 480 477	8.120	405	355	288	26	30	12	M24
280	250	16	701 480 478	8.320	405	355	294	26	30	12	M24
315	300	16	701 480 479	9.850	460	410	338	26	34	12	M24
355	350	16	701 480 480	10.500	520	470	376	26	35	16	M24
400	400	16	701 480 481	24.400	580	525	430	30	38	16	M27
450	500	16	701 480 482	37.000	715	650	517	33	46	20	M30
500	500	16	701 480 483	32.000	715	650	533	33	46	20	M30

01 47 43



Backing flange steel For butt fusion systems metric

Model:

- Galvanized steel, suitable for underground laying
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
200	200	10	701 474 383	6.630	340	295	235	22	20	8	M20
225	200	10	701 474 388	6.580	340	295	238	22	20	8	M20
250	250	10	701 474 399	9.090	395	350	288	22	22	12	M20
280	250	10	701 474 400	8.700	395	350	294	22	22	12	M20
315	300	10	701 474 401	12.500	445	400	338	22	26	12	M20
355	350	10	701 480 489	18.300	505	460	376	22	28	16	M20
400	400	10	701 480 490	24.400	565	515	430	36	32	16	M24
450	500	10	701 480 491	37.000	670	620	517	26	38	20	M24
500	500	10	701 480 492	32.000	670	620	533	26	38	20	M24
560	600	10	701 480 493	56.300	780	725	618	30	42	20	M27
630	600	10	701 480 494	47.200	780	725	645	30	42	20	M27

EPDM 48 40 03

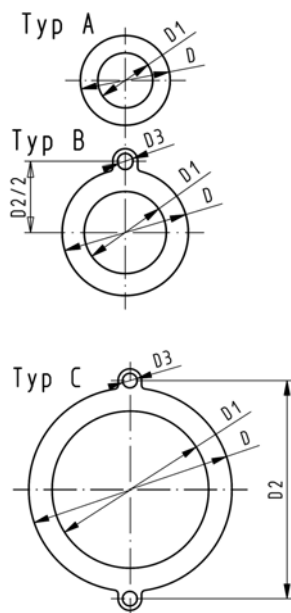


Flat gasket

Model:

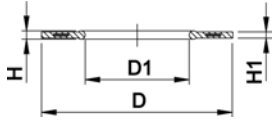
- For all metric GF Flange Adaptors
- Hardness approx. 65° Shore
- Integrated fixation aids from d110
- Centering on the inner diameter of the screw crown

di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	Type	EPDM Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	di FA [mm]
16	10	10	A	748 400 305	0.005	46	16			2	6 - 26
20	15	10	A	748 400 306	0.010	51	20			2	10 - 30
25	20	10	A	748 400 307	0.020	61	25			2	15 - 35
32	25	10	A	748 400 308	0.025	71	32			2	22 - 42
40	32	10	A	748 400 309	0.030	82	40			3	30 - 50
50	40	10	A	748 400 310	0.035	92	50			3	40 - 60
63	50	10	A	748 400 311	0.040	107	63			3	53 - 73
75	65	10	A	748 400 312	0.045	127	71			3	61 - 81
90	80	10	A	748 400 313	0.050	142	84			3	74 - 94
110	100	10	B	748 400 314	0.032	162	104	180	18	4	94 - 114
125	100	10	B	748 400 315	0.058	162	119	180	18	4	109 - 129
140	125	10	B	748 400 316	0.062	192	134	210	18	4	124 - 144
160 / 180	150	10	B	748 400 317	0.068	218	155	241	22	4	145 - 165
200	200	6	C	748 400 319	0.075	273	195	295	22	5	185 - 205
225	200	6	C	748 400 320	0.079	273	216	295	22	5	206 - 226
250	250	6	C	748 400 321	0.103	328	250	350	22	5	240 - 260
280	250	6	C	748 400 322	0.150	328	273	350	22	5	263 - 283
315	300	6	C	748 400 323	0.230	378	305	400	22	5	295 - 315

EPDM 48 44 07
FPM 49 44 07



Profile flange gasket metric

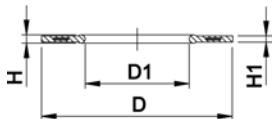
Model:

- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- **EPDM**: approved acc. to DVGW W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel

di FA are the suitable inner diameters of flange adaptors

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
16	10	16	748 440 705	749 440 705	0.007	46	16	4	3	6 - 16
20	15	16	748 440 706	749 440 706	0.008	51	20	4	3	10 - 20
25	20	16	748 440 707	749 440 707	0.011	61	22	4	3	12 - 22
32	25	16	748 440 708	749 440 708	0.014	71	28	4	3	18 - 28
40	32	16	748 440 709	749 440 709	0.021	82	40	4	3	30 - 40
50	40	16	748 440 710	749 440 710	0.022	92	46	4	3	36 - 46
63	50	16	748 440 711	749 440 711	0.041	107	58	5	4	48 - 58
75	65	16	748 440 712	749 440 712	0.055	127	69	5	4	59 - 69
90	80	16	748 440 713	749 440 713	0.062	142	84	5	4	73 - 84
110	100	16	748 440 714	749 440 714	0.085	162	104	6	5	94 - 104
125	100	16	748 440 715	749 440 715	0.158	162	123	6	5	113 - 123
140	125	16	748 440 716	749 440 716	0.118	192	137	6	5	127 - 137
160 / 180	150	16	748 440 717	749 440 717	0.153	218	160	8	6	150 - 160
200	200	16	748 440 719	749 440 719	0.263	273	203	8	6	192 - 203
225	200	16	748 440 720	749 440 720	0.181	273	220	8	6	207 - 220
250	250	16	748 440 721	749 440 721	0.410	328	252	8	6	238 - 252
280	250	16	748 440 722	749 440 722	0.226	328	274	8	6	264 - 274
315	300	16	748 440 723	749 440 723	0.334	378	306	8	6	296 - 306
355	350	16	748 440 724	749 440 724	0.410	438	355	10	7	340 - 355
400	400	16	748 440 725	749 440 725	0.513	489	400	10	7	385 - 400
450	500	16	748 440 726	749 440 726	0.718	594	403	10	7	393 - 403
500	500	16	748 440 727	749 440 727	0.718	594	447	10	7	437 - 447
560	600	16	748 440 728	749 440 728	0.923	695	494	10	7	484 - 494
630	600	16	748 440 729	749 440 729	0.923	695	555	10	7	545 - 555

45 44 07



Profile flange gasket metric NBR/DUO

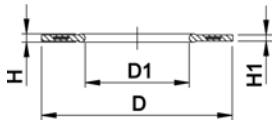
Model:

- For all metric GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- material steel insert: carbon steel
- NBR/DUO = Nitrile rubber, hardness approx. 80° Shore
- Suitable for drinking water and gas applications
- Approved acc. to DVGW standard DIN EN 682
- Approved acc. to DVGW W 270, KTW recommendation
- d corresponds to the centring at the inner diameter of the screw crown

di FA are the suitable inner diameters of flange adaptors

d [mm]	DN [mm]	PN	NBR/DUO Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
20	15	16	745 440 706	0.008	51	20	4	3	10 - 20
25	20	16	745 440 707	0.011	61	22	4	3	12 - 22
32	25	16	745 440 708	0.014	71	28	4	3	18 - 28
40	32	16	745 440 709	0.021	82	40	4	3	30 - 40
50	40	16	745 440 710	0.022	92	46	4	3	36 - 46
63	50	16	745 440 711	0.041	107	58	5	4	48 - 58
75	65	16	745 440 712	0.055	127	69	5	4	59 - 69
90	80	16	745 440 713	0.062	142	84	5	4	73 - 84
110	100	16	745 440 714	0.085	162	104	6	5	94 - 104
125	100	16	745 440 715	0.158	162	123	6	5	113 - 123
140	125	16	745 440 716	0.118	192	137	6	5	127 - 137
160 / 180	150	16	745 440 717	0.153	218	160	8	6	150 - 160
200	200	16	745 440 719	0.263	273	203	8	6	192 - 203

table continued next page



d [mm]	DN [mm]	PN	NBR/DUO Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
225	200	16	745 440 720	0.181	273	220	8	6	207 - 220
250	250	16	745 440 721	0.410	328	252	8	6	238 - 252
280	250	16	745 440 722	0.226	328	274	8	6	264 - 274
315	300	16	745 440 723	0.334	378	306	8	6	296 - 306
355	350	16	745 440 724	0.410	438	355	10	7	340 - 355
400	400	16	745 440 725	0.513	489	400	10	7	385 - 400
450	500	16	745 440 726	0.718	594	403	10	7	393 - 403
500	500	16	745 440 727	0.718	594	447	10	7	437 - 447
560	600	16	745 440 728	0.923	695	494	10	7	484 - 494
630	600	16	745 440 729	0.923	695	555	10	7	545 - 555

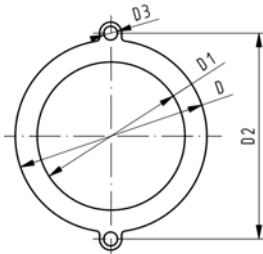
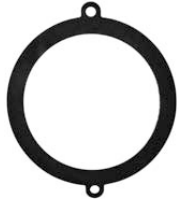
48 40 03

Flat gasket for flange adaptor



Model:

- Hardness : EPDM ca. 70° Shore
- Flange bolt circle: PN10
- Integrated fixation aids
- Centering on the inner diameter of the screw crown



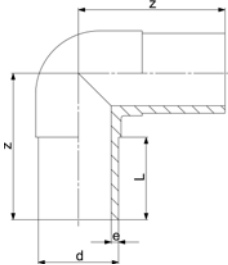
d [mm]	DN [mm]	PN* [bar]	EPDM Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]
710	700	6	748 400 330	0.900	810	625	840	30	5
800	800	6	748 400 331	1.000	917	705	950	33	5
900	900	6	748 400 332	1.200	1014	805	1050	36	5
1000	1000	6	748 400 333	1.400	1121	890	1160	39	5

Spigot Fittings for Electrofusion

53 10 10

Elbow 90°, PE100 SDR 11

- Long spigot version
- 10 bar Gas / 16 bar Water

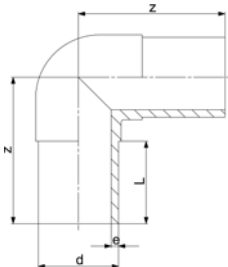


d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
20	753 101 006	0.027	75	52	3.0
25	753 101 007	0.037	80	52	3.0
32	753 101 008	0.053	85	54	3.0
40	753 101 009	0.093	95	57	3.7
50	753 101 010	0.159	105	63	4.6
63	753 101 011	0.275	115	65	5.8
75	753 101 012	0.413	130	72	6.8
90	753 101 013	0.704	150	81	8.2
110	753 101 014	1.145	165	86	10.0
125	753 101 015	1.609	180	93	11.4
140	753 101 016	1.920	194	92	12.7
160	753 101 017	3.100	210	103	14.6
180	753 101 018	4.319	232	107	16.4
200	753 101 019	5.733	253	117	18.2
225	753 101 020	7.780	270	122	20.5
250	753 101 001	10.500	292	130	22.7
280	753 100 922	15.286	320	140	25.4
315	753 100 923	21.960	370	150	28.6

53 10 08

Elbow 90°, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water

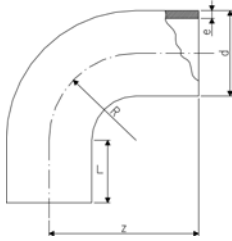


d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
90	753 100 813	0.544	150	81	5,4
110	753 100 814	0.625	165	86	6,6
125	753 100 815	0.927	180	93	7,4
140	753 100 816	1.430	194	92	8,3
160	753 100 817	3.040	210	102	9,5
180	753 100 818	3.750	232	107	10,7
200	753 100 819	4.980	253	115	11,9
225	753 100 820	6.850	270	120	13,4
250	753 100 821	8.274	292	130	14,8
280	753 100 822	11.423	320	140	16,6
315	753 100 823	16.050	370	150	18,7

53 00 09

Bend 90°, PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water
- * made out of seamless pipe

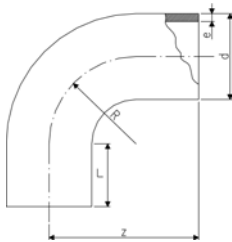


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
20	753 001 006	0.020	63	41	20	1,9
25	753 001 007	0.030	68	41	25	2,3
32	753 001 008	0.050	78	46	32	2,9
40	753 001 009	0.090	91	49	40	3,7
50	753 001 010	0.160	107	55	50	4,6
63	753 001 011	0.290	130	63	63	5,8
75	753 001 012	0.300	152	70	75	6,8
90	753 001 013	0.530	168	79	90	8,2
110	753 001 014	0.890	193	82	110	10,0
125	753 001 015	1.290	216	87	125	11,4
140	753 001 016	2.230	232	92	140	12,7
160	753 001 017	2.460	258	98	160	14,6
180	753 001 018	5.000	290	105	180	16,4
200	753 001 019	4.480	317	112	200	18,2
225	753 001 020	9.770	350	120	225	20,5
250	753 001 021	9.230	375	130	250	22,7
280	753 001 022	17.410	430	150	280	25,4
315	753 001 023	23.950	470	150	315	28,6
* 355	753 001 024	53.300	900	250	533	32,3
* 400	753 001 025	71.900	980	250	600	36,4
* 450	753 001 026	97.300	1070	250	675	40,9
* 500	753 001 027	134.000	1200	280	750	45,5
* 560	753 001 028	179.300	1290	280	840	50,9
* 630	753 001 029	243.200	1400	280	945	57,3
* 710	753 001 030	469.943	2200	570	1630	64,5
* 800	753 001 031	577.131	2200	480	1720	72,6

53 00 08

Bend 90°, PE100 SDR17

- Long spigot version
- 5 bar Gas / 10 bar Water
- * made out of seamless pipe

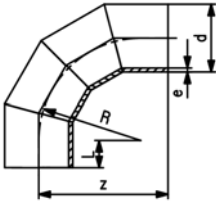


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
90	753 000 813	0.600	168	79	90	5,4
110	753 000 814	1.000	193	82	110	6,6
125	753 000 815	1.300	216	87	125	7,4
140	753 000 816	2.500	232	92	140	8,3
160	753 000 817	2.500	258	98	160	9,5
180	753 000 818	4.000	290	105	180	10,7
200	753 000 819	6.500	317	112	200	11,9
225	753 000 820	8.500	350	120	225	13,4
250	753 000 821	8.500	375	130	250	14,8
280	753 000 822	15.000	430	150	280	16,6
315	753 000 823	24.000	470	150	315	18,7
* 355	753 000 824	36.700	900	250	533	21,1
* 400	753 000 825	49.700	980	250	600	23,7
* 450	753 000 826	66.600	1070	250	675	26,7
* 500	753 000 827	87.400	1200	280	750	29,7
* 560	753 000 828	116.000	1290	280	840	33,2
* 630	753 000 829	159.600	1400	280	945	37,4
* 710	753 000 830	317.382	2200	570	1630	42,1
* 800	753 000 831	389.859	2200	480	1720	47,4

53 00 08

Bend 90°, PE100 SDR17**Model:**

- Long spigot
- Conventional butt-welding according to DVS 2207 part 1
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8
- 8 bar water

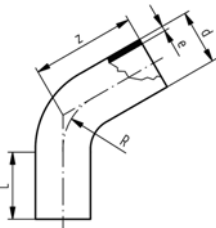


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
710	753 002 001	202.419	1415	350	1065	42.1
800	753 002 002	279.918	1550	350	1200	47.4
900	753 002 003	386.595	1700	350	1350	53.3
1000	753 002 004	534.660	1900	400	1500	59.3

53 07 10

Bend 60°, PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

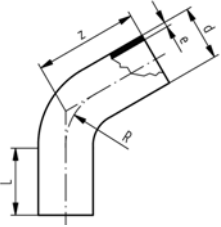


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
32	753 071 008	0.070	128	80	48	2,9
40	753 071 009	0.120	135	80	60	3,7
50	753 071 010	0.240	158	100	75	4,6
63	753 071 011	0.420	173	100	95	5,8
75	753 071 012	0.600	182	100	113	6,8
90	753 071 013	0.900	193	100	135	8,2
110	753 071 014	1.780	270	150	165	10,0
125	753 071 015	2.500	283	150	188	11,4
140	753 071 016	2.700	296	150	210	12,7
160	753 071 017	4.500	313	150	240	14,6
180	753 071 018	4.900	330	150	270	16,4
200	753 071 019	6.400	348	150	300	18,2
225	753 071 020	8.600	370	150	338	20,5
250	753 071 021	14.500	500	250	375	22,7
280	753 071 022	19.100	530	250	420	25,4
315	753 071 023	25.600	612	250	473	28,6
355	753 071 024	41.700	690	300	533	32,3
400	753 071 025	55.800	730	300	600	36,4
450	753 071 026	76.000	780	300	675	40,9
500	753 071 027	104.600	880	350	750	45,5
560	753 071 028	139.500	930	350	840	50,9
630	753 071 029	188.500	1000	350	945	57,3

53 07 08

Bend 60°, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

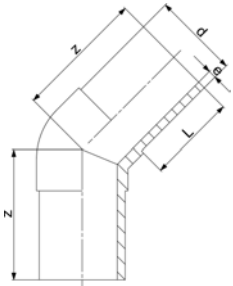


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
90	753 070 813	0.600	193	100	135	5,4
110	753 070 814	1.280	270	150	165	6,6
125	753 070 815	1.300	283	150	187	7,4
140	753 070 816	1.800	296	150	210	8,3
160	753 070 817	3.160	313	150	240	9,5
180	753 070 818	3.190	330	150	270	10,7
200	753 070 819	4.200	348	150	300	11,9
225	753 070 820	5.600	370	150	337	13,4
250	753 070 821	9.250	500	250	375	14,8
280	753 070 822	15.000	530	250	420	16,6
315	753 070 823	19.500	612	250	472	18,7
355	753 070 824	30.100	690	300	532	21,1
400	753 070 825	38.200	730	300	600	23,7
450	753 070 826	53.700	780	300	675	26,7
500	753 070 827	73.900	880	350	750	29,7
560	753 070 828	98.200	930	350	840	33,2
630	753 070 829	132.300	1000	350	945	37,4

53 15 10

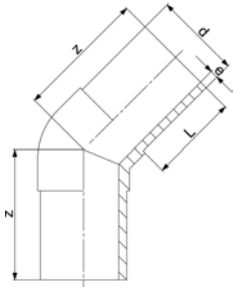
Elbow 45°, PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
20	753 151 006	0.026	70	52	3,0
25	753 151 007	0.035	75	52	3,0
32	753 151 008	0.051	80	54	3,0
40	753 151 009	0.082	85	57	3,7
50	753 151 010	0.137	90	63	4,6
63	753 151 011	0.300	95	65	5,8
75	753 151 012	0.346	105	72	6,8
90	753 151 013	0.578	120	81	8,2
110	753 151 014	0.931	130	86	10,0
125	753 151 015	1.286	140	92	11,4
140	753 151 016	1.600	164	120	12,7
160	753 151 017	2.461	162	102	14,6
180	753 151 018	3.283	170	107	16,4
200	753 151 019	4.371	186	116	18,2
225	753 151 020	6.013	200	123	20,5
250	753 151 021	8.541	220	130	22,7
280	753 150 922	10.924	226	140	25,4
315	753 150 923	14.818	246	150	28,6

53 15 08

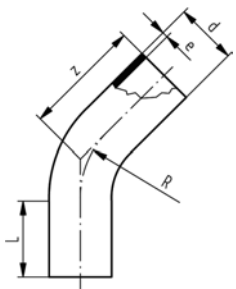


Elbow 45°, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water

d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
90	753 150 813	0.450	120	81	5,4
110	753 150 814	0.900	130	86	6,6
125	753 150 815	1.250	140	92	7,4
140	753 150 816	1.100	164	120	8,3
160	753 150 817	2.390	162	102	9,5
180	753 150 818	3.060	170	107	10,7
200	753 150 819	4.100	186	116	11,9
225	753 150 820	5.610	205	123	13,4
250	753 150 821	6.227	217	130	14,8
280	753 150 822	7.819	230	140	16,6
315	753 150 823	10.596	246	150	18,7

53 05 10



Bend 45°, PE100 SDR11

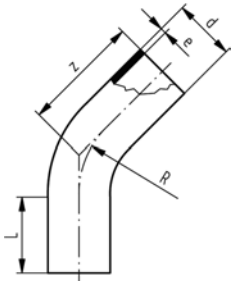
- Long spigot version
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
32	753 051 008	0.077	120	80	48	2,9
40	753 051 009	0.120	120	80	60	3,7
50	753 051 010	0.240	149	100	75	4,6
63	753 051 011	0.360	161	100	95	5,8
75	753 051 012	0.560	168	100	113	6,8
90	753 051 013	0.760	177	100	135	8,2
110	753 051 014	1.700	243	150	165	10,0
125	753 051 015	2.300	253	150	188	11,4
140	753 051 016	2.800	262	150	210	12,7
160	753 051 017	3.800	274	160	240	14,6
180	753 051 018	5.140	287	150	270	16,4
200	753 051 019	5.600	299	150	300	18,2
225	753 051 020	7.400	315	150	338	20,5
250	753 051 021	13.000	440	250	375	22,7
280	753 051 022	15.000	460	250	420	25,4
315	753 051 023	24.930	535	250	473	28,6
355	753 051 024	39.500	620	300	533	32,3
400	753 051 025	48.500	650	300	600	36,4
450	753 051 026	69.800	680	300	675	40,9
500	753 051 027	96.300	760	350	750	45,5
560	753 051 028	129.800	800	350	840	50,9
630	753 051 029	174.000	870	350	945	57,3

53 05 08

Bend 45°, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

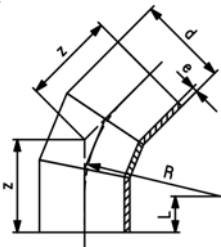


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
90	753 050 813	0.600	177	100	135	5,4
110	753 050 814	1.100	243	150	165	6,6
125	753 050 815	1.200	253	150	188	7,4
140	753 050 816	1.720	262	150	210	8,3
160	753 050 817	2.200	274	150	240	9,5
180	753 050 818	3.000	287	150	270	10,7
200	753 050 819	3.700	299	150	300	11,9
225	753 050 820	5.000	315	150	338	13,4
250	753 050 821	10.000	440	250	375	14,8
280	753 050 822	15.000	460	250	420	16,6
315	753 050 823	17.800	535	250	473	18,7
355	753 050 824	25.600	620	300	533	21,1
400	753 050 825	36.600	650	300	600	23,7
450	753 050 826	45.300	680	300	675	26,7
500	753 050 827	62.400	760	350	750	29,7
560	753 050 828	81.900	800	350	840	33,2
630	753 050 829	62.400	870	350	945	37,4

53 05 08

Bend 45°, PE100 SDR17/17,6**Model:**

- Long spigot
- Conventional butt-welding according to DVS 2207 part 1
- Production process: segment welded
- Segment-welded fittings have a pressure reduction factor of 0.8
- 8 bar water

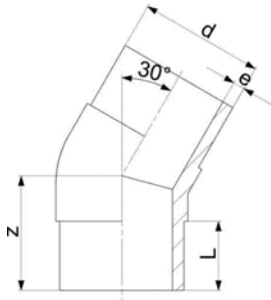


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
710	753 003 001	129.998	792	350	1065	42.1
800	753 003 002	176.165	847	350	1200	47.4
900	753 003 003	252.638	960	350	1350	53.3
1000	753 003 004	332.107	1022	400	1500	59.3

53 12 09

Elbow 30°, PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water
- Welded design

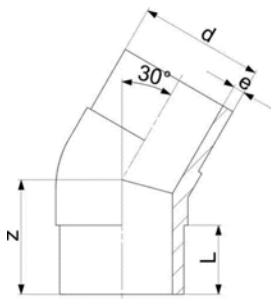


d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
32	753 120 908	0.050	70	54	3,0
40	753 120 909	0.530	80	57	3,7
50	753 120 910	0.530	80	63	4,6
63	753 120 911	0.207	80	65	5,8
75	753 120 912	0.530	90	72	6,8
90	753 120 913	0.540	100	81	8,2
110	753 120 914	0.840	105	86	10,0
125	753 120 915	1.240	115	92	11,4
140	753 120 916	1.760	135	92	12,7
160	753 120 917	2.050	130	102	14,6
180	753 120 918	2.907	140	107	16,4
200	753 120 919	8.600	150	116	18,2
225	753 120 920	5.360	165	123	20,5
250	753 120 921	7.300	190	130	22,7
280	753 120 922	10.600	200	139	25,4
315	753 120 923	10.100	200	150	28,6

53 12 08

Elbow 30°, PE100 SDR17

- Long spigot version
- 5 bar Gas / 10 bar Water
- Welded design

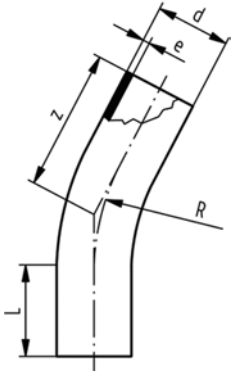


d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
90	753 120 813	0.430	110	81	5,4
110	753 120 814	0.620	115	86	6,6
125	753 120 815	1.070	125	92	7,4
140	753 120 816	1.490	150	92	8,3
160	753 120 817	1.600	140	102	9,5
180	753 120 818	2.040	150	107	10,7
200	753 120 819	2.780	160	116	11,9
225	753 120 820	3.880	180	123	13,4
250	753 120 821	5.830	200	130	14,8
280	753 120 822	8.100	200	139	16,6
315	753 120 823	11.200	220	150	18,7

53 06 10

Bend 30°, PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

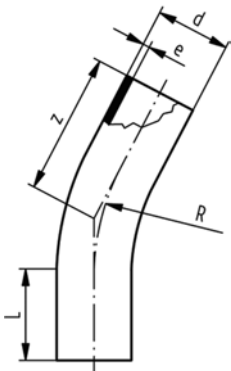


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
32	753 061 008	0.077	113	80	48	2,9
40	753 061 009	0.120	116	80	60	3,7
50	753 061 010	0.200	140	100	75	4,6
63	753 061 011	0.400	150	100	95	5,8
75	753 061 012	0.520	155	100	113	6,8
90	753 061 013	0.760	160	100	135	8,2
110	753 061 014	1.500	219	150	165	10,0
125	753 061 015	2.000	225	150	188	11,4
140	753 061 016	2.200	231	150	210	12,7
160	753 061 017	3.300	239	150	240	14,6
180	753 061 018	3.700	247	150	270	16,4
200	753 061 019	4.750	255	150	300	18,2
225	753 061 020	6.300	266	150	338	20,5
250	753 061 021	13.100	385	250	375	22,7
280	753 061 022	16.300	400	250	420	25,4
315	753 061 023	21.850	460	250	473	28,6
355	753 061 024	34.900	540	300	533	32,3
400	753 061 025	45.900	560	300	600	36,4
450	753 061 026	60.200	580	300	675	40,9
500	753 061 027	83.300	630	350	750	45,5
560	753 061 028	108.600	680	350	840	50,9
630	753 061 029	148.300	730	350	945	57,3

53 06 08

Bend 30°, PE100 SDR17

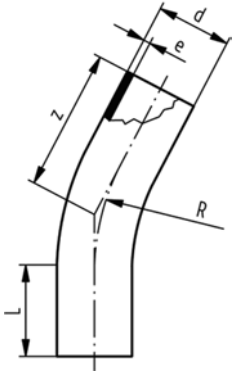
- Long spigot version
- 5 bar Gas / 10 bar Water
- made out of seamless pipe



d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
90	753 060 813	0.500	160	100	135	5,4
110	753 060 814	1.060	219	150	165	6,6
125	753 060 815	1.100	225	150	188	7,4
140	753 060 816	1.720	231	150	210	8,3
160	753 060 817	1.900	239	150	240	9,5
180	753 060 818	2.500	247	150	270	10,7
200	753 060 819	3.200	255	150	300	11,9
225	753 060 820	7.540	266	150	338	13,4
250	753 060 821	11.600	385	250	375	14,8
280	753 060 822	12.800	400	250	420	16,6
315	753 060 823	25.000	460	250	473	18,7
355	753 060 824	22.700	540	300	533	21,1
400	753 060 825	29.800	560	300	600	23,7
450	753 060 826	39.100	580	300	675	26,7
500	753 060 827	54.000	650	350	750	29,7
560	753 060 828	70.300	680	350	840	33,2
630	753 060 829	95.800	730	350	945	37,4

Bend 22°, PE100 SDR11

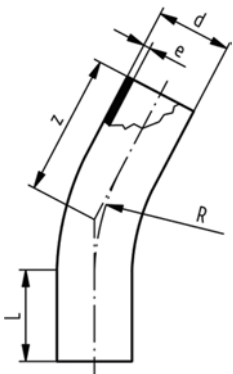
- Long spigot version
- 10 bar Gas / 16 bar Water
- made out of seamless pipe



d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
32	753 081 008	0.077	113	80	48	2,9
40	753 081 009	0.120	116	80	60	3,7
50	753 081 010	0.200	140	100	75	4,6
63	753 081 011	0.400	150	100	95	5,8
75	753 081 012	0.520	155	100	113	6,8
90	753 081 013	0.760	160	100	135	8,2
110	753 081 014	1.500	219	150	165	10,0
125	753 081 015	2.000	225	150	188	11,4
140	753 081 016	2.200	231	150	210	12,7
160	753 081 017	3.300	239	150	240	14,6
180	753 081 018	3.700	247	150	270	16,4
200	753 081 019	4.750	255	150	300	18,2
225	753 081 020	6.300	266	150	338	20,5
250	753 081 021	13.100	385	250	375	22,7
280	753 081 022	16.300	400	250	420	25,4
315	753 081 023	21.845	460	250	473	28,6
355	753 081 024	34.900	540	300	533	32,3
400	753 081 025	45.900	560	300	600	36,4
450	753 081 026	60.200	580	300	675	40,9
500	753 081 027	83.300	650	350	750	45,5
560	753 081 028	108.600	680	350	840	50,9
630	753 081 029	148.300	730	350	945	57,3

Bend 22°, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

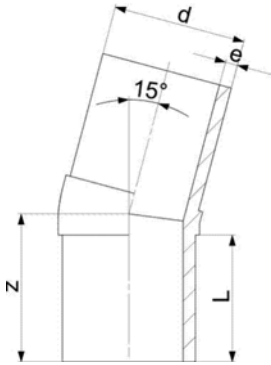


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
90	753 080 813	0.500	160	100	135	5.4
110	753 080 814	1.060	219	150	165	6.6
125	753 080 815	1.100	225	150	188	7.4
140	753 080 816	1.720	231	150	210	8.3
160	753 080 817	1.900	239	150	240	9.5
180	753 080 818	2.500	247	150	270	10.7
200	753 080 819	3.200	255	150	300	11.9
225	753 080 820	7.540	266	150	338	13.4
250	753 080 821	11.600	385	250	375	14.8
280	753 080 822	12.800	400	250	420	16.6
315	753 080 823	25.000	460	250	473	18.7
355	753 080 824	22.700	540	300	533	21.1
400	753 080 825	29.800	560	300	600	23.7
450	753 080 826	39.100	580	300	675	26.7
500	753 080 827	54.000	650	350	750	29.7
560	753 080 828	70.300	680	350	840	33.2
630	753 080 829	95.800	730	350	945	37.4

53 14 10

Elbow 15° Type L, PE100 SDR11

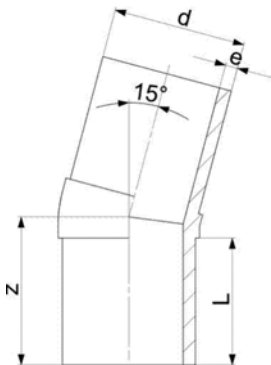
- Long spigot version
- 10 bar Gas / 16 bar Water
- Welded design



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
32	753 141 008	0.051	70	54	3.0
40	753 141 009	0.082	80	57	3.7
50	753 141 010	0.137	80	63	4.6
63	753 141 011	0.200	80	65	5.8
75	753 141 012	0.250	90	72	6.8
90	753 141 013	0.487	100	81	8.2
110	753 141 014	0.785	105	86	10.0
125	753 141 015	1.070	115	92	11.4
140	753 141 016	1.600	135	92	12.7
160	753 141 017	2.050	130	102	14.6
180	753 141 018	2.669	140	107	16.4
200	753 141 019	3.440	150	116	18.2
225	753 141 020	4.900	165	123	20.5
250	753 141 021	8.300	190	130	22.7
280	753 141 022	10.600	200	139	25.4
315	753 141 023	13.100	200	150	28.6

Elbow 15°, PE100 SDR17/17,6

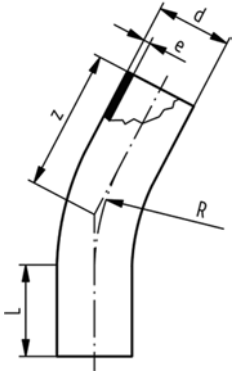
- Long spigot version
- 5 bar Gas / 10 bar Water
- Welded design



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
90	753 140 813	0.370	100	81	5.4
110	753 140 814	0.620	105	86	6.6
125	753 140 815	0.990	115	92	7.4
140	753 140 816	0.370	135	92	8.3
160	753 140 817	1.600	130	102	9.5
180	753 140 818	2.040	140	107	10.7
200	753 140 819	2.780	150	116	11.9
225	753 140 820	4.820	165	123	13.4
250	753 140 821	5.830	190	130	14.8
280	753 140 822	8.100	195	139	16.6
315	753 140 823	11.200	200	150	18.7

Bend 11°, PE100 SDR11

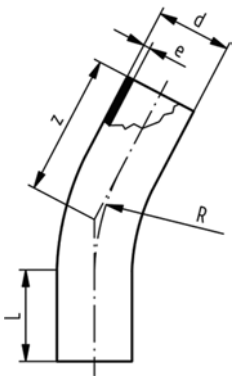
- Long spigot version
- 10 bar Gas / 16 bar Water
- made out of seamless pipe



d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
32	753 091 008	0.077	113	80	48	2.9
40	753 091 009	0.120	116	80	60	3.7
50	753 091 010	0.200	140	100	75	4.6
63	753 091 011	0.400	150	100	95	5.8
75	753 091 012	0.520	155	100	113	6.8
90	753 091 013	0.760	160	100	135	8.2
110	753 091 014	1.500	219	150	165	10.0
125	753 091 015	2.000	225	150	188	11.4
140	753 091 016	2.200	231	150	210	12.7
160	753 091 017	3.300	239	150	240	14.6
180	753 091 018	3.700	247	150	270	16.4
200	753 091 019	4.750	255	150	300	18.2
225	753 091 020	6.300	266	150	338	20.5
250	753 091 021	13.100	385	250	375	22.7
280	753 091 022	16.300	400	250	420	25.4
315	753 091 023	21.845	460	250	473	28.6
355	753 091 024	34.900	540	300	533	32.3
400	753 091 025	45.900	560	300	600	36.4
450	753 091 026	60.200	580	300	675	40.9
500	753 091 027	83.300	650	350	750	45.5
560	753 091 028	108.600	680	350	840	50.9
630	753 091 029	148.300	730	350	945	57.3

Bend 11°, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

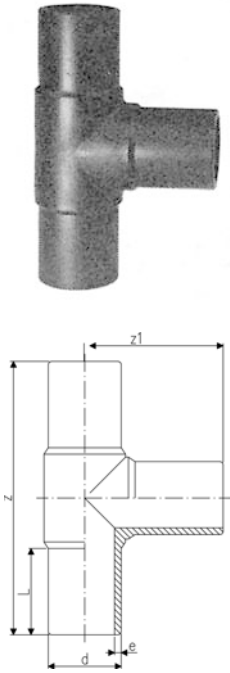


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]
90	753 090 813	0.500	160	100	135	5.4
110	753 090 814	1.060	219	150	165	6.6
125	753 090 815	1.100	225	150	188	7.4
140	753 090 816	1.720	231	150	210	8.3
160	753 090 817	1.900	239	150	240	9.5
180	753 090 818	2.500	247	150	270	10.7
200	753 090 819	3.200	255	150	300	11.9
225	753 090 820	7.540	266	150	338	13.4
250	753 090 821	11.600	385	250	375	14.8
280	753 090 822	12.800	400	250	420	16.6
315	753 090 823	25.000	460	250	473	18.7
355	753 090 824	22.700	540	300	533	21.1
400	753 090 825	29.800	560	300	600	23.7
450	753 090 826	39.100	580	300	675	26.7
500	753 090 827	54.000	650	350	750	29.7
560	753 090 828	70.300	680	350	840	33.2
630	753 090 829	95.800	730	350	945	37.4

53 20 10

Tee 90°, equal PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water
- * With welded pipes
- * Segment welded and reinforced
- * No pressure reduction factor

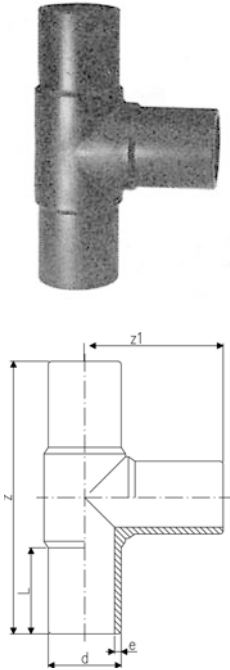


d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]
20	753 201 006	0.038	150	75	52	3,0
25	753 201 007	0.054	160	80	52	3,0
32	753 201 008	0.074	170	85	54	3,0
40	753 201 009	0.127	190	95	57	3,7
50	753 201 010	0.217	210	105	63	4,6
63	753 201 011	0.375	230	115	65	5,8
75	753 201 012	0.616	264	132	72	6,8
90	753 201 013	1.031	300	150	81	8,2
110	753 201 014	1.660	330	165	86	10,0
125	753 201 015	2.215	366	183	92	11,4
140	753 201 016	3.200	393	193	92	12,7
160	753 201 017	4.320	420	210	102	14,6
180	753 201 018	5.980	460	230	107	16,4
200	753 201 019	7.760	500	250	117	18,2
225	753 201 020	10.485	540	270	122	20,5
250	753 201 001	14.708	575	288	130	22,7
280	753 200 902	18.670	615	308	139	25,4
315	753 200 903	26.150	695	346	150	28,6
355	753 200 904	39.800	818	410	165	32,3
400	753 200 905	42.495	910	455	180	36,4
450	753 200 906	77.300	970	485	195	40,9
500	753 200 907	101.000	1060	530	215	45,5
* 560	753 200 908	153.300	1510	755	230	50,9
* 630	753 200 909	205.500	1630	815	250	57,3
☉ * 710	753 201 120	318.698	1720	860	450	64,5
☉ * 800	753 201 121	409.142	1780	890	450	72,6

53 20 08

Tee 90°, equal PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water
- * Segment welded and reinforced
- * With welded pipes
- * No pressure reduction factor

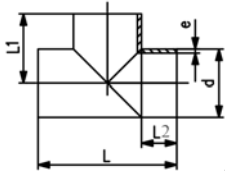


d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]
90	753 200 813	0.780	300	150	80	5,4
110	753 200 814	1.440	330	165	86	6,6
125	753 200 815	1.646	366	183	92	7,4
140	753 200 816	2.120	396	196	92	8,3
160	753 200 817	3.970	428	214	104	9,5
180	753 200 818	5.450	460	230	105	10,7
200	753 200 819	5.910	500	250	115	11,9
225	753 200 820	8.240	540	270	122	13,4
250	753 200 821	10.793	575	288	130	14,8
280	753 200 802	13.810	615	308	139	16,6
315	753 200 803	18.155	695	346	150	18,7
355	753 200 804	25.850	818	410	165	21,1
400	753 200 805	35.015	910	455	180	23,7
450	753 200 806	56.000	970	485	195	26,7
500	753 200 807	71.000	1060	530	215	29,7
* 560	753 200 808	99.200	1510	755	230	33,2
* 630	753 200 809	132.700	1630	815	250	37,4
☉ * 710	753 201 920	219.870	1720	860	450	42,1
☉ * 800	753 201 921	281.495	1780	890	450	47,4

53 20 08

Tee 90° equal, PE100 SDR17/17,6**Model:**

- Long spigot
- Conventional butt-welding according to DVS 2207 part 1
- Production process: segment welded
- Does not conform to pressure rating. Pressure reduction factor of 0.5
- 5 bar water

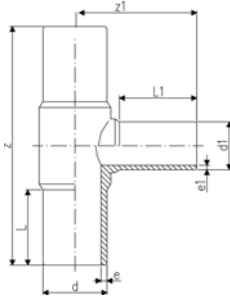


d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]	
710	753 202 810	158.180	1410	705	350	42.1	
800	753 202 811	210.302	1500	750	350	47.4	
900	753 202 812	302.118	1700	850	400	53.3	
1000	753 202 813	457.054	2040	1020	520	59.3	

53 20 10

Tee 90° reduced, moulded, PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water

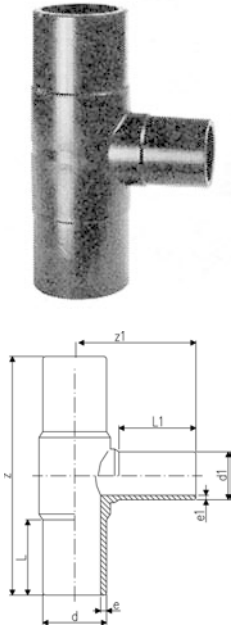


d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]	
63	50	753 201 044	0.300	215	103	63	56	5.8	4.6	
75	32	753 201 045	0.490	256	108	70	46	6.8	2.9	
75	50	753 201 046	0.530	253	113	70	56	6.8	4.6	
75	63	753 201 047	0.560	255	117	70	63	6.8	5.8	
90	50	753 201 027	0.820	280	117	79	55	8.2	4.6	
90	63	753 201 029	0.775	280	123	79	63	8.2	5.8	
90	75	753 201 030	0.793	272	138	73	68	8.2	6.8	
110	63	753 201 028	1.267	320	147	87	63	10.0	5.8	
110	75	753 201 031	1.244	309	151	82	70	10.0	6.8	
110	90	753 201 032	1.275	320	158	86	79	10.0	8.2	
125	90	753 201 048	2.389	340	170	112	92	11.4	8.2	
125	110	753 201 033	1.860	341	170	90	83	11.4	10.0	
160	63	753 201 034	2.680	343	176	98	65	14.6	5.8	
160	75	753 201 035	2.726	343	180	98	74	14.6	6.8	
160	90	753 201 036	2.775	412	188	101	79	14.6	8.2	
160	110	753 201 037	3.300	412	195	101	82	14.6	10.0	
180	90	753 201 049	4.100	420	200	136	97	16.4	8.2	
180	110	753 201 050	4.379	430	206	130	101	16.4	10.0	
180	160	753 201 038	4.379	411	205	105	94	16.4	14.6	
200	63	753 201 073	7.300	500	190	122	63	18.2	5.8	
200	90	753 201 074	9.730	500	207	122	79	18.2	8.2	
200	110	753 201 075	9.730	500	215	122	82	18.2	10.0	
200	160	753 201 076	9.730	500	234	122	98	18.2	14.6	
225	75	753 201 039	6.500	555	215	120	70	20.5	6.8	
225	90	753 201 040	6.633	558	226	120	80	20.5	8.2	
225	110	753 201 041	6.600	558	235	120	82	20.5	10.0	
225	160	753 201 042	8.095	560	253	120	98	20.5	14.6	
225	180	753 201 043	9.375	560	280	120	105	20.5	16.4	
250	110	753 201 078	9.730	575	242	130	82	22.7	10.0	
250	160	753 201 079	9.730	575	261	127	98	22.7	14.6	
315	110	753 201 051	15.300	695	277	150	82	28.6	10.0	
315	160	753 201 052	16.600	695	296	150	102	28.6	14.6	
315	225	753 201 053	20.500	650	335	170	145	28.6	20.5	
315	250	753 201 054	22.000	695	325	150	130	28.6	22.7	

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Tee 90° reduced, moulded, PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water

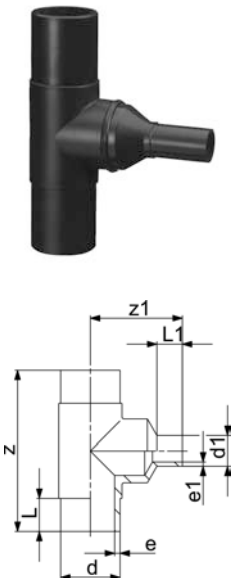


d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]	e1 [mm]
90	50	753 201 827	0.630	275	117	79	55	5.4	3,0	3,0
90	63	753 200 829	0.560	275	123	79	63	5.4	3,8	3,8
90	75	753 200 830	0.593	272	139	74	71	5.4	4,5	4,5
110	63	753 200 828	0.900	318	147	82	63	6.6	3,8	3,8
110	75	753 200 831	0.882	315	152	84	70	6.6	4,5	4,5
110	90	753 200 832	0.941	318	158	82	79	6.6	5,4	5,4
125	110	753 200 833	1.282	334	168	84	83	7.4	6,6	6,6
160	63	753 200 834	1.950	330	130	86	63	9.5	3,8	3,8
160	75	753 200 835	1.960	343	180	98	74	9.5	4,5	4,5
160	90	753 200 836	1.972	410	188	98	79	9.5	5,4	5,4
160	110	753 200 837	2.414	410	195	98	82	9.5	6,6	6,6
180	90	753 200 844	3.218	422	204	134	97	10.7	5,4	5,4
180	160	753 200 838	5.890	411	205	105	94	10.7	9,5	9,5
200	63	753 201 873	6.800	500	190	122	63	11.9	3,8	3,8
200	90	753 201 874	6.900	500	207	122	79	11.9	5,4	5,4
200	110	753 201 875	7.200	500	215	122	82	11.9	6,6	6,6
200	160	753 201 876	7.400	500	234	122	98	11.9	9,5	9,5
225	75	753 200 839	4.600	555	277	120	70	13.4	4,5	4,5
225	90	753 200 840	4.732	555	226	127	80	13.4	5,4	5,4
225	110	753 200 841	4.700	555	235	127	82	13.4	6,6	6,6
225	160	753 200 842	5.922	555	253	127	98	13.4	9,5	9,5
225	180	753 200 843	7.211	550	280	120	105	13.4	10,7	10,7
250	110	753 201 878	9.400	575	242	130	82	14.8	6,6	6,6
250	160	753 201 879	9.800	575	261	130	98	14.8	9,5	9,5
315	110	753 200 851	10.800	695	277	150	82	18.7	6,6	6,6
315	160	753 200 852	12.200	695	296	150	102	18.7	9,5	9,5
315	225	753 200 853	14.500	650	335	170	145	18.7	13,4	13,4
315	250	753 200 854	15.500	695	325	150	130	18.7	14,8	14,8

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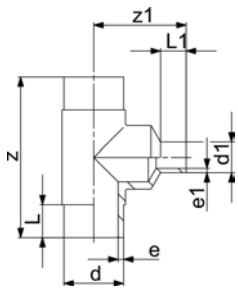
Tee 90°, reduced with welded reducer

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water



d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
25	20	753 201 002	0.053	160		52	52	3,0	3,0
32	20	753 201 003	0.094	170	105	54	52	3,0	3,0
32	25	753 201 004	0.098	170	110	54	52	3,0	3,0
40	20	753 201 005	0.155	190	120	57	52	3,7	3,0
40	25	753 201 069	0.160	190	120	57	52	3,7	3,0
40	32	753 201 070	0.160	190	120	57	52	3,7	3,0
50	20	753 201 072	0.252	210	140	63	52	4,6	3,0
50	25	753 201 077	0.260	210	130	63	52	4,6	3,0
50	32	753 201 080	0.267	210	130	63	53	4,6	3,0
50	40	753 201 081	0.276	210	130	63	57	4,6	3,7
63	32	753 201 082	0.460	230	140	65	53	5,8	3,0
63	40	753 201 116	0.480	230	145	65	57	5,8	3,7
75	40	753 201 084	0.755	264	180	72	57	6,8	3,7
125	63	753 201 085	2.850	366	225	92	61	11,4	5,8
125	75	753 201 086	2.880	366	235	92	72	11,4	6,8
140	75	753 201 087	4.050	396	230	92	70	12,7	6,8
140	90	753 201 089	4.095	396	235	92	79	12,7	8,2
140	110	753 201 090	3.600	396	240	92	82	12,7	10,0
140	125	753 201 091	4.170	396	240	92	90	12,7	11,4
160	125	753 201 092	5.715	420	265	102	92	14,6	11,4
160	140	753 201 093	5.895	420	270	102	96	14,6	12,7
180	125	753 201 094	8.930	460	285	107	92	16,4	11,4
180	140	753 201 095	9.070	460	295	107	110	16,4	12,7
200	125	753 201 096	10.460	500	295	117	92	18,2	11,4
200	140	753 201 097	10.570	500	310	117	110	18,2	12,7

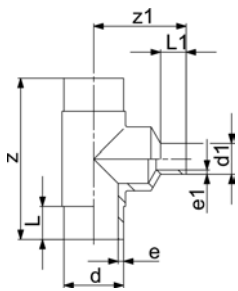
table continued next page



d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
200	180	753 201 098	10.900	500	310	117	110	18,2	16,4
225	125	753 201 099	14.470	540	320	122	92	20,5	11,4
225	140	753 201 100	14.574	540	335	122	110	20,5	12,7
225	200	753 201 101	14.925	540	340	122	117	20,5	18,2
250	180	753 201 102	18.890	576	350	130	105	22,7	16,4
250	200	753 201 103	19.220	576	360	130	112	22,7	18,2
250	225	753 201 104	19.690	576	390	130	120	22,7	20,5
280	200	753 201 105	24.520	616	410	139	112	25,4	18,2
280	225	753 201 106	24.755	616	420	139	120	25,4	20,5
280	250	753 201 107	25.210	616	420	139	130	25,4	22,7
315	200	753 201 108	33.950	690	470	150	134	28,6	18,2
315	280	753 201 109	34.950	690	480	150	139	28,6	25,4
355	250	753 201 110	48.900	818	530	165	130	32,3	22,7
355	280	753 201 111	49.300	818	480	165	139	32,3	25,4
355	315	753 201 112	49.690	818	480	165	150	32,3	28,6
400	280	753 201 113	52.915	910	530	180	139	36,4	25,4
400	315	753 201 114	53.625	910	580	180	150	36,4	28,6
400	355	753 201 115	54.075	910	675	180	165	36,4	32,3

Tee 90°, reduced with welded reducer PE100 SDR17/17,6

• 5 bar Gas / 10 bar Water

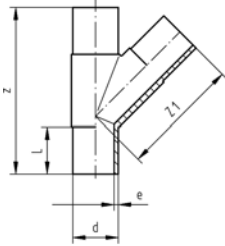


d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
125	63	753 200 801	2.115	366	215	92	61	7.4	3.8
125	75	753 200 810	2.140	366	235	92	72	7.4	4.5
125	90	753 200 811	2.180	366	235	92	80	7.4	5.4
140	75	753 200 812	2.820	396	240	92	70	8.3	4.5
140	90	753 200 822	2.855	396	240	92	78	8.3	5.4
140	110	753 200 823	2.910	396	235	92	82	8.3	6.6
140	125	753 200 824	2.955	396	240	92	87	8.3	7.4
160	125	753 200 825	3.970	428	265	104	90	9.5	5.4
160	140	753 200 826	4.070	428	280	104	96	9.5	8.3
180	110	753 200 827	5.250	460	285	105	92	10.7	6.6
180	125	753 200 845	5.070	460	285	105	90	10.7	7.4
180	140	753 200 846	5.290	460	305	105	110	10.7	8.3
200	125	753 200 847	7.100	500	310	115	92	11.9	7.4
200	140	753 200 848	7.200	500	315	115	110	11.9	8.3
200	180	753 200 849	6.900	500	315	115	110	11.9	10.7
225	125	753 200 850	8.620	540	320	122	92	13.4	7.4
225	140	753 200 855	8.780	540	345	122	110	13.4	8.3
225	200	753 200 856	9.300	540	335	122	115	13.4	11.9
250	180	753 200 857	15.000	576	340	130	105	14.8	10.7
250	200	753 200 858	15.440	576	350	130	112	14.8	11.9
250	225	753 200 859	15.620	576	370	130	120	14.8	13.4
280	200	753 200 860	19.200	616	400	139	112	16.6	11.9
280	225	753 200 861	19.500	616	400	139	120	16.6	13.4
280	250	753 200 862	20.120	616	400	139	130	16.6	14.8
315	200	753 200 863	18.700	690	480	150	134	18.7	11.9
315	280	753 200 864	26.940	690	480	150	139	18.7	16.6
355	250	753 200 865	35.770	818	480	165	130	21.1	14.8
355	280	753 200 866	36.330	818	480	165	139	21.1	16.6
355	315	753 200 867	37.740	818	490	165	150	21.1	18.7
400	280	753 200 868	48.330	910	540	180	139	23.7	16.6
400	315	753 200 869	48.880	910	580	180	150	23.7	18.7
400	355	753 200 870	50.020	910	675	180	165	23.7	21.1

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Tee 45° equal PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water

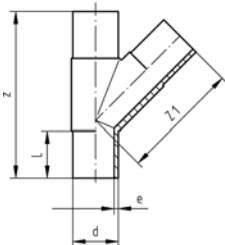


d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]
63	753 251 011	0.500	255	158	63	5,8
75	753 251 012	0.800	301	190	70	6,8
90	753 251 013	1.300	368	234	79	8,2
110	753 251 014	1.800	395	260	82	10,0

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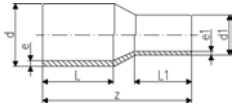
Tee 45° equal PE100 SDR17/17,6

- 5 bar Gas / 10 bar Water



d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]
90	753 251 063	0.800	368	234	79	5,4
110	753 251 064	1.400	395	260	82	6,6

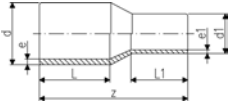
Reducer PE100 SDR11



- Long spigot version
- 10 bar Gas / 16 bar Water

d [mm]	d1 [mm]	Code	kg	z [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
25	20	753 901 038	0.022	115	52	52	3,0	3,0
32	20	753 901 042	0.028	120	54	52	3,0	3,0
32	25	753 901 041	0.031	120	54	52	3,0	3,0
40	20	753 901 048	0.040	130	57	52	3,7	3,0
40	25	753 901 047	0.043	130	57	52	3,7	3,0
40	32	753 901 046	0.047	130	57	53	3,7	3,0
50	20	753 901 055	0.064	150	63	52	4,6	3,0
50	25	753 901 054	0.066	140	63	52	4,6	3,0
50	32	753 901 053	0.067	140	63	53	4,6	3,0
50	40	753 901 052	0.079	140	63	57	4,6	3,7
63	32	753 901 060	0.109	150	65	53	5,8	3,0
63	40	753 901 059	0.119	150	65	57	5,8	3,7
63	50	753 901 058	0.130	150	65	63	5,8	4,6
75	40	753 901 063	0.178	170	72	57	6,8	3,7
75	50	753 901 064	0.191	170	72	63	6,8	4,6
75	63	753 901 065	0.216	170	72	65	6,8	5,8
90	50	753 901 072	0.291	190	81	63	8,2	4,6
90	63	753 901 071	0.317	190	81	65	8,2	5,8
90	75	753 901 070	0.361	190	81	70	8,2	6,8
110	63	753 901 078	0.469	205	86	65	10,0	5,8
110	75	753 901 077	0.497	205	86	70	10,0	6,8
110	90	753 901 076	0.557	205	86	81	10,0	8,2
125	63	753 901 083	0.579	214	87	63	11,4	5,8
125	75	753 901 082	0.660	210	92	72	11,4	6,8
125	90	753 901 081	0.735	212	92	81	11,4	8,2
125	110	753 901 080	0.819	212	92	86	11,4	10,0
140	75	753 901 086	0.560	230	110	70	12,7	6,8
140	90	753 901 087	0.690	230	110	79	12,7	8,2
140	110	753 901 084	0.820	230	110	88	12,7	10,0
140	125	753 901 085	0.988	235	110	90	12,7	11,4
160	90	753 901 088	1.060	244	120	79	14,6	8,2
160	110	753 901 090	1.240	244	102	86	14,6	10,0
160	125	753 901 089	1.403	245	102	92	14,6	11,4
160	140	753 901 032	1.350	260	120	110	14,6	12,7
180	90	753 901 073	1.530	245	105	79	16,4	8,2
180	110	753 901 074	1.720	270	105	82	16,4	10,0
180	125	753 901 091	1.753	258	107	92	16,4	11,4
180	140	753 901 075	1.980	270	120	110	16,4	12,7
180	160	753 901 033	2.044	255	107	102	16,4	14,6
200	140	753 901 066	2.310	275	120	110	18,2	12,7
200	160	753 901 092	2.472	265	117	102	18,2	14,6
200	180	753 901 034	2.580	265	117	107	18,2	16,4
225	140	753 901 067	2.900	295	130	110	20,5	12,7
225	160	753 901 096	3.118	279	122	102	20,5	14,6
225	180	753 901 095	3.277	280	122	107	20,5	16,4
225	200	753 901 094	3.538	280	122	117	20,5	18,2
250	160	753 901 000	2.385	300	130	100	22,7	14,6
250	180	753 901 068	4.050	295	130	105	22,7	16,4
250	200	753 901 001	2.385	315	130	112	22,7	18,2
250	225	753 901 002	2.385	332	130	120	22,7	20,5
280	200	753 901 098	6.850	333	140	112	25,4	18,2
280	225	753 901 099	6.090	335	140	120	25,4	20,5
280	250	753 901 003	2.385	340	140	130	25,4	22,7
315	200	753 901 004	2.385	380	180	134	28,6	18,2
315	225	753 901 097	7.790	365	150	120	28,6	20,5
315	250	753 901 005	2.385	365	150	130	28,6	22,7
315	280	753 901 012	8.800	365	150	139	28,6	25,4
355	250	753 901 013	9.100	390	165	130	32,3	22,7
355	280	753 901 014	9.500	390	165	139	32,3	25,4
355	315	753 901 015	9.900	390	165	150	32,3	28,6
400	280	753 901 016	10.420	415	180	139	36,4	25,4
400	315	753 901 017	11.130	415	180	150	36,4	28,6

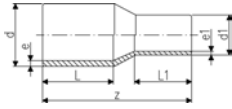
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d [mm]	d1 [mm]	Code	kg	z [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
400	355	753 901 018	11.600	420	180	165	36,4	32,3
450	280	753 901 019	16.200	389	195	139	40,9	25,4
450	315	753 901 020	16.700	390	195	150	40,9	28,6
450	355	753 901 022	17.500	393	195	164	40,9	32,3
450	400	753 901 024	18.500	395	195	179	40,9	36,4
500	315	753 901 025	21.900	422	212	150	45,5	28,6
500	355	753 901 026	22.600	424	212	164	45,5	32,3
500	400	753 901 027	23.600	426	212	179	45,5	36,4
500	450	753 901 029	25.100	428	212	195	45,5	40,9
560	355	753 901 030	30.100	459	230	164	50,9	32,3
560	400	753 901 039	31.000	461	230	179	50,9	36,4
560	450	753 901 040	32.400	463	230	195	50,9	40,9
560	500	753 901 043	34.100	466	230	212	50,9	45,5
630	400	753 901 044	41.900	502	250	179	57,3	36,4
630	450	753 901 045	43.100	503	250	195	57,3	40,9
630	500	753 901 049	44.700	506	250	212	57,3	45,5
630	560	753 901 050	46.800	506	250	230	57,3	50,9

Reducer PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water





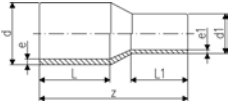
d [mm]	d1 [mm]	Code	kg	z [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
90	63	753 900 872	0.216	182	79	70	5,4	3,8
90	75	753 900 870	0.202	185	79	70	5,4	4,5
110	63	753 900 877	0.326	185	82	63	6,6	3,8
110	90	753 900 876	0.650	205	85	80	6,6	5,4
125	63	753 900 882	0.610	200	87	63	7,4	3,8
125	90	753 900 881	0.700	215	90	80	7,4	5,4
125	110	753 900 880	0.810	215	90	85	7,4	6,6
140	75	753 900 886	0.560	230	112	70	8,3	4,5
140	90	753 900 887	0.610	230	112	79	8,3	5,4
140	110	753 900 884	0.660	230	112	82	8,3	6,6
140	125	753 900 885	0.712	235	115	87	8,3	7,4
160	90	753 900 888	0.752	248	120	85	9,5	5,4
160	110	753 900 890	0.930	245	100	85	9,5	6,6
160	125	753 900 889	1.380	245	100	90	9,5	7,4
160	140	753 900 831	1.380	260	120	110	9,5	8,3
180	90	753 900 873	1.010	237	105	79	10,7	5,4
180	110	753 900 874	1.600	270	120	92	10,7	6,6
180	125	753 900 891	1.710	255	105	90	10,7	7,4
180	140	753 900 875	1.720	270	120	110	10,7	8,3
180	160	753 900 832	2.100	255	105	100	10,7	9,5
200	140	753 900 866	1.800	275	120	110	11,9	8,3
200	160	753 900 892	2.370	265	115	100	11,9	9,5
200	180	753 900 893	2.580	265	115	105	11,9	10,7
225	140	753 900 867	1.450	280	120	100	13,4	8,3
225	160	753 900 896	2.980	280	120	100	13,4	9,5
225	180	753 900 895	3.160	280	120	105	13,4	10,7
225	200	753 900 894	3.750	280	120	115	13,4	11,9
250	160	753 900 800	2.850	290	130	100	14,8	9,5
250	180	753 900 868	3.100	295	130	105	14,8	10,7
250	200	753 900 801	3.210	302	130	112	14,8	11,9
250	225	753 900 802	2.385	332	162	120	14,8	13,4
280	200	753 900 898	3.800	333	140	112	16,6	11,9
280	225	753 900 899	4.100	335	140	120	16,6	13,4
280	250	753 900 803	2.385	340	140	130	16,6	14,8
315	200	753 900 804	6.200	380	180	134	18,7	11,9
315	225	753 900 807	6.200	365	150	120	18,7	13,4
315	250	753 900 805	6.420	365	150	130	18,7	14,8
315	280	753 900 806	5.940	365	150	140	18,7	16,6
355	250	753 900 808	5.270	390	165	130	21,1	14,8
355	280	753 900 809	5.830	390	165	140	21,1	16,6
355	315	753 900 810	7.240	390	165	150	21,1	18,7
400	280	753 900 811	7.930	415	180	140	23,7	16,6
400	315	753 900 812	8.480	415	180	150	23,7	18,7
400	355	753 900 813	9.620	420	180	165	23,7	21,1
450	280	753 900 814	11.500	389	195	140	26,7	16,6
450	315	753 900 815	11.600	390	195	150	26,7	18,7
450	355	753 900 816	11.900	393	195	164	26,7	21,1
450	400	753 900 817	12.700	395	195	179	26,7	23,7
500	315	753 900 818	15.500	422	212	150	29,7	18,7
500	355	753 900 819	15.700	424	212	164	29,7	21,1
500	400	753 900 820	16.200	426	212	179	29,7	23,7
500	450	753 900 821	17.000	428	212	195	29,7	26,7
560	355	753 900 822	21.400	459	230	164	33,2	21,1
560	400	753 900 823	21.700	461	230	179	33,2	23,7
560	450	753 900 824	22.300	463	230	195	33,2	26,7
560	500	753 900 825	23.200	466	230	212	33,2	29,7
630	400	753 900 826	29.700	502	250	179	37,4	23,7
630	450	753 900 827	30.100	503	250	195	37,4	26,7
630	500	753 900 828	30.800	506	250	212	37,4	29,7
630	560	753 900 829	31.900	506	250	230	37,4	33,3
	710	753 900 833	58.796	790	300	300	42,1	29,7
	710	753 900 834	60.578	770	300	300	42,1	33,2

table continued next page



d [mm]	d1 [mm]	Code	kg	z [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]
710	630	753 900 835	62.448	740	300	300	42,1	37,4
800	560	753 900 836	75.842	800	300	300	47,4	33,2
800	630	753 900 837	78.255	780	300	300	47,4	37,4
800	710	753 900 838	80.504	750	300	300	47,4	42,1
900	630	753 900 839	99.282	820	300	300	53,3	37,4
900	710	753 900 840	100.908	790	300	300	53,3	42,1
900	800	753 900 841	103.578	760	300	300	53,3	47,4
1000	710	753 900 842	124.232	820	300	300	59,3	42,1
1000	800	753 900 843	125.277	780	300	300	59,3	47,4
1000	900	753 900 844	126.638	740	300	300	59,3	53,3

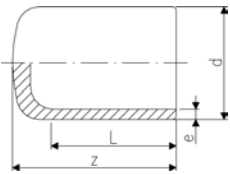
53 96 10

Cap PE100 SDR11

- Long spigot version
- 10 bar Gas / 16 bar Water

Note:

* Fabricated fitting made from pipe



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
20	753 961 006	0.009	52	52	3,0
25	753 961 007	0.013	52	52	3,0
32	753 961 008	0.017	54	54	3,0
40	753 961 009	0.031	57	57	3,7
50	753 961 010	0.050	63	63	4,6
63	753 961 011	0.085	65	65	5,8
75	753 961 012	0.145	80	72	6,8
90	753 961 013	0.240	90	81	8,2
110	753 961 014	0.387	98	86	10,0
125	753 961 015	0.546	105	92	11,4
140	753 961 016	0.835	136	92	12,7
160	753 961 017	1.026	120	102	14,6
180	753 961 018	1.369	128	107	16,4
200	753 961 019	1.839	138	115	18,2
225	753 961 020	2.500	148	122	20,5
250	753 961 021	3.927	205	130	22,7
280	753 960 922	5.344	235	139	25,4
315	753 960 923	7.176	255	150	28,6
355	753 960 924	9.780	280	165	32,3
400	753 960 925	13.370	310	180	36,4
* 450	753 960 926	20.800	275	195	40,9
* 500	753 960 927	28.400	297	212	45,5
* 560	753 960 928	39.100	325	230	50,9
* 630	753 960 929	59.700	355	250	57,3

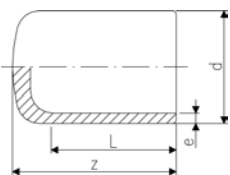
53 96 08

Cap PE100 SDR17/17,6

- Long spigot version
- 5 bar Gas / 10 bar Water

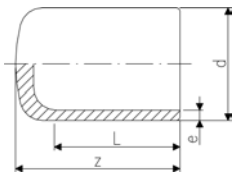
Note:

* Fabricated fitting made from pipe

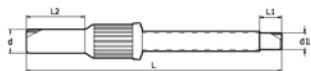


d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
50	753 960 810	0.036	70	55	3,0
63	753 960 811	0.066	82	63	3,8
75	753 960 812	0.105	92	70	4,5
90	753 960 813	0.220	90	81	5,4
110	753 960 814	0.350	98	86	6,6
125	753 960 815	0.520	105	92	7,4
140	753 960 816	0.522	136	92	8,3
160	753 960 817	0.990	120	102	9,5
180	753 960 818	1.360	128	107	10,7
200	753 960 819	1.880	138	115	11,9
225	753 960 820	2.420	148	122	13,4
250	753 960 821	2.547	205	130	14,8

table continued next page



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]
280	753 960 822	3.523	235	139	16,6
315	753 960 823	4.758	255	150	18,7
355	753 960 824	6.510	280	165	21,1
400	753 960 825	9.330	310	180	23,7
* 450	753 960 826	15.800	265	195	26,7
* 500	753 960 827	21.400	287	212	29,7
* 560	753 960 828	29.400	310	230	33,2
* 630	753 960 829	41.400	340	250	37,4
* 710	753 960 830	53.950	310	190	42,1
* 800	753 960 831	73.281	320	190	47,4
* 900	753 960 832	98.923	330	190	53,5
* 1000	753 960 833	123.925	340	190	59,3



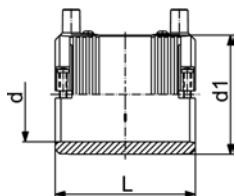
Transition Fittings PE / steel

- PE 100 SDR 11 (ISO S5)
- 6 bar Gas / 16 bar Water
- Electrofusion weldable
- Steel pipe acc. to EN 10208-1, PE coated for corrosion resistance
- * Steel pipe without plastic shroud

d [mm]	Code	kg	d [mm]	L [mm]	L1 [mm]	L2 [mm]
* 20	775 641 502	0.500	20	427	35	41
25	775 641 507	0.640	25	462	35	41
32	775 641 510	0.940	32	462	35	44
40	775 641 514	1.200	40	470	35	49
50	775 641 518	1.440	50	475	35	55
63	775 641 524	1.930	63	480	35	63
75	775 641 632	2.800	75	545	35	70
90	775 641 636	3.700	90	562	45	79
110	775 641 640	3.800	110	580	45	82
110	775 641 641	6.600	110	580	45	82
125	775 641 645	6.700	125	584	45	87
160	775 641 655	11.300	160	607	45	98
180	775 641 659	11.800	180	605	45	105
200	775 642 664	19.100	200	615	45	112
225	775 642 669	19.500	225	620	45	120
250	775 642 665	20.500	250	640	45	129
250	775 642 666	30.000	250	645	45	129
280	775 642 673	31.000	280	637	45	139
315	775 642 672	47.000	315	730	45	150
355	775 642 675	49.000	355	732	45	164
400	775 642 678	94.000	400	770	45	179

Electrofusion Fittings

53 91 16

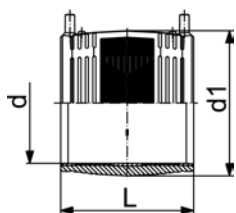


Coupler with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Removable centre stop

d [mm]	Code	kg	d1 [mm]	L [mm]
20	753 911 606	0.054	31	68
25	753 911 607	0.060	36	68
32	753 911 608	0.072	44	72
40	753 911 609	0.100	54	80
50	753 911 610	0.136	66	88
63	753 911 611	0.194	81	96

53 91 16

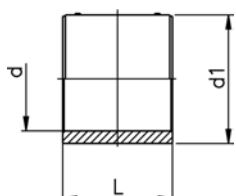


Coupler

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Removable centre stop up to d160

d [mm]	Code	kg	d1 [mm]	L [mm]
75	753 911 612	0.287	96	110
90	753 911 613	0.421	113	125
110	753 911 614	0.697	138	145
125	753 911 615	0.738	154	158
140	753 911 616	0.968	172	168
160	753 911 617	1.390	196	180
180	753 911 618	1.750	219	194
200	753 911 619	2.350	244	208
225	753 911 620	3.193	273	224
250	753 911 621	4.210	304	244
280	753 911 622	5.675	340	252
315	753 911 623	8.000	382	268
355	753 911 624	12.110	432	290
400	753 911 625	15.993	487	290

53 91 18

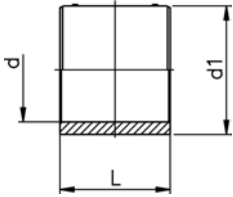


Coupler

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- d160 with removable centre stop

d [mm]	Code	kg	d1 [mm]	L [mm]
160	753 911 817	1.050	186	180
180	753 911 818	1.450	213	194
200	753 911 819	1.800	233	208
225	753 911 820	2.385	261	224
250	753 911 821	4.345	304	244
280	753 911 822	5.675	340	252
315	753 911 823	8.000	382	268
355	753 911 824	8.200	414	290
400	753 911 825	15.993	487	290
450	753 911 826	16.000	522	313
500	753 911 827	22.000	579	343

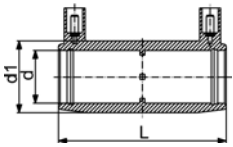
53 91 18



Coupler

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- 2 separate welding zones
- **Installation only with pressure pad kit (799 301 561)**
- For welding with MSA fusion units a generator with min. 4 kW power output is recommended

d [mm]	Code	kg	d1 [mm]	L [mm]	
560	753 911 828	25.500	638	392	
630	753 911 829	35.000	716	442	

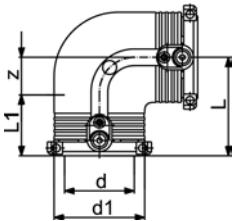


Coupler long

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Removable centre stop

d [mm]	Code	kg	d1 [mm]	L [mm]	z [mm]	
32	753 911 208	0.084	44	104	2	
40	753 911 209	0.135	56	121	2	
50	753 911 210	0.215	68	139	2	
63	753 911 211	0.318	82	166	2	

53 10 16

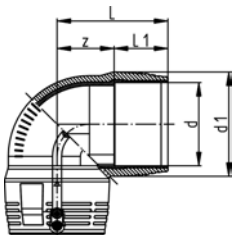


Elbow 90° with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
20	753 101 606	0.093	35	54	34	20	
25	753 101 607	0.078	35	54	34	20	
32	753 101 608	0.098	44	53	36	17	
40	753 101 609	0.142	54	62	39	23	
50	753 101 610	0.215	66	71	43	28	
63	753 101 611	0.280	81	81	48	32	

53 10 18

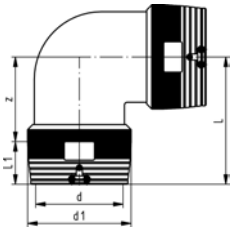


Elbow 90°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
75	753 101 812	0.530	97	101	61	40	
90	753 101 813	0.822	115	122	62	60	
110	753 101 814	1.190	140	147	72	76	
125	753 101 815	1.829	151	142	74	68	
160	753 101 817	3.433	196	178	92	86	
180	753 101 818	4.286	219	195	95	100	

53 10 18

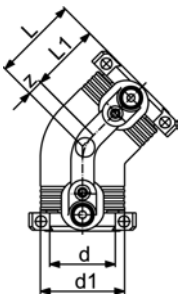


Elbow 90°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
200	753 101 819	8.173	245	265	104	161
225	753 101 820	12.440	274	305	112	193
250	753 101 821	15.800	305	335	123	212

53 15 16

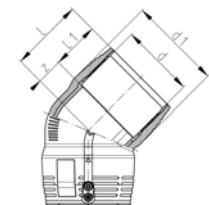


Elbow 45° with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
32	753 151 608	0.087	44	44	36	8
40	753 151 609	0.121	54	50	39	11
50	753 151 610	0.140	66	56	43	13
63	753 151 611	0.274	81	63	48	15

53 15 18



Elbow 45°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

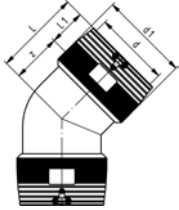
d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
75	753 151 812	0.437	97	79	62	17
90	753 151 813	0.537	115	91	62	29
110	753 151 814	0.974	140	112	72	40
125	753 151 815	1.420	160	127	78	49
160	753 151 817	1.800	196	134	92	42
180	753 151 818	3.200	217	142	95	47

53 15 18

Elbow 45°



- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones



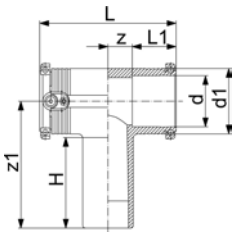
d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
200	753 151 819	6.810	245	215	104	111	
225	753 151 820	10.590	274	235	112	123	
250	753 151 821	12.740	305	263	123	140	

53 21 16

Tee 90°, equal with Integral Clamp



- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators



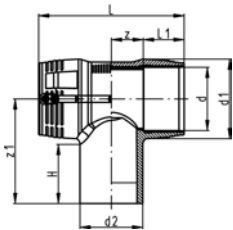
d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
20	753 211 606	0.100	35	90	34	11	92	67
25	753 211 607	0.088	35	90	34	11	92	70
32	753 211 608	0.115	44	102	36	15	100	74
40	753 211 609	0.176	54	120	39	21	114	82
50	753 211 610	0.268	66	135	43	24	126	90
63	753 211 611	0.429	81	152	48	28	150	102

53 20 18

Tee 90° equal

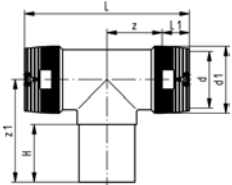


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators



d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
75	753 201 812	0.597	97	187	61	33	126	78
90	753 201 813	0.910	115	205	62	41	161	94
110	753 201 814	1.420	140	255	72	56	184	104
125	753 201 815	2.200	161	276	78	60	207	113
160	753 201 817	4.893	196	325	92	71	206	103
180	753 201 818	6.770	225	344	90	82	250	110

53 20 18

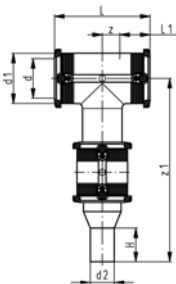


Tee 90°, equal

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
200	753 201 819	10.100	245	560	104	176	250	117
225	753 201 820	15.145	274	610	112	193	270	122
250	753 201 821	18.100	305	667	123	211	288	127

93 28 10

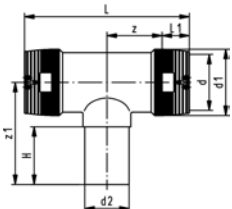


Tee 90°, reduced (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Integral pipe fixation (up to d63)
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler and Spigot Reducer

d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
40	20	193 281 004	0.314	54	120	39	21	244	212
40	25	193 281 005	0.319	54	120	39	21	244	212
75	40	193 280 998	1.060	97	187	61	33	296	248
90	50	193 280 999	1.620	112	202	61	41	336	274
110	63	193 280 961	2.670	136	242	65	56	366	293
125	63	193 280 963	3.690	151	256	75	53	361	279
125	110	193 280 965	3.920	151	256	75	53	389	307
160	125	193 280 969	8.250	196	325	92	71	451	348
180	90	193 281 032	10.056	225	344	90	82	487	347
180	110	193 281 033	10.246	225	344	90	82	495	355

53 21 10



Tee 90°, reduced

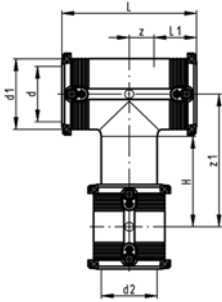
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
160	63	753 211 037	4.940	196	405	90	113	176	65
160	90	753 211 039	5.040	196	405	90	113	188	79
160	110	753 211 040	5.160	196	405	90	113	195	85
200	90	753 211 059	11.260	245	557	104	175	215	81
200	110	753 211 060	11.260	245	557	104	175	218	84
200	160	753 211 063	11.260	245	557	104	175	236	101
225	90	753 211 069	12.700	274	615	112	196	226	80
225	110	753 211 070	12.750	274	615	112	196	235	85
225	160	753 211 073	13.200	274	615	112	196	255	105
250	110	753 211 080	11.260	305	668	123	211	245	85
250	160	753 211 083	11.260	305	668	123	211	264	101

53 20 16

Tee 90° with weldable outlet (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Integral pipe fixation (up to d63)
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler or ELGEF® Plus Reducer

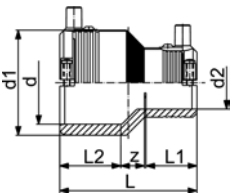


d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
20	20	753 201 606	0.170	35	90	34	11	92	67
25	25	753 201 607	0.170	35	90	34	11	92	70
32	32	753 201 608	0.213	44	102	36	15	100	74
40	32	193 281 006	0.248	54	120	39	21	127	95
40	40	753 201 609	0.295	54	120	39	21	114	82
50	32	193 281 007	0.364	66	135	43	24	144	108
50	40	193 281 008	0.404	66	135	43	24	140	104
50	50	753 201 610	0.419	66	135	43	24	126	90
63	32	193 280 997	0.550	81	152	48	28	173	125
63	40	193 281 009	0.605	81	152	48	28	169	121
63	50	193 281 010	0.618	81	152	48	28	165	117
63	63	753 201 611	0.641	81	152	48	28	150	102
90	63	193 281 011	1.300	112	202	61	41	182	120
90	90	753 201 613	1.450	112	202	61	41	146	84
110	90	193 281 012	2.294	136	242	65	56	200	127
110	110	753 201 614	2.400	136	242	65	56	161	88
125	90	193 281 013	2.850	151	256	75	53	214	132
125	125	753 201 615	2.930	151	256	75	53	174	92
160	110	193 281 030	6.093	196	325	92	71	271	168
160	160	753 201 617	6.664	196	325	92	71	206	103
180	125	193 281 031	8.770	225	344	90	82	330	190
180	180	753 201 618	9.600	225	344	90	82	250	110

53 90 16

Reducer with Integral Clamp

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators



d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
25	20	753 901 639	0.059	35	74	34	34	6
32	20	753 901 640	0.071	44	79	33	36	10
32	25	753 901 641	0.060	44	79	33	36	10
40	20	753 901 644	0.069	54	88	33	39	15
40	25	753 901 645	0.071	54	88	33	39	15
40	32	753 901 646	0.072	54	88	33	39	13
50	32	753 901 651	0.096	66	96	35	43	18
50	40	753 901 652	0.136	66	96	39	43	14
63	32	753 901 656	0.171	81	106	35	48	23
63	40	753 901 657	0.176	81	106	39	48	19
63	50	753 901 658	0.189	81	106	43	48	15

53 90 18

Reducer

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

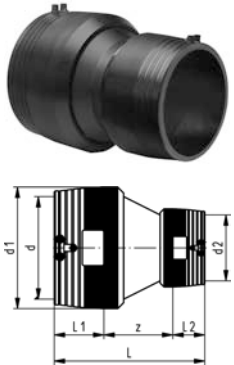


d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
90	63	753 901 831	0.360	113	146	63	47	36
110	90	753 901 833	0.657	138	173	73	63	38
125	90	753 901 836	0.878	152	180	79	61	40
160	110	753 901 834	1.200	196	226	91	70	65
180	125	753 901 835	2.000	220	247	97	70	80

53 90 18

Reducer

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones



d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
200	160	753 901 837	4.150	245	311	104	90	117
225	160	753 901 838	5.240	274	331	112	90	129
250	160	753 901 840	7.100	305	362	123	90	149
250	200	753 901 841	7.680	305	380	123	104	153

93 28 09

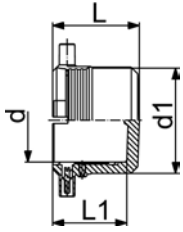
Reducer (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Integral pipe fixation (up to d63)
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler and Spigot Reducer



d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
75	40	193 280 992	0.567	96	265	55	40	170
75	50	193 280 993	0.610	96	269	55	44	170
75	63	193 280 994	0.700	96	273	55	48	170
90	50	193 280 958	0.848	113	297	63	44	190
90	75	193 280 995	1.070	113	308	63	55	190
110	63	193 280 950	1.490	138	326	73	48	205
110	75	193 280 996	1.480	138	333	73	55	205
125	63	193 280 953	1.580	154	314	79	48	187
125	110	193 280 951	2.360	154	367	79	73	215
160	90	193 280 954	3.060	196	370	90	63	217
160	125	193 280 952	3.680	196	414	90	79	245
180	110	193 280 959	4.167	214	413	95	73	245

53 96 16

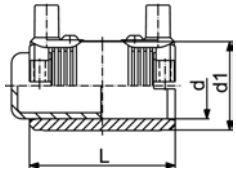


End Cap with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]
20	753 961 606	0.038	35	52	44
25	753 961 607	0.030	35	52	44
32	753 961 608	0.080	44	52	44
40	753 961 609	0.074	54	56	47
50	753 961 610	0.086	66	60	49
63	753 961 611	0.154	81	66	54

53 96 17

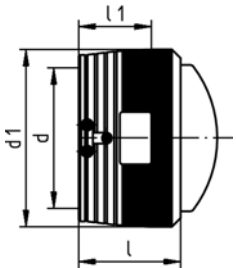


End cap (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler
- * Article to be discontinued, replaced by 53 96 16

d [mm]	Code	kg	d1 [mm]	L [mm]
75	753 961 712	0.446	96	110
90	753 961 713	0.680	113	125
110	753 961 714	1.126	133	145
125	753 961 715	1.594	155	158
140	753 961 716	2.250	175	170
* 160	753 961 717	2.712	197	180
180	753 961 718	4.136	220	194
* 200	753 961 719	4.906	245	208
* 225	753 961 720	6.500	296	224

53 96 16

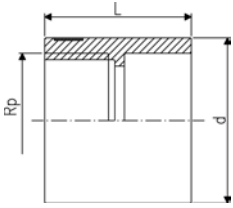


End Cap

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]
160	753 961 617	1.840	196	129	90
200	753 961 619	3.040	245	147	104
225	753 961 620	4.140	274	157	112
250	753 961 621	5.860	305	173	123

73 28 19

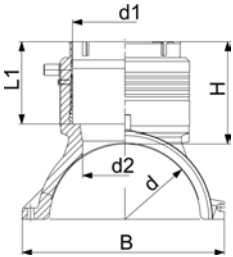


PE Adaptor Female thread

- PE 80 SDR 11 (ISO S5)
- 5 bar Gas / 12,5 bar Water
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- For ELGEF Plus Branch Saddle (753 131 000) d63 - 400mm, pipe SDR 11, d75 - 400mm, pipe SDR 17
- Parallel female thread
- *PE 100 SDR 11 (ISO S5)

d [mm]	Rp [inch]	Code	kg	L [mm]
63	1 ½	173 281 925	0.096	54

51 336 001



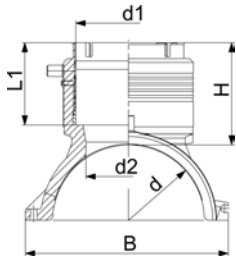
Branch Fitting

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch Fitting complete, incl. lower part and 3 screws
- Additional fixing with snatch hinge
- Electrofusion outlet with integrated pipe fixation
- Protected wire without medium contact
- 4 mm pin connectors
- Limited path fusion indicators
- * Delivered without lower part. Pipe fixation with multiple use assembly tool no. 193 281 027

d [mm]	d1 [mm]	Code	kg	H [mm]	L [mm]	L1 [mm]	B [mm]	d2 [mm]
110	90	193 135 009	1.074	101	220	82	164	65
110	110	193 135 010	1.152	107	220	88	164	65
125	90	193 135 019	1.134	101	220	82	179	65
125	110	193 135 020	1.258	107	220	88	179	65
* 140	90	193 135 029	1.134	101	220	81	195	65
* 140	110	193 135 030	1.258	107	220	87	195	65
160	90	193 135 039	1.444	102	240	82	215	65
160	110	193 135 040	1.523	108	240	88	215	86
160	125	193 135 041	1.738	129	240	99	215	86
180	90	193 135 049	1.714	102	260	82	237	65
180	110	193 135 050	1.782	108	260	88	237	86
180	125	193 135 051	1.972	129	260	99	237	86
200	90	193 135 059	1.811	102	260	82	253	65
200	110	193 135 060	1.879	108	260	88	253	86
200	125	193 135 061	2.069	129	260	99	253	86
225	90	193 135 069	1.959	102	260	82	287	65
225	110	193 135 070	2.027	108	260	88	287	86
225	125	193 135 071	2.217	129	260	99	287	86
250	90	193 135 079	2.116	102	260	82	312	65
250	110	193 135 080	2.184	108	260	88	312	86
250	125	193 135 081	2.374	129	260	99	312	86

51 336 001

Branch Fitting Topload

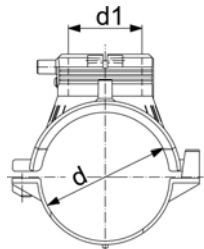


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch Fitting for assembling as Topload with tool 799.350.477; angle adaptors (799.350.340) for fusion cable required
- Electrofusion outlet with integrated pipe fixation
- Protected wire without medium contact
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	d1 [mm]	Code	kg	H [mm]	L [mm]	L1 [mm]	B [mm]	d2 [mm]
280	90	193 135 289	1.180	102	260	82	243	65
280	110	193 135 290	1.280	108	260	88	243	86
280	125	193 135 291	1.480	129	260	99	243	86
315 - 355	90	193 135 309	1.180	102	260	82	249	65
315 - 355	110	193 135 310	1.280	108	260	88	249	86
315 - 355	125	193 135 311	1.480	129	260	99	249	86
400 - 450	90	193 135 329	1.180	102	260	82	256	65
400 - 450	110	193 135 330	1.280	108	260	88	256	86
400 - 450	125	193 135 331	1.280	129	260	99	256	86
500 - 630	90	193 135 159	1.060	102	260	82	263	65
500 - 630	110	193 135 160	1.160	108	260	88	263	86
500 - 630	125	193 135 161	1.360	129	260	99	263	86

53 131 000

Electrofusion Saddle



L = length / Länge

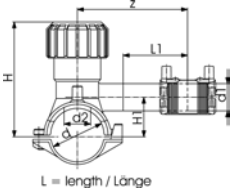
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Complete with lower part
- ***Complete with moulded-on lower part
- 4 mm pin connectors
- Limited path fusion indicators

*not suitable for all tapping-tees, tapping-valves and spigots with cutter of the modular systems

** = not suitable for all tapping-tees, tapping-valves and spigots with cutter of the modular systems / delivery without lower part for assembling as Top load with tool 799.350.475

d [mm]	d1 [mm]	Code	kg	L [mm]
63	63	193 131 037	0.335	165
75	63	193 131 047	0.465	165
90	63	193 131 057	0.425	165
110	63	193 131 067	0.493	165
125	63	193 131 077	0.523	165
140	63	193 131 087	0.523	165
160	63	193 131 097	0.526	165
180	63	193 131 107	0.632	165
200	63	193 131 117	0.651	165
225	63	193 131 127	0.653	165
* 250	63	193 131 137	0.665	165
** 280	63	193 131 147	0.370	165
** 315 - 400	63	193 131 157	0.370	165

53 132 400

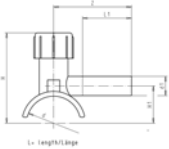


Tapping Saddle (Kit) Monobloc version

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring-sealed screw cap
- Supplied as Kit with enclosed service line fitting (ELGEF Plus Coupler or Reducer)

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]
40	20	193 132 412	0.324	16	99	33	103	70	102
40	25	193 132 413	0.331	16	99	33	103	70	102
40	32	193 132 414	0.353	16	99	33	103	70	120
50	20	193 132 422	0.325	16	105	38	103	70	102
50	25	193 132 423	0.323	16	105	38	103	70	102
50	32	193 132 424	0.342	16	105	38	103	70	120
63	20	193 132 432	0.486	25	134	44	126	70	115
63	25	193 132 433	0.492	25	134	44	126	70	115
63	32	193 132 434	0.507	25	134	44	126	70	130
63	40	193 132 435	0.534	25	134	44	126	70	130

53 131 400

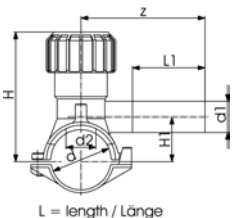


Tapping Saddle Monobloc topload

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Delivery without lower part for assembling as Topload with tool no. 799 301 558
- 4 mm pin connectors
- Fusion indicator
- Long fusion outlet
- O-ring-sealed screw cap

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]
32	20	193 281 459	0.142	12	83	29	101	65	90

53 131 400

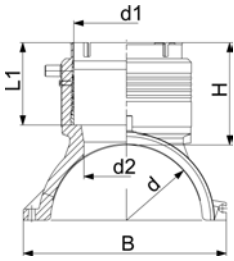


Tapping Saddle Monobloc version

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring-sealed screw cap

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]
40	20	193 131 412	0.270	16	99	33	103	70	102
40	25	193 131 413	0.272	16	99	33	103	70	102
40	32	193 131 414	0.277	16	99	33	103	70	120
50	20	193 131 422	0.260	16	104	38	103	70	102
50	25	193 131 423	0.262	16	104	38	103	70	102
50	32	193 131 424	0.270	16	104	38	103	70	120
63	20	193 131 432	0.428	25	134	44	126	70	115
63	25	193 131 433	0.431	25	134	44	126	70	115
63	32	193 131 434	0.433	25	134	44	126	70	130

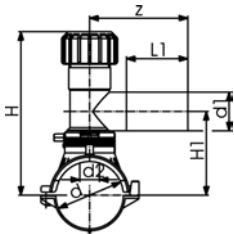
Branch Fitting Topload Type LU



- PE 100 SDR 11 (ISO S5)
- See general information for maximum allowable operating pressure
- Branch Fitting for assembling as Topload with tool 799.350.477; angle adaptors (799.350.340) for fusion cable required
- Electrofusion outlet with integrated pipe fixation
- Protected wire without medium contact
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	d1 [mm]	Code	kg	H [mm]	L [mm]	L1 [mm]	B [mm]	d2 [mm]	
280	90	701 488 150	1.180	102	260	82	243	65	
280	110	701 488 151	1.280	108	260	88	243	86	
280	125	701 488 152	1.480	129	260	99	243	86	
315 - 355	90	701 488 160	1.180	102	260	82	250	65	
315 - 355	110	701 488 161	1.280	108	260	88	250	86	
315 - 355	125	701 488 162	1.480	129	260	99	250	86	
400 - 450	90	701 485 170		102	260	82	256	65	
400 - 450	110	701 485 171		108	260	88	256	86	
400 - 450	120	701 485 172	1.840	129	260	99	256	86	
500 - 630	90	701 488 146	1.060	102	260	82	263	65	
500 - 630	110	701 488 147	1.160	108	260	88	263	86	
500 - 630	125	701 488 148	1.480	129	260	99	263	86	

53 131 400



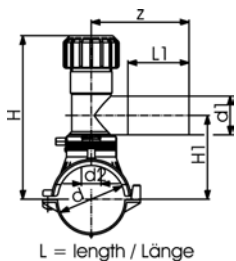
L = length / Länge

Tapping Saddle with 360° rotatable outlet

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring-sealed screw cap
- d315 - 400 mm: application is limited on pipes d355 and d400 mm. Not suitable for pipes if larger wall thickness than SDR 17 pipes.
- *Delivery without lower part for assembling as Top Load with tool no. 799.350.475; angle adaptor (799.350.340) for fusion cable required

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]	
63	20	193 131 402	0.695	32	186	108	165	71	130	
63	25	193 131 403	0.713	32	186	108	165	71	130	
63	32	193 131 404	0.715	32	186	108	165	76	130	
63	40	193 131 405	0.731	32	186	108	165	81	137	
63	63	193 131 437	1.455	32	134	112	165	100	160	
75	20	193 131 442	0.825	32	191	113	165	71	130	
75	25	193 131 443	0.839	32	191	113	165	71	130	
75	32	193 131 444	0.841	32	191	113	165	76	130	
75	40	193 131 445	0.858	32	191	113	165	81	137	
75	63	193 131 447	1.579	32	240	118	165	100	160	
90	20	193 131 452	0.791	32	199	121	165	71	130	
90	25	193 131 453	0.802	32	199	121	165	71	130	
90	32	193 131 454	0.801	32	199	121	165	76	130	
90	40	193 131 455	0.819	32	199	121	165	81	137	
90	63	193 131 457	1.541	32	248	126	165	100	160	
110	20	193 131 462	0.853	32	209	131	165	71	130	
110	25	193 131 463	0.860	32	209	131	165	71	130	
110	32	193 131 464	0.860	32	209	131	165	76	130	
110	40	193 131 465	0.877	32	209	131	165	81	137	
110	63	193 131 467	1.590	35	258	136	165	100	160	
125	20	193 131 472	0.879	32	216	138	165	71	130	
125	25	193 131 473	0.883	32	216	138	165	71	130	
125	32	193 131 474	0.889	32	216	138	165	76	130	
125	40	193 131 475	0.906	32	216	138	165	81	137	
125	63	193 131 477	1.623	35	265	143	165	100	160	

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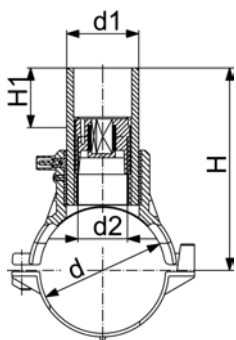
d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]
140	20	193 131 482	0.887	32	233	146	165	71	130
140	25	193 131 483	0.884	32	233	146	165	71	130
140	32	193 131 484	0.900	32	233	146	165	76	130
140	40	193 131 485	0.920	32	233	146	165	81	137
140	63	193 131 487	1.639	35	273	151	165	100	160
160	20	193 131 492	0.886	32	243	156	165	71	130
160	25	193 131 493	0.896	32	243	156	165	71	130
160	32	193 131 494	0.896	32	243	156	165	76	130
160	40	193 131 495	0.920	32	243	156	165	81	137
160	63	193 131 497	1.636	35	283	161	165	100	160
180	20	193 131 502	1.002	32	244	166	165	71	130
180	25	193 131 503	1.002	32	244	166	165	71	130
180	32	193 131 504	1.002	32	244	166	165	76	130
180	40	193 131 505	1.022	32	244	166	165	81	137
180	63	193 131 507	1.742	35	293	171	165	100	160
200	20	193 131 512	1.011	32	254	176	165	71	137
200	25	193 131 513	1.011	32	254	176	165	71	130
200	32	193 131 514	1.021	32	254	176	165	76	130
200	40	193 131 515	1.041	32	254	176	165	81	137
200	63	193 131 517	1.761	35	303	181	165	100	160
225	20	193 131 522	1.014	32	266	188	165	71	130
225	25	193 131 523	1.014	32	266	188	165	71	130
225	32	193 131 524	1.014	32	266	188	165	76	130
225	40	193 131 525	1.043	32	266	188	165	81	137
225	63	193 131 527	1.763	35	315	193	165	100	160
250	20	193 131 532	1.025	32	279	201	165	76	130
250	25	193 131 533	1.035	32	279	201	165	76	130
250	32	193 131 534	1.035	32	279	201	165	76	130
250	40	193 131 535	1.055	32	279	201	165	81	137
250	63	193 131 537	1.775	35	328	206	165	100	160
* 280	63	193 131 547	1.240	35	328	206	165	100	160
* 315-400	63	193 131 557	1.513	35	328	206	165	100	160

53 131 200

Spigot Saddle with Cutter

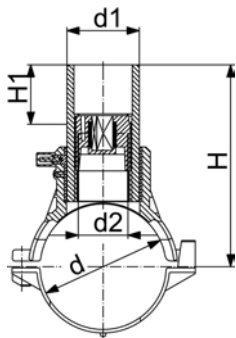


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- d315 - 400 mm: application is limited on pipes d355 and d400 mm. Not suitable for pipes if larger wall thickness than SDR 17 pipes.
- *Delivery without lower part for assembling as Top Load with tool no. 799.350.475; angle adaptor (799.350.340) for fusion cable required



d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	SW [mm]
63	32	193 131 234	0.538	19	145	50	165	13
63	63	193 131 237	1.036	32	152	50	165	17
75	32	193 131 244	0.668	19	151	50	165	13
75	63	193 131 247	1.166	32	158	50	165	17
90	32	193 131 254	0.628	19	158	50	165	13
90	63	193 131 257	1.126	32	165	50	165	17
110	32	193 131 264	0.696	19	168	50	165	13
110	63	193 131 267	1.194	32	175	50	165	17
125	32	193 131 274	0.726	19	176	50	165	13
125	63	193 131 277	1.224	32	183	50	165	17
140	32	193 131 284	0.726	19	183	50	165	13
140	63	193 131 287	1.224	32	190	50	165	17
160	32	193 131 294	0.729	19	193	50	165	13
160	63	193 131 297	1.227	32	200	50	165	17
180	32	193 131 304	0.835	19	203	50	165	13
180	63	193 131 307	1.333	32	210	50	165	17
200	32	193 131 314	0.854	19	213	50	165	13
200	63	193 131 317	1.352	32	220	50	165	17
225	32	193 131 324	0.856	19	226	50	165	13
225	63	193 131 327	1.354	32	233	50	165	17

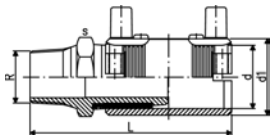
table continued next page



L = length / Länge

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	SW [mm]
250	32	193 131 334	0.868	19	238	50	165	13
250	63	193 131 337	1.366	32	245	50	165	17
* 280	63	193 131 347	0.830	35	245	50	165	17
* 315 - 400	63	193 131 357	0.830	35	245	50	165	17

20 92 07

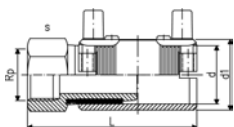


Transition Coupler PE/brass (Ms 58) Male Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit

d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
20	½	720 920 756	0.217	31	110	30
20	1	720 920 754	0.344	44	124	40
25	¾	720 920 757	0.280	36	111	35
25	1	720 920 763	0.364	44	124	40
32	½	720 920 764	0.235	44	121	30
32	¾	720 920 765	0.287	44	122	35
32	1	720 920 758	0.355	44	117	40
32	1 ¼	720 920 766	0.543	54	135	50
32	1 ½	720 920 767	0.685	60	143	60
32	2	720 920 768	1.000	81	157	70
40	1	720 920 771	0.387	54	133	40
40	1 ¼	720 920 759	0.541	54	127	50
40	1 ½	720 920 772	0.694	66	143	60
40	2	720 920 773	0.992	81	157	70
50	1	720 920 776	0.416	66	141	40
50	1 ¼	720 920 777	0.578	66	143	50
50	1 ½	720 920 760	0.670	66	135	60
50	2	720 920 778	0.994	81	157	70
63	1	720 920 781	0.460	81	151	40
63	1 ¼	720 920 782	0.626	81	153	40
63	1 ½	720 920 783	0.741	81	153	60
63	2	720 920 761	1.005	81	147	70

20 92 02

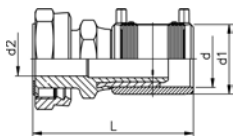


Transition Coupler PE/brass (Ms 58) Female Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit

d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
32	1	720 920 258	0.338	44	108	40
40	1 ¼	720 920 259	0.511	54	118	50
50	1 ½	720 920 260	0.744	66	126	60
63	1	720 920 281	1.280	81	138	70
63	1 ¼	720 920 282	1.230	81	138	70
63	1 ½	720 920 283	1.115	81	138	70
63	2	720 920 261	1.016	81	138	70

20 91 00

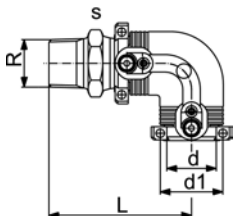


Transition Coupler PE/brass (Ms 58) with loose Nut

- PE 100 SDR 11 (ISO S5)
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Delivered as a kit. Further combinations: modular system with threaded adapter and reductions
- Incl. flat gasket for water applications (KTW / WRAS approved)

d [mm]	Rp [inch]	Code	kg	d1 [mm]	d2 [mm]	L [mm]
25	¾	720 910 007	0.240	36	15	104
25	1	720 910 017	0.315	36	16	106
32	1	720 910 008	0.342	44	20	110
32	1 ¼	720 910 018	0.460	44	22	114
32	1 ½	720 910 028	0.480	44	22	114
40	1	720 910 009	0.465	54	21	119
40	1 ¼	720 910 019	0.520	54	25	123
40	1 ½	720 910 029	0.595	54	28	123
50	1	720 910 020	0.685	66	20	128
50	1 ¼	720 910 030	0.730	66	25	133
50	1 ½	720 910 010	0.774	66	29	133
50	2	720 910 040	0.980	66	36	137
63	1	720 910 021	1.025	81	20	137
63	1 ¼	720 910 031	1.060	81	25	141
63	1 ½	720 910 041	1.070	81	29	141
63	2	720 910 011	1.235	81	36	145

20 10 07

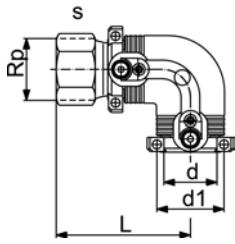


Transition Elbow 90° PE/brass (Ms 58) Male Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit

d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
20	½	720 100 756	0.240	31	96	30
25	¾	720 100 757	0.260	36	97	35
32	1	720 100 758	0.383	44	98	40
32	1 ¼	720 100 766	0.500	44	100	50
32	1 ½	720 100 767	0.562	44	100	60
40	1	720 100 771	0.528	54	107	50
40	1 ¼	720 100 759	0.584	54	109	50
40	1 ½	720 100 772	0.642	54	109	60
50	1	720 100 776	0.710	66	116	60
50	1 ¼	720 100 777	0.771	66	118	60
50	1 ½	720 100 760	0.757	66	118	60
63	1 ¼	720 100 782	1.040	81	128	70
63	1 ½	720 100 783	1.045	81	128	70
63	2	720 100 761	1.115	81	132	70

20 10 02

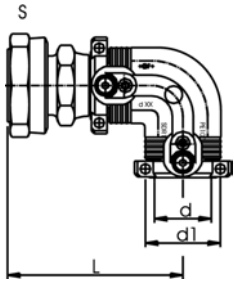


Transition Elbow 90° PE/brass (Ms 58) Female Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit

d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
32	1	720 100 258	0.365	44	89	40
40	1 ¼	720 100 259	0.556	54	100	50
50	1 ½	720 100 260	0.819	66	109	60
63	1	720 100 281	1.420	81	123	70
63	1 ¼	720 100 282	1.380	81	123	70
63	1 ½	720 100 283	1.305	81	123	70
63	2	720 100 261	1.165	81	123	70

20 10 00

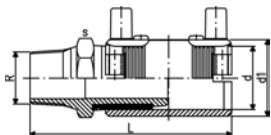


Transition Elbow 90° PE/brass (Ms 58) with loose Nut

- PE 100 SDR 11 (ISO S5)
- Gas on request / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit
- Incl. flat gasket for water applications (KTW / WRAS approved)

d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]
25	¾	720 100 007	0.260	36	90
25	1	720 100 017	0.335	36	92
32	1	720 100 008	0.370	44	91
32	1 ¼	720 100 018	0.490	44	95
40	1	720 100 009	0.505	54	101
40	1 ¼	720 100 019	0.565	54	105
40	1 ½	720 100 029	0.635	54	105
50	1	720 100 020	0.760	66	111
50	1 ½	720 100 010	0.850	66	116
50	2	720 100 040	1.060	66	120
63	1	720 100 021	1.171	81	121
63	1 ½	720 100 041	1.210	81	125
63	2	720 100 011	1.375	81	129

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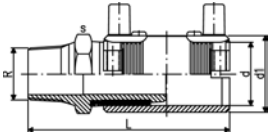


Transition Coupler PE/steel (stainless 1.4305) Male Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Delivered as a kit. Further combinations: modular system with threaded adapter and reductions

d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
20	½	724 920 756	0.210	31	110	30
25	¾	724 920 757	0.260	36	111	35
32	1	724 920 758	0.347	44	117	40
32	1 ½	724 920 767	0.330	44	125	60
40	1 ¼	724 920 759	0.519	54	127	50
40	1 ½	724 920 772	0.690	66	143	60

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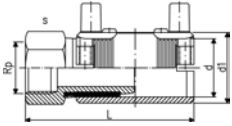
d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
50	1 ½	724 920 760	0.657	66	135	60
63	1 ½	724 920 771	0.904	81	147	70
63	2	724 920 761	0.963	81	147	70

24 92 02

Transition Coupler PE/steel (stainless 1.4305) Female Thread

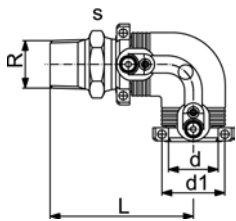


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit



d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
20	½	724 920 256	0.197	31	100	30
25	¾	724 920 257	0.253	36	101	35
32	1	724 920 258	0.340	44	108	40
40	1 ¼	724 920 259	0.505	54	118	50
50	1 ½	724 920 260	0.725	66	126	60
63	2	724 920 261	0.995	81	138	70

24 10 07

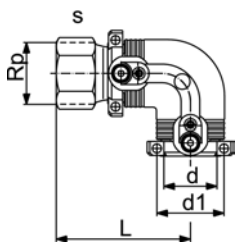


Transition Elbow 90° PE/steel (stainless 1.4305) Male Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit

d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
20	½	724 100 756	0.211	31	96	30
25	¾	724 100 757	0.230	36	97	35
32	1	724 100 758	0.370	44	98	40
40	1 ¼	724 100 759	0.560	54	109	50
40	1 ½	724 100 772	0.730	54	109	60
50	1 ½	724 100 760	0.730	66	118	60
63	1 ½	724 100 771	1.040	81	132	70
63	2	724 100 761	1.105	81	132	70

24 10 02



Transition Elbow 90° PE/steel (stainless 1.4305) Female Thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as a kit

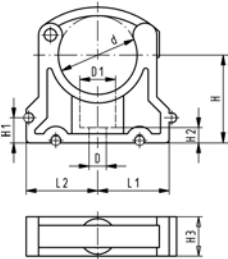
d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]
20	½	724 100 256	0.211	31	86	30
25	¾	724 100 257	0.237	36	87	35
32	1	724 100 258	0.360	44	89	40
40	1 ¼	724 100 259	0.545	54	100	50
50	1 ½	724 100 260	0.805	66	109	60
63	2	724 100 261	1.135	81	123	70

Pipe Clips

KLIP-IT pipe clip type 061H PP metric

Model:

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- **Minimum order quantity: standard packagings SP**
- d16 - d63: height designed for Ball Valve Type 546 und 543
- * d16 to d32 without bracket

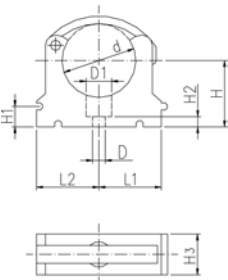


d [mm]	Code	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
* 16	167 061 035	0.006	6	11	14	17	27	10	6	16	M5
* 20	167 061 036	0.008	6	11	17	19	27	10	6	16	M5
* 25	167 061 037	0.009	6	11	19	22	30	10	6	16	M5
* 32	167 061 038	0.012	6	11	24	27	36	10	6	16	M5
40	167 061 039	0.027	7	14	34	34	44	10	7	22	M6
50	167 061 040	0.031	7	14	37	37	51	10	7	22	M6
63	167 061 041	0.054	9	17	45	45	64	10	10	25	M8

KLIP-IT Pipe Clips Type 061, PP metric

Model:

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- d16 - d63: Height designed for Ball Valve Type 546 and 543
- **Minimum order quantity: standard packagings SP**

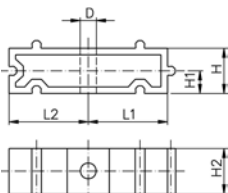


d [mm]	Code	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
* 10	167 061 003	5	8	11	14	20	10	6	12	M4
* 12	167 061 004	5	8	11	14	21	10	6	12	M5
* 16	167 061 035	6	11	14	17	27	10	6	16	M5
* 20	167 061 036	6	11	17	19	27	10	6	16	M5
* 25	167 061 037	6	11	19	22	30	10	6	16	M5
* 32	167 061 038	6	11	24	27	36	10	6	16	M5
40	167 061 039	7	14	34	34	44	10	7	22	M6
50	167 061 040	7	14	37	37	51	10	7	22	M6
63	167 061 041	9	17	45	45	64	10	10	25	M8
75	167 061 012	9	17	52	52	58	10	10	25	M8
90	167 061 013	9	17	65	65	65	10	10	28	M8
110	167 061 014	9	17	79	79	75	10	10	28	M8
125	167 061 015	9	17	88	88	90	10	10	32	M8
140	167 061 016	9	17	98	98	110	10	10	32	M8
160	167 061 017	9	17	109	109	108	10	10	32	M8

KLIP-IT spacer type 061 PP

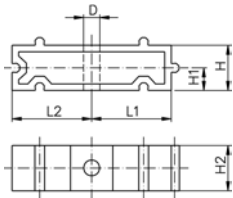
Model:

- For pipe clips Type 061/061H, PP black, UV resistant
- **Minimum order quantity: standard packaging SP**



d [mm]	Inch [inch]	Code	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
10 - 12	1/8 - 1/4	167 061 153	0.003	5	11	14	20	10	12	M4
16	3/8	167 061 155	0.006	6	14	17	20	10	16	M5
20	1/2	167 061 156	0.006	6	17	19	20	10	16	M5
25	3/4	167 061 157	0.007	6	19	22	20	10	16	M5
32	1	167 061 158	0.008	6	24	27	20	10	16	M5

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d [mm]	Inch [inch]	Code	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
40	1 1/4	167 061 159	0.016	7	34	34	20	10	22	M6
50	1 1/2	167 061 160	0.017	7	37	37	20	10	22	M6
63	2	167 061 161	0.024	9	45	45	20	10	25	M8
75	2 1/2	167 061 162	0.027	9	52	52	20	10	25	M8
90	3	167 061 163	0.040	9	65	65	20	10	28	M8
110	4	167 061 164	0.048	9	79	79	20	10	28	M8
125	4 1/2	167 061 165	0.059	9	88	88	20	10	32	M8
140	5	167 061 166	0.065	9	98	98	20	10	32	M8
160	6	167 061 167	0.074	9	109	109	20	10	32	M8

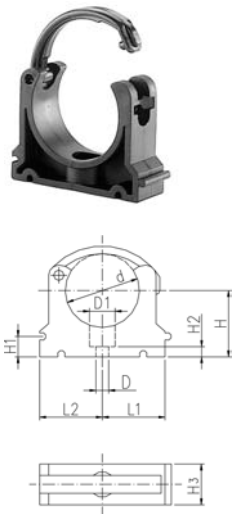
KLIP-IT pipe clip type 061 PE metric

Model:

- Material: Clip PE and safety clip PP black, bolts galvanized
- **Minimum order quantity: standard packaging SP**
- Height not designed for ball valve 546 and 543. Please use spacer 73 06 11.



d [mm]	Code	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
* 10	173 061 003	0.003	5	8	11	14	20	10	6	12	M4
* 12	173 061 004	0.006	5	8	11	14	21	10	6	12	M5
* 16	173 061 005	0.007	6	11	14	17	23	10	6	16	M5
* 20	173 061 006	0.008	6	11	17	19	25	10	6	16	M5
* 25	173 061 007	0.009	6	11	19	22	28	10	6	16	M5
* 32	173 061 008	0.012	6	11	24	27	31	10	6	16	M5
40	173 061 009	0.022	7	14	34	34	35	10	7	22	M6
50	173 061 010	0.030	7	14	37	37	40	10	7	22	M6
63	173 061 011	0.044	9	17	45	45	52	10	10	25	M8
75	173 061 012	0.062	9	17	52	52	58	10	10	25	M8
90	173 061 013	0.090	9	17	65	65	65	10	10	28	M8
110	173 061 014	0.114	9	17	79	79	75	10	10	28	M8
125	173 061 015	0.174	9	17	88	88	90	10	10	32	M8
140	173 061 016	0.217	9	17	98	98	110	10	10	32	M8
160	173 061 017	0.237	9	17	109	109	108	10	10	32	M8



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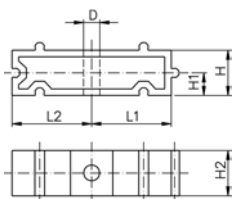
KLIP-IT spacer type 061 PE

Model:

- For pipe clips Type 061, PE black, UV resistant
- **Minimum order quantity: standard packaging SP**



d [mm]	Inch	Code	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
16	1/8-1/4	173 061 153	0.003	5	11	14	20	10	12	M4
20	3/8	173 061 155	0.005	6	14	17	20	10	16	M5
25	1/2	173 061 156	0.006	6	17	19	20	10	16	M5
32	3/4	173 061 157	0.007	6	19	22	20	10	16	M5
40	1	173 061 158	0.008	6	24	27	20	10	16	M5
40	1 1/4	173 061 159	0.016	7	34	34	20	10	22	M6
50	1 1/2	173 061 160	0.017	7	37	37	20	10	22	M6
63	2	173 061 161	0.025	9	45	45	20	10	25	M8
75	2 1/2	173 061 162	0.027	9	52	52	20	10	25	M8
90	3	173 061 163	0.040	9	65	65	20	10	28	M8
110	4	173 061 164	0.048	9	79	79	20	10	28	M8
125	4 1/2	173 061 165	0.059	9	88	88	20	10	32	M8
140	5	173 061 166	0.065	9	98	98	20	10	32	M8
160	6	173 061 167	0.074	9	109	109	20	10	32	M8

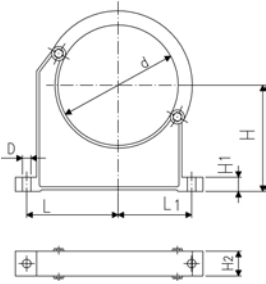


Pipe clip type 060 PP metric






Model:

- Material: Clip and safety clip PP black, UV resistant, bolts galvanized
- Accidental opening of the safety clip is not possible
- **Minimum order quantity: standard packaging SP or gross packaging GP**
- Clip and safety clip are not assembled in the packaging.
- Pipes with flanges can be installed directly



d [mm]	Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
90	167 060 038	0.163	9	89	71	105	15	33	M 8
110	167 060 039	0.179	9	94	80	115	15	33	M 8
125	167 060 040	0.300	11	116	91	130	20	35	M10
140	167 060 041	0.309	11	121	98	130	20	35	M10
160	167 060 042	0.348	11	131	107	148	20	35	M10
180	167 060 043	0.378	11	143	115	163	20	35	M10
200	167 060 019	0.582	13	152	120	175	25	39	M12
225	167 060 020	0.612	13	165	132	175	25	39	M12
250	167 060 021	0.698	13	183	143	200	25	39	M12
280	167 060 022	0.722	13	198	156	200	25	39	M12
315	167 060 023	0.842	13	219	172	225	25	39	M12
355	167 060 024	1.250	17	275	209	258	30	50	M16
400	167 060 025	1.450	17	300	228	288	30	50	M16

Fusion Jointing Machines

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Manual Butt and Socket Fusion Tools

SSE Butt fusion tool



- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Heating element diameter 120 mm, 200 mm and 300 mm
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control / E = electronic temperature control

d [mm]	Type	Performance	Code	kg
110	SSE 120 T	115 V/400 W	790 105 136	2.300
110	SSE 120 E	115 V/400 W	790 105 141	2.400
180	SSE 200 T	230 V/800 W	790 105 052	3.000
180	SSE 200 E	230 V/800 W	790 105 059	3.000
180	SSE 200 T	115 V/800 W	790 105 137	3.000
180	SSE 200 E	115 V/800 W	790 105 142	3.000
280	SSE 300 T	230 V/1500 W	790 105 053	5.540
280	SSE 300 E	230 V/1500 W	790 105 060	5.640
280	SSE 300 T	115 V/1500 W	790 105 138	5.540
280	SSE 300 E	115 V/1500 W	790 105 143	5.640

SSE 200 -Set- Butt fusion tool



- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Available as a complete set in a practical metal case
- Heating element-diameter 200 mm
- Table clamp
- T = thermostatic temperature control / E = electronic temperature control

d [mm]	Type	Performance	Code	kg
180	SSE 200 T	230 V/800 W	790 105 054	7.815
180	SSE 200 E	230 V/800 W	790 105 061	8.800
180	SSE 200 T	115 V/800 W	790 105 139	7.400
180	SSE 200 E	115 V/800 W	790 105 144	7.400

SSE 300 -Set- Butt fusion tool



- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Available as a complete set in a practical metal case
- Heating element-diameter 300 mm
- Table clamp
- T = thermostatic temperature control / E = electronic temperature control

d [mm]	Type	Performance	Code	kg
280	SSE 300 T	230 V/1500 W	790 105 055	11.725
280	SSE 300 E	230 V/1500 W	790 105 062	11.000
280	SSE 300 T	115 V/1500 W	790 105 140	11.000
280	SSE 300 E	115 V/1500 W	790 105 145	11.000



MSE 63/MSE 110 Socket fusion tools

- For fusion jointing of PP, PE and PVDF pipes and fittings
- Size range d 16-110 mm
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control / E = electronic temperature control

d-d [mm]	Type	Performance	Code	kg	
16 - 63	MSE 63 T	230 V/800 W	790 105 081	1.760	
16 - 63	MSE 63 E	230 V/800 W	790 105 082	2.000	
16 - 63	MSE 63 T	115 V/800 W	790 105 096	2.075	
16 - 63	MSE 63 E	115 V/800 W	790 105 097	2.145	
16 - 110	MSE 110 T	230 V/1500 W	790 105 083	3.550	
16 - 110	MSE 110 E	230 V/1500 W	790 105 084	3.200	
16 - 110	MSE 110 T	115 V/1500 W	790 105 126	3.200	
16 - 110	MSE 110 E	115 V/1500 W	790 105 127	3.200	



MSE 63/MSE 110 - Set - Socket fusion tools

- For fusion jointing of PP, PE and PVDF pipes and fittings
- Size range d 16-110 mm
- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Heating bushes and spigots
- Available as a complete set in a practical metal case
- Table clamp
- Floor stand for MSE 63
- Allen screws and key
- T = thermostatic temperature control / E = electronic temperature control

d-d [mm]	Type	Performance	Code	kg	
16 - 63	MSE 63 T	230 V/800	790 105 085	8.600	
16 - 63	MSE 63 E	230 V/800	790 105 086	10.180	
16 - 63	MSE 63 T	115 V/800	790 105 098	8.600	
16 - 63	MSE 63 E	115 V/800	790 105 099	8.600	
16 - 110	MSE 110 T	230 V/1500	790 105 087	17.700	
16 - 110	MSE 110 E	230 V/1500	790 105 088	17.680	
16 - 110	MSE 110 T	115 V/1500	790 105 128	14.880	
16 - 110	MSE 110 E	115 V/1500	790 105 129	15.600	

SG 125 Socket fusion machine

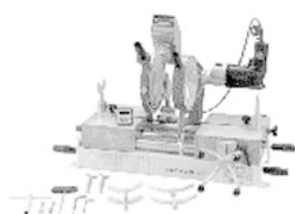
For fusion jointing of PP, PE, PB and PVDF pipes and fittings



- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- Dimension 20 - 125 mm
- **Base machine**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- Fast selection of insertion depth according to the pipe dimension
- **Heater**
- With electronic temperature control
- High temperature accuracy over the entire heating surface
- **Additional standard equipment on the basic model**
- Universal, left and right prismatic clamping devices, complete, for clamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- V-shaped pipe support d 20 - 125 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg	
20 - 125	230 V/1500 W	790 310 034	65.000	
20 - 125	115 V/1500 W	790 310 036	65.000	

SG 160 Combined Butt and Socket Fusion Machine



for fusion jointing PP, PE and PVDF pipes and fittings size range for butt fusion d 32 - 160

Mobile, very compact and universal plastic fusion machine for use in the workshop and on job sites.

Butt fusion d 32 - 160 mm, all pressure ratings up to PE/PP SDR 11; PVDF SDR 21.

Socket fusion d 16 - 110 mm

Base machine

- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- All clamping possibilities for base clamping plates, pipe supports, back stop and prismatic clamping devices.

Planer

- planing device made of light cast aluminium
- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends 620 W
- integrated pick up for easy mounting of calibration tools for machining of pipe ends in socket fusion

Heater

- high-performance and precision heater with electronic temperature control 1500 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE fabric (Teflon)

Additional standard equipment on the basic model

- V-shaped pipe supports d 16 - 160 mm for fittings
- timer to clock fusion times
- tool set specified to machine
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg
16 - 160	230 V	790 103 031	44.900
16 - 160	115 V	790 103 033	45.000

Special transport crate



Code	kg
790 103 099	108.000



Base clamping plates

- In order to improve the quality of the fusion joint, and for reliable clamping of long pipes, we recommend using the maximum number of clamping devices.
- For welding of long pipes we recommend to use the outer left and outer right base clamping plates as well.
- L = left
- R = right

d [mm]	Type	Code	kg
160	L	790 103 010	2.503
160	R	790 103 011	2.510



Inserts, left/right

- For base clamping plate or bracket
- Left or right

d [mm]	Code	kg
32	790 103 019	0.315
40	790 103 020	0.310
50	790 103 021	0.302
63	790 103 022	0.277
75	790 103 023	0.250
90	790 103 024	0.224
110	790 103 025	0.178
125	790 103 026	0.132
140	790 103 027	0.079



Clamping bracket, left/right

- For base clamping plate or bracket
- L = left
- R = right

* Threaded clamping bracket, for mounting inserts d 32 - 140 mm. An additional insert must be used instead of clamping brackets d 32 - 140 mm, i.e. twice the number of inserts listed must be ordered.

d [mm]	Type	Code	kg
32	L	790 103 039	0.530
40	L	790 103 040	0.530
50	L	790 103 041	0.530
63	L	790 103 042	0.530
75	L	790 103 043	0.530
90	L	790 103 044	0.580
110	L	790 103 045	0.580
125	L	790 103 046	0.606
140	L	790 103 047	0.650
* 160	L	790 103 048	0.669
32	R	790 103 059	0.530
40	R	790 103 060	0.530
50	R	790 103 061	0.530
63	R	790 103 062	0.530
75	R	790 103 063	0.530
90	R	790 103 064	0.580
110	R	790 103 065	0.590
125	R	790 103 066	0.605
140	R	790 103 067	0.530
* 160	R	790 103 068	0.650



Prismatic clamping device

- Prismatic clamping device for pick up of clamping jaws for exact alignment of fusion components
- L = left
- R = right

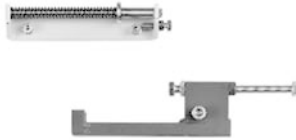
*Horizontal adjustable

Type	Code	kg	
L	790 103 080	6.112	
R	790 103 081	6.118	



Clamping jaws

d	Code	kg	
16-32 / 90-110	790 103 085	0.310	
30-50 / 50-90	790 103 086	0.330	



Depth stop, complete

Code	kg	
790 103 090	0.610	



Heating spigots and bushes

d [mm]	Code	kg	
16	790 101 086	0.310	
20	790 101 087	0.315	
25	790 101 088	0.313	
32	790 101 089	0.316	
40	790 101 090	0.329	
50	790 101 091	0.475	
63	790 101 092	0.858	
75	790 101 093	1.157	
90	790 101 094	1.697	
110	790 101 095	2.200	



Stiffener plate

d [mm]	Code	kg	
110	790 101 098	0.264	



Calibration tool

- For mechanical, standardised calibration of pipe ends in PE, PP and PVDF (to be used with planer)
- easy and time-saving removal of oxide film
- Consistent peeling quality over the entire pipe circumference

d [mm]	Code	kg	
20	790 103 160	0.950	
25	790 103 161	0.950	
32	790 103 162	0.950	
40	790 103 163	0.930	
50	790 103 164	0.950	
63	790 103 165	1.000	
75	790 103 166	1.150	
90	790 103 167	1.250	
110	790 103 168	1.344	

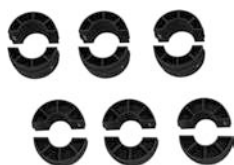
MC 110 Butt Fusion Machine

Machine MC 110, complete with electric planer



- Portable butt fusion machine for use in the workshop and on job sites. For fusion jointing of PP and PE pipes and fittings as well as prefabrication of segments in the size range d 20 - 110 mm and up to SDR 11.
- Machine MC 110 complete includes: machine mounting, basic machine, 2 base clamping plates (wide), base clamping plate (left narrow), planer, heater thermostatic controlled, table clamp and transport crate.
- Including transport packaging, without accessories

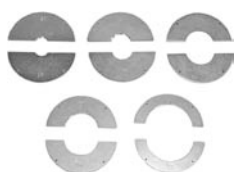
d-d [mm]	Performance	Code	kg
20 - 110	230 V/ 800 W	790 109 303	31.000
20 - 110	115 V/ 800 W	790 109 321	31.000



Reduction clamping inserts, wide

- 20 - 90 mm
- Each code number defines 1 half shell. Per wide base clamping plate 2 reduction half-shells are needed.

d [mm]	Code	kg
25	790 109 327	0.150
32	790 109 328	0.150
40	790 109 329	0.145
50	790 109 330	0.129
56	790 109 342	0.150
63	790 109 331	0.125
75	790 109 332	0.113
90	790 109 333	0.105



Reduction clamping inserts, narrow

- Each code number defines 1 half shell. Per wide base clamping plate 2 reduction half-shells are needed.

d [mm]	Code	kg
25	790 109 335	0.075
32	790 109 336	0.070
40	790 109 337	0.125
50	790 109 338	0.124
56	790 109 343	0.114
63	790 109 339	0.110
75	790 109 340	0.100
90	790 109 341	0.100

PSO 701 Butt Fusion Machine

For fusion jointing of PP and PE pipes and fittings, size range d 40 - 160 mm



- Professional butt fusion machine capable to weld pipes d 160mm up to SDR 11. The wooden box is usable as working bench as well as for transportation.
- Pressure adjustment via direct load transfer (max. force 100kp)
- Planer and heating element could be swivelled in and out
- High performance heating element thermostatic controlled (PTFE coated)
- The heating element can be used as manual fusion tool
- **V-shaped pipe support** with inserts d 40 - 140 mm
- **Reduction clamping inserts** d 40 - 140 mm
- **Base clamping plates** right and left, d 160 mm
- Machine specific tool set

d-d [mm]	Performance	Code	kg	
40 - 160	230 V/1360 W	790 301 000	107.000	

SG 315 Butt Fusion Machine

SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings



The industrial butt fusion machine for pressure piping systems. Extremely sturdy design use in the workshop and on job sites.

Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

Base machine

- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- fusion pressure is maintained with a user friendly torque limiter
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- optional outer, horizontally removeable clamping devices available

Planer

- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends, 1100 W
- for your personal safety, a safety switch has been integrated to prevent unintentional start-up in the working position

Heater

- high-performance and precision heater with electronic temperature control 1700 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE coating
- with digital temperature indicator

Additional standard equipment included in the base model

- inner left and right clamping plates, d 315 mm, for pick up of reduction clamping inserts d 90 - 280 mm
- pipe supports d 315 mm for support of fittings
- timer to clock fusion times
- tool set specified to machine
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg	
90 - 315	115 V	790 130 002	128.000	



SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems. The S-version (S = segment) additionally allows prefabrication of segments. Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

Base machine

- integrated swivel tables for equalization of wall offset transverse to axial direction, for segment fusion up to 30°
- optional outer, horizontally removeable clamping devices available
- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- fusion pressure is maintained with a user friendly torque limiter
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine

Planer

- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends, 1100 W
- for your personal safety, a safety switch has been integrated to prevent unintentional start-up in the working position

Heater

- high-performance and precision heater with electronic temperature control 1700 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE coating
- with digital temperature indicator

Additional standard equipment included in the base model

- inner left and right clamping plates, d 315 mm, for pick up of reduction clamping inserts d 90 - 280 mm
- pipe supports d 315 mm for support of fittings
- timer to clock fusion times
- tool set specified to machine
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg
90 - 315	230 V	790 130 003	150.000
90 - 315	115 V	790 130 004	143.000



SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems. Extremely sturdy design use in the workshop and on job sites.

Equipped with a load cell and a digital display of the fusion force.

Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11;
PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

Base machine

- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- fusion pressure is maintained with a user friendly torque limiter
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- digital display
- optional outer, horizontally removeable clamping devices available

Planer

- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends, 1100 W
- for your personal safety, a safety switch has been integrated to prevent unintentional start-up in the working position

Heater

- high-performance and precision heater with electronic temperature control 1700 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE coating
- with digital temperature indicator

Additional standard equipment included in the base model

- inner left and right clamping plates, d 315 mm, for pick up of reduction clamping inserts d 90 - 280 mm
- pipe supports d 315 mm for support of fittings
- timer to clock fusion times
- tool set specified to machine
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg
90 - 315	230 V	790 130 031	150.000
90 - 315	115 V	790 130 032	128.000



SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems. The S-version (S = segment) additionally allows prefabrication of segments. Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

Base machine

- integrated swivel tables for equalization of wall offset transverse to axial direction, for segment fusion up to 30°
- optional outer, horizontally removeable clamping devices available
- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- fusion pressure is maintained with a user friendly torque limiter
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- load cell
- digital display

Planer

- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends, 1100 W
- for your personal safety, a safety switch has been integrated to prevent unintentional start-up in the working position

Heater

- high-performance and precision heater with electronic temperature control 1700 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE coating
- with digital temperature indicator

Additional standard equipment included in the base model

- inner left and right clamping plates, d 315 mm, for pick up of reduction clamping inserts d 90 - 280 mm
- pipe supports d 315 mm for support of fittings
- timer to clock fusion times
- tool set specified to machine
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg
90 - 315	230 V	790 130 033	143.000
90 - 315	115 V	790 130 034	145.000



Reduction clamping inserts, narrow

- d 90 - 280 mm
- Each code number represents 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	Code	kg	
90	790 112 098	0.995	
110	790 112 099	1.285	
125	790 112 100	1.245	
140	790 112 101	1.205	
160	790 112 102	1.135	
180	790 112 103	1.010	
200	790 112 104	0.950	
225	790 112 105	0.865	
250	790 112 106	0.770	
280	790 112 107	0.560	

IR Plus Fusion Jointing Machines

IR-63 Plus Fully-Equipped Machine



Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100 in dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater assembly (1 pcs.)
- Remote weld device (1 pcs.)
- Facing tool (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-63 mm (8 pcs. per dimension)
- End caps PE d 20-63 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Extension cable for remote weld device (1 pcs.)
- Extension cable for heater (1 pcs.)
- Extension cable for facing tool (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon key 3 mm (1 pcs.)
- Hexagon key 4 mm (1 pcs.)
- Heater protection shield (1 pcs.)
- Clamping unit extension (8 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Screw driver, Size 0 (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	790 131 005	52.000	

IR-110 Plus Fully-Equipped Machine



Model:

- Fully-equipped fusion jointing machine for welding SYGEF® Standard, SYGEF® Plus, PROGEF® Standard, PROGEF® Natural, PROGEF® Plus, PE 100 (PFA/ECTFE on request) in dimensions d 20-110 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE
- Machine housing complete (1 pcs.)
- Heater and facing tool assembly (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-90 mm (8 pcs. per dimension)
- End caps PE d 20-110 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon keys 4 mm (1 pcs.), 5 mm (1 pcs.), 6 mm (1 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 110	790 132 001	75.000	



IR-225 Plus Fully-Equipped Machine with HP Working Table (HP = High Purity)

Model:

- Fully-equipped fusion jointing machine for welding SYGEF Standard, SYGEF Plus, PROGEF Standard, PROGEF Natural, PROGEF Plus, PE 100 in dimensions d 63-225 mm, 2 USB interfaces, monochrome display with icons and 12 languages.
- 1-phase AC (50/60 Hz) 230 V L/N/PE or 3-phase AC (50/60 Hz) 400 V/230 VL1/L2/L3/N/PE
- Machine base (1 pcs.)
- Facing tool (1 pcs.)
- Heater assembly (1 pcs.)
- Working table, HP (1 pcs.)
- Movable clamping units (1 pcs.)
- Clamping inserts d 63-225 mm (8 pcs. per dimension)
- End caps PE d 63-225 mm (4 pcs. per dimension)
- Transportation lock (1 pcs.)
- Pipe stop (1 pcs.)
- Hexagon key 5 mm (1 pcs.)
- Hexagon key 6 mm (1 pcs.)
- Combination ring /open-jaw wrench 13 mm (1 pcs.)
- Cleaning brush (1 pcs.)
- Connecting cable 400 V - 230 V (1 pcs.)
- Ball for lever (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
63 - 225	790 133 009	453.000	

BCF® Plus Plastic Fusion Jointing Machine

BCF® Plus fully equipped machine d 20 - 63 mm



Fully-equipped machine for bead and crevice free jointing of SYGEF® Standard, SYGEF® Plus, PROGEF® Natural of the dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.

Supply:

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

Delivery includes:

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-63 mm (6 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	790 121 002	153.000	



BCF® Plus Bladder

- Only suitable for welding PROGEF® Natural). **Blue bladder head!**

d [mm]	Code	kg	Pieces	
20	790 122 091	0.038	1	
25	790 122 092	0.044	1	
32	790 122 093	0.062	1	
40	790 122 094	0.082	1	
50	790 122 095	0.131	1	
63	790 122 096	0.168	1	

Electrofusion Units and Accessories

MSA Plus 400 Traceability Electrofusion Unit with USB interfaces



NEW, environmentally friendly manufactured Electrofusion unit in accordance with EU directive 2002/95/EU (RoHS).

Professional Electrofusion unit for traceability of piping system components from raw material to completed Electrofusion joint (in accordance with ISO 12176). The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is equipped with compact flash memory card (exchangeable data carrier) and either a barcode reader pen or barcode scanner. The unit is robust, light and easy to use. The menu has up to 27 different languages. Scope of delivery includes: 1 transport case, 1 USB memory stick, 1 pair of angle adapter clips 4.0 mm, operating instructions, configuration card and Software MSA WIN-WELD.

For printer or PC communication, the USB cable (799350619) is required.

Technical Data

Ambient temperature	-10 °C to +45 °C
Mains voltage	180 V - 264 V AC
Mains frequency	45Hz - 65 Hz
Fusion voltage	8 - 42 (48) V AC
Fusion current	max. 80 A
Power	max. 3500 W
Protection	1 / IP 65
Interfaces	USB (type A) for printer communication and to load software updates USB (type B) for PC communication
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	284 x 440 x 195 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LCD graphic, background light, contrast adjustment
Size display (WxH)	132 x 39 mm
Type size	8 mm
Languages	Brasilian, Bulgarian, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Korean, Latvian, Lithuanian, Macedonian, Malaysian, Norwegian, Polish, Portuguese, Rumanian, Russian, Slovakian, Slovenian, Spanish, Swedish, Turkish
Warranty	24 months

Type	Code	kg	Description
MSA Plus 400	799 350 580	16.800	barcode reader pen, transport case
MSA Plus 400	799 350 581	16.800	barcode scanner, transport case
MSA Plus 400	799 350 585	16.800	CH power plug with barcode reader pen, transport case



MSA Plus 350 Record Electrofusion Unit with USB interfaces

NEW, environmentally friendly manufactured Electrofusion unit in accordance with EU directive 2002/95/EU (RoHS).

Professional Electrofusion unit for recording jointing data of Electrofusion components as a basis for electronic joint recording. The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is equipped with either a barcode reader pen or with barcode scanner. The unit is robust, light and easy to use. The menu has up to 27 different languages. Scope of delivery includes: transport box, 1 USB memory stick, 1 pair of angle adapter clips 4.0 mm, operating instructions, configuration card and Software MSA WIN-WELD.

To read out the fusion protocols, either the USB cable (799 350 619) or the USB memory stick (799 350 622) is required.

Technical Data

Ambient temperature	-10 °C to +45 °C
Mains voltage	180 V - 264 V AC
Mains frequency	45Hz - 65 Hz
Fusion voltage	8 - 42 (48) V AC
Fusion current	max. 80 A
Power	max. 3500 W
Protection	1 / IP 65
Interfaces	USB (type A) for printer communication and to load software updates USB (type B) for PC communication
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	284 x 440 x 195 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LCD graphic, background light, contrast adjustment
Size display (WxH)	132 x 39 mm
Type size	8 mm
Languages	Brasilian, Bulgarian, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Korean, Latvian, Lithuanian, Macedonian, Malaysian, Norwegian, Polish, Portuguese, Rumanian, Russian, Slovakian, Slovenian, Spanish, Swedish, Turkish
Warranty	24 months

Type	Code	kg	Description
MSA Plus 350	799 350 570	16.800	barcode reader pen, transport case
MSA Plus 350	799 350 571	16.800	barcode scanner, transport case
MSA Plus 350	799 350 575	16.800	CH Power plug, with barcode reader, transport case



MSA Plus 300 Automatic Electrofusion Unit with USB interfaces

NEW, environmentally friendly manufactured Electrofusion unit in accordance with EU directive 2002/95/EU (RoHS).

Automatic Electrofusion unit with barcode reader pen, optional with barcode scanner. The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is robust, light and easy to use. The menu has up to 27 different languages. Scope of delivery includes: transport box, 1 pair of angle adapter clips 4.0 mm, operating instructions and configuration card.

To load software updates the USB memory stick (799 350 622) is required.

Technical Data

Ambient temperature	-10 °C to +45 °C
Mains voltage	180 V - 264 V AC
Mains frequency	45Hz - 65 Hz
Fusion voltage	8 - 42 (48) V AC
Fusion current	max. 80 A
Power	max. 3500 W
Protection	1 / IP 65
Interfaces	USB (type A) to load software updates USB (type B) for PC communication
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	284 x 440 x 195 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LCD graphic, background light, contrast adjustment
Size display (WxH)	132 x 39 mm
Type size	8 mm
Languages	Brasilian, Bulgarian, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Korean, Latvian, Lithuanian, Macedonian, Malaysian, Norwegian, Polish, Portuguese, Rumanian, Russian, Slovakian, Slovenian, Spanish, Swedish, Turkish
Warranty	24 months

Type	Code	kg	Description
MSA Plus 300	799 350 560	16.800	barcode reader pen, transport case
MSA Plus 300	799 350 561	16.800	barcode scanner, transport case
MSA Plus 300	799 350 565	16.800	CH Power plug, with barcode reader pen, transport case

Adapter



- Adapters for Electrofusion units with 4 mm connectors.
- Compatible with electrofusion units MSA 210-230, MSA 250-400 and MSA Plus 250-400.

Type	Code	kg	Description
4,0 mm	799 350 340	0.055	Angle adapter, black
4,7 mm	799 350 341	0.055	Angle adapter, grey
4,0 mm	799 350 461	0.055	Adapter, black
4,7 mm	799 350 462	0.055	Adapter, white



Rotary Peeler RS

This innovative Rotary Peeler RS is designed for universal peeling at the pipe end for electrofusion couplings, tees and elbows and as well as for electrofusion saddles. Suitable for peeling PE80, PE100, PEX and PP pipes.

Features and your advantage:

Spring loaded peeling blade:Peeling quality independent of pipe ovality or tolerances

Pivoted mounted peeling blade:To compensate the shape of coiled pipe

Optimized cutting geometry:Defined chip thickness with cutting width overlap

One tool per dimension:Minimized swivel radius for peeling in narrow locations

Peeling length:No limitation of peeling length

Guidance rolls:3-point-support for dimensional optimized cutting feed

Time saving:Tool is always ready for use, it can be used for the next peeling without having to set the peeling blade back in its origin position

Your advantage:Time saving and highest repeatable peeling quality at smallest rotation radius. No operator errors possible when changing dimension

Included:1 x Rotary Peeler RS, Transport case, Operating manual, Spare parts list

Article	d [mm]	Code	kg
RS 40	40	790 136 001	2.096
RS 50	50	790 136 002	1.250
RS 63	63	790 136 003	2.038
RS 75	75	790 136 004	1.450
RS 90	90	790 136 005	1.450
RS 110	110	790 136 006	1.450
RS 125	125	790 136 007	1.650
RS 140	140	790 136 008	1.650
RS 160	160	790 136 009	1.650
RS 180	180	790 136 010	1.850
RS 200	200	790 136 011	1.850
RS 225	225	790 136 012	1.850
RS 250	250	790 136 013	2.150
RS 280	280	790 136 014	2.150
RS 315	315	790 136 015	2.150

9 300 725



Peeling Tool PT 1 E

- The rotating Peeling Tool PT 1 E is suitable for preparing pipe ends with diameters d 20 - 90 mm (when installing Electrofusion couplers and fittings). The tool ensures a constant peeling quality on the complete peeling surface and is suitable for PE80, PE100 and PEX.
- Scope of delivery: 1 basic tool in a plastic carrying case, without pipe inserts. The case has sufficient space for approximately 6 pipe inserts.

d-d [mm]	Code	kg	Description
20 - 90	799 150 382	3.400	Basic Tool PT 1 E

9 300 725

Pipe Inserts for Peeling Tool PT 1 E



d [mm]	e [mm]	Code	kg	Description
20	1.9	799 300 739	0.220	Pipe Insert SDR 11
20	3.0	799 300 741	0.220	Pipe Insert SDR 7
25	2.3	799 300 740	0.230	Pipe Insert SDR 11
25	3.0	799 300 742	0.230	Pipe Insert SDR 9
32	3.0	799 300 743	0.230	Pipe Insert SDR 11
40	3.7	799 300 744	0.230	Pipe Insert SDR 11
50	4.6	799 300 745	0.350	Pipe Insert SDR 11
63	3.8	799 300 725	0.475	Pipe Insert SDR 17
63	5.8	799 300 746	0.475	Pipe Insert SDR 11
75	4.5	799 300 727	0.601	Pipe Insert SDR 17
75	6.9	799 300 747	0.601	Pipe Insert SDR 11
90	5.4	799 300 748	0.834	Pipe Insert SDR 17
90	8.2	799 300 749	0.220	Pipe Insert SDR 11

9 300 750



Peeling Tool PT 2

- The rotating Peeling Tools PT 2 are suitable for preparing pipe ends (when installing Electrofusion couplers and fittings). The tool ensures a constant peeling quality on the complete peeling surface and is suitable for PE80, PE100 and PEX pipes.
- Scope of delivery: 1 tool (size 1, 2 or 3) in a case (size 1 in aluminium, size 2 and 3 in plastic).

d-d [mm]	Code	kg	Description
90 - 250	799 300 753	5.100	Size 1, peeling length 140 mm
110 - 400	799 300 755	7.320	Size 2, peeling length 150 mm
110 - 500	799 300 756	11.000	Size 3, peeling length 175 mm

9 300 700



Peeling Tool PT 4

- The easy-to-use peeling tools PT 4 are suitable for preparing pipe ends (when installing Electrofusion couplers and fittings). The tools ensure a constant peeling quality on the whole peeled area and are suitable for PE80 and PE100 pipes. There is no tool service arrangement for the PT 4.
- Scope of delivery: 1 tool with exchangeable blade (4 cutting surfaces).

e [mm]	d [mm]	Code	kg	Description
1.9	20	799 300 704	0.271	Pipe Insert SDR 11
3.0	20	799 300 705	0.255	Pipe Insert SDR 7
2.3	25	799 300 706	0.308	Pipe Insert SDR 11
3.0	25	799 300 707	0.290	Pipe Insert SDR 9
3.0	32	799 300 708	0.340	Pipe Insert SDR 11
3.7	40	799 300 709	0.380	Pipe Insert SDR 11
4.6	50	799 300 710	0.436	Pipe Insert SDR 11
5.8	63	799 300 711	0.540	Pipe Insert SDR 11

9 301 475



Double Clamp

- The user-friendly Double Clamps are suitable for coupler connections. They are quickly and easily put into position and prevent pullout and pipe movements during the fusion time and cooling time.
- Scope of delivery: 1 tool consisting of 1 beam (compact), 2 V-clamps complete with ratchet and belt.

d-d [mm]	Code	kg
63 - 125	799 301 484	2.795
110 - 225	799 301 486	10.000
225 - 500	799 301 488	15.000



9 301 450



Quadruple Clamp

- The professional Quadruple Clamps are suitable for coupler connections. They are quickly and easily put into position and ensure a stress-free fusion. They prevent pull-out and pipe movements during the fusion and cooling times.
- Recommended for difficult site conditions with large installation-induced stresses.
- Scope of delivery: 1 tool consisting of 1 beam (long), 4 V-clamps complete with ratchet and belt.

d-d [mm]	Code	kg	
63 - 125	799 301 459	6.900	
110 - 225	799 301 461	19.000	
225 - 500	799 301 463	28.500	

9 301 525



Twin Clamp

- The easy-to-use Twin Clamp is suitable for coupler connections on straight or coiled pipe. The clamps prevent pullout and pipe movements during the fusion and cooling time.
- Scope of delivery: 1 complete tool.

d [mm]	Code	kg	
20	799 301 536	0.498	
25	799 301 537	0.471	
32	799 301 538	0.756	
40	799 301 539	0.876	
50	799 301 540	1.167	
63	799 301 541	1.438	

9 301 575



Multi Clamp

- This tool is quick and easy to use and is suitable for straight forward connections to straight lengths of pipe or saddle branch outlets with electrofusion couplers.
- Scope of delivery: 1 tool without accessories.

d-d [mm]	Code	kg	
20 - 63	799 301 575	1.409	

9 301 575



Inserts for Multi Clamp

d-d [mm]	Code	kg	Description	
25 - 20	799 150 385	0.806	Inserts, Sets	
32 - 20	799 150 386	0.520	Inserts, Sets	
32 - 25	799 150 387	0.520	Inserts, Sets	
40 - 32	799 150 388	0.520	Inserts, Sets	
50 - 40	799 150 389	0.520	Inserts, Sets	
63 - 32	799 150 390	0.520	Inserts, Sets	
63 - 40	799 150 391	0.520	Inserts, Sets	
63 - 50	799 150 392	0.520	Inserts, Sets	



Clamping device Topload 315

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm.
- Scope of delivery: 1 base mounting clamp, 1 bracket, 2 clamping screws, 2 ratchet scraps, 1 transport box

d-d [mm]	Code	kg	
280 - 400	799 350 475	25.000	



Clamping device Topload 400

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm.
- Scope of delivery: 1 base mounting clamp, 1 bracket, 2 clamping screws, 2 ratchet scraps, 1 transport box

d-d [mm]	Code	kg	
280 - 400	799 350 475	25.000	



Clamping device Topload 630

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm and branch fittings for dimensions d 280 mm – 630 mm.
- Scope of delivery: 1 base mounting clamp, 1 clamping attachment, 1 bracket, 2 clamping screws, 2 ratchet scraps, 1 transport box

d-d [mm]	Code	kg	
280 - 630	799 350 477	35.000	



Clamping attachment Topload 630

- Clamping attachment as single part for extension of Topload tool 400 (799 350 475)
- Suitable for Branch fittings dimension d 280 mm – 630 mm

d-d [mm]	Code	kg	
280 - 630	799 350 476	5.000	

9 150 090



Spring Clamp for ELGEF® 24 V Reinforcing Saddles

- The Spring Clamp is used to install ELGEF® 24 V reinforcing saddles d 40 - 225 mm. The tool ensures a constant jointing pressure during the entire fusion cycle.

d-d [mm]	Code	kg	
40 - 225	799 150 090	1.289	



Assembly and Tapping Key for ELGEF® Plus Saddles

Type	Code	kg	Description	
8/10/17	799 198 047	0.803	For all saddles	



Tapping Key for ELGEF® Plus Saddles

- With adjustable tapping depth.

Type	Code	kg	Description
10	799 198 080	0.120	for Monobloc d 40 mm and d 50 mm
17	799 198 079	0.555	for Monobloc d 63 mm, d 90 - 160 mm and all Duobloc saddles
12.7	799 198 091	0.600	for socket with cutter



Hexagon Key for ELGEF® Plus Saddles and Branch Fittings

Type	Code	kg	Description
SW8	799 150 378	0.152	For all saddles and branch fittings



Tapping Adapter for ELGEF® Plus Saddles

- The Adapter is used for gas-free tapping under pressure. Type S 54 for tapping saddles with rotatable outlet d 20 - 40 mm (Tapping Tee d 32 mm). Type S 67 for tapping saddles with rotatable outlet d 50 - 63 mm (Tapping Tee d 63 mm).

Type	Code	kg	Description
S 54	799 100 061	0.813	for Tapping Tee d 32 mm
S 67	799 100 062	1.011	for Tapping Tee d 63 mm



Pressure Test Cap for ELGEF® Plus Tapping Saddles

- The cap has a Rp 3/8" connection thread and is made from galvanised steel.
- **Overview of Tapping Adapter types and Pressure Test Cap**
- M For Monoblock d 40 and 50 mm (outlets d 20 - 32 mm)
- S 54 For Monoblock d 63 (outlets d 20 - 32 mm) and all saddles with rotatable outlet (outlets d 20 - 40 mm) i.e. Tapping Tee d 32 mm.
- S 67 For all Saddles with rotatable outlet (outlets d 50 and 63 mm) i.e. Tapping Tee d 63 mm.

Type	Code	kg	Description
M	799 199 282	0.119	for Monoblock d 40 mm and d 50 mm
S 54	799 199 283	0.283	for Monoblock d 63 mm and Tapping Tee d 32 mm
S 67	799 199 286	0.461	for Tapping Tee d 63 mm



Cutter for PE Pipes

- This cutter is suitable for PE pipes and can be used on pipes of up to d 225 mm with a wall thickness of up to 21 mm.

d [mm]	Code	kg	Description
39	799 198 012	0.215	accessories Basic Tool Box



PE Repair Plug

- PE Repair Plugs are suitable for use with ELGEF® 24 V PE Reinforcement Saddles 53 127 000.

d [mm]	Code	kg	Description
30	799 199 088	0.012	
39	799 199 089	0.019	



Hexagon Key for PVC Saddles

- The Hexagon Key is suitable for tapping water and gas mains under pressure.
- Scope of delivery: 1 hexagon key, protective cover, without rotating pin.

d-d [mm]	Code	kg	s [mm]	G [inch]
16 - 25	799 150 007	0.345	19	30
32 - 40	799 150 008	0.496	27	38
50 - 63	799 150 009	0.690	27	47

Rotating pin for Hexagon Key

description	Code	kg
10x350 mm	799 150 011	0.220

Accessories and Tools for Welding Machines

Heating Spigots and Bushes



- Aluminium, PTFE coated
- Type B according to DVS 2208-1 (mechanical calibrated pipe ends)
- Always delivered in pairs (also usable for SG 110, SG 125, not for SG 160)

d [mm]	Code	kg	kg/m
16	799 300 155	0.070	0.070
25	799 300 157	0.110	0.110
32	799 300 158	0.140	0.140
40	799 300 159	0.230	0.230
50	799 300 160	0.335	0.335
63	799 300 161	0.600	0.600
75	799 300 162	0.965	0.965
90	799 300 163	1.440	1.440
110	799 300 164	2.210	2.210

Manual Pipe Peeling Tool for Socket Fusion



d [mm]	Code	kg	kg/m
20	799 300 260	0.059	0.059
25	799 300 270	0.074	0.074
32	799 300 280	0.100	0.100
40	799 300 290	0.259	0.259
50	799 300 300	0.299	0.299
63	799 300 310	0.513	0.513
75	799 300 320	0.750	0.750
90	799 300 330	1.070	1.070
110	799 300 340	1.350	1.350

KS Tangit Cleaner



- Special cleaning agent for plastic fusion connections with PP, PE, PVDF and PB.

Code	kg	kg/m
799 298 023	0.868	0.868

Marker



Type	Code	kg	kg/m
silver	799 350 364	0.012	0.012

General Condition of Supply of Georg Fischer Piping Systems (Switzerland) Limited, Schaffhausen

1 General

- 1.1 These General Conditions shall apply to all Products supplied by Georg Fischer to the Purchaser. They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions especially Purchaser's general conditions of purchase and verbal agreements shall only be applicable if accepted in writing by Georg Fischer.
- 1.3 The written form shall be deemed to be fulfilled by all forms of transmission, evidenced in the form of text, such as telefax, e-mail, etc.

2 Tenders

Tenders shall only be binding if they contain a specifically stated period for acceptance.

3 Scope of Delivery

- 3.1 Georg Fischer's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

4 Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer and may only be used for the agreed purposes or as Georg Fischer may consent.

5 Confidentiality, Protection of Personal Data

- 5.1 Each party shall keep in strict confidence all commercial or technical information relating to the business of the other party, of which it has gained knowledge in the course of its dealing with the other party. Such information shall neither be disclosed to third parties nor used for other purposes than those for which the information has been supplied.
- 5.2 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties such as foreign subcontractors and suppliers etc.

6 Local Laws and Regulations, Export Controls

- 6.1 The Purchaser shall bring to the attention of Georg Fischer all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.
- 6.2 In case of re-exports, Purchaser shall be responsible for compliance with pertinent export control regulations.

7 Price

- 7.1 Unless agreed otherwise, the prices shall be deemed quoted net ex works (according to Incoterms of the ICC, latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
 - a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
 - b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially unpractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads. Should the effect of force majeure exceed a period of six months, either party may cancel the contract forthwith. Georg Fischer shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer's right to recover all sums due in respect of consignments delivered and costs incurred to date.
 - c) if the Purchaser is in delay with the fulfilment of his obligations under the contract, in particular, if he does not adhere to the agreed conditions of payment or if he has failed to timely provide the agreed securities.
- 10.3 If for reasons attributable to Georg Fischer the agreed term of delivery or a reasonable extension thereof is exceeded, Georg Fischer shall not be deemed in default until the Purchaser has granted to Georg Fischer in writing a reasonable extension thereof of not less than one month which equally is not met. The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.

- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved. Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

11 Packing

If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms ICC, latest version), even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible. In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the Products.

14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within 7 working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice. In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via www.piping.georgfischer.com. Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if also a second attempt to repair or replace the Products has failed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
- Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
- the statute of limitations for warranty or damage claims - contrary to Section 15.6 - will be 5 years from the date of installation.

16 Limitation of Liability

The rights and remedies of the customer are exclusively governed by these General Conditions of Supply. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded. In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages. This limitation of liability, however, does not apply in case of unlawful intent or gross negligence on the part of Georg Fischer's management and in case of strict liability, in particular under applicable product liability statutes.

17 Severability

Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

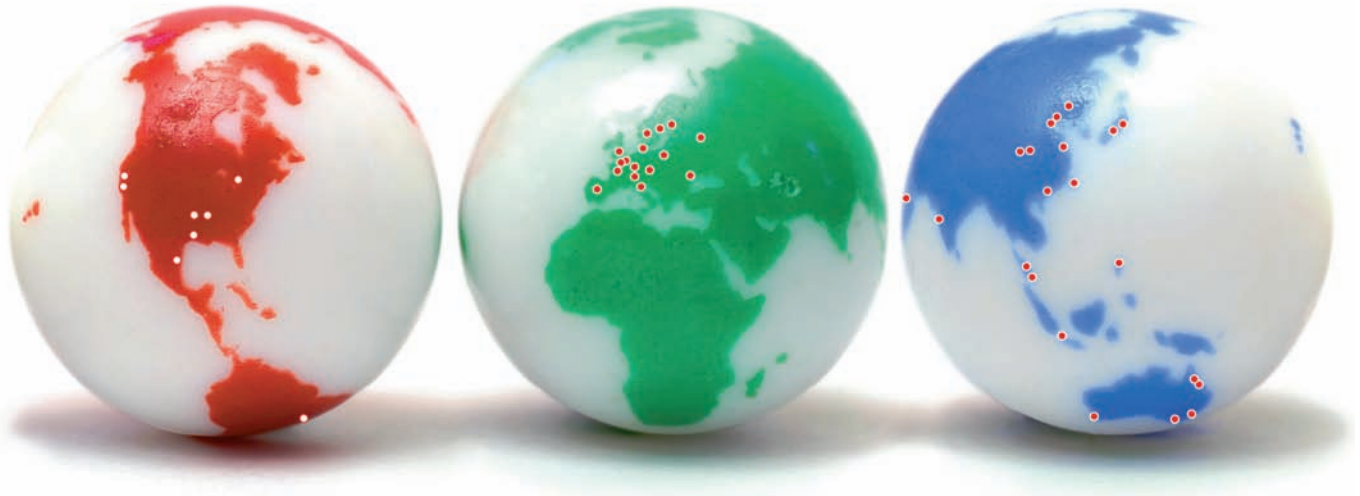
18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland. Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 18.3 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.

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The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

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