

International  
Product Range  
06/2006

Plastic Piping Systems  
for Ship Building and  
Ship Repair

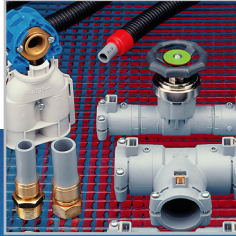


**+GF+**

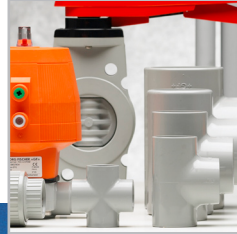
**GEORG FISCHER**  
PIPING SYSTEMS

# Applications

**Hot and Cold,  
Fresh Water**  
INSTAFLEX® (PB), iFIT  
AQUASYSTEM (PP-R)



**Water Treatment  
(drinking water,  
waste water and  
swimming pools)**  
PVC-C, PVC-U, PP-H,  
PE, ABS, PB



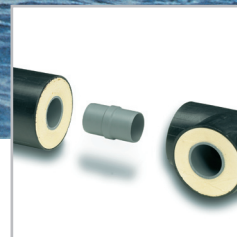
**Sea and Fresh Water  
Cooling**  
PE 100



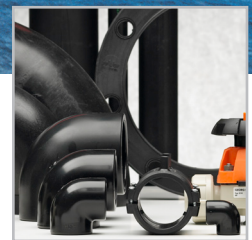
**Grey  
and Black Water**  
FUSEAL Sea Drain  
(PPFR), PVC, ABS



**Refrigeration  
below 0 °C**  
ABS, PE 100



**Air Condition**  
ABS, PE 100



**Ballastsystems**  
PE 100

# Ship Building

Ships are not only floating cities but are also essential for the world's economy. Water is their element.

Preventing corrosion is more important here than anywhere else. With plastic piping systems from GF Piping Systems, corrosion is no longer an issue.

## → Plastic can do more

Corrosion-free piping systems. This guarantees the long service life of your systems. You save dry-dock time. You save service costs. You save maintenance costs. All in all, you are in business quicker. That is your benefit.

You also save on weight. Plastic piping systems weigh approx. 5 x less than metal – a savings of several tonnes per ship. This in turn allows for more freight, more passengers and therefore more profit.

Besides, installation is much faster. Plastic offers the possibility of prefabrication, which radically reduces installation time on board. Plastic enables installations with a small amount of tools in a small amount of space. Technical specialists are not always required. Another significant benefit.

## Weight comparison. Plastic to Metal (per 100 metres of piping)

kg	Pipe diameter			
	d 25	d 50	d 110	d 160
Plastic	16	53	248	550
Carbon steel	119	233	737	1093
Stainless steel	79	197	505	1542
Copper	59	292	737	–
<b>Savings plastic to steel</b>	<b>103</b>	<b>239</b>	<b>489</b>	<b>992</b>

## → your benefits at a glance

- No corrosion
- Light weight
- Long service life
- Economical upkeep
- Fast installation
- Less noise emission
- Global availability

## → applications – materials – systems

**Water treatment.** A water treatment system for drinking water is always necessary on board a ship. As well as water conditioning for swimming pool water. The best solutions for these applications are our ABS and PP-H systems. These have the advantage of being very lightweight and flexible. Due to the weight advantage, they are also very suitable for use on yachts. The materials PVC-U, PVC-C and INSTAFLEX are also ideal for such applications.

**Cooling systems.** When indirect cooling goes below 0 °C, plastics which can withstand these temperatures are required. This is where ABS and PE 100 show their strengths because they can be used down to –40 °C. They are robust and have excellent impact strength.

**Hot and cold drinking water.** To supply your staterooms or the kitchen with water, we recommend our INSTAFLEX® (PB) in combination with iFIT and AQUASYSTEM (PP-R) systems. Both withstands temperatures from 0 °C to 95 °C and are therefore resistant to hot water. Thanks to its flexibility, the material PB (INSTAFLEX®) is also very easy to install, it can be obtained pre-fabricated in lengths of 40 m rolled together.

**Seawater and fresh water cooling** (non essential). For cooling seawater or fresh water, for example in air conditioning systems, etc., our PE 100 and ABS systems are implemented. They are robust and very suitable for use at low temperatures.

**Grey and black water.** Our ABS, PVC-C and PVC-U solvent cement systems and our fusion-jointed systems, PE 100 and FUSEAL® Sea Drain, are all ideal for industrial and dirty water. These plastics can be used at very low temperatures. Like all our plastic systems, they do not corrode and therefore provide a much longer service life. Additionally, they exhibit high mechanical strength, which is very important on ships.

**Bilge, drainage and ballast systems.** Larger dimensioned systems are necessary for bilge, drainage and ballast systems inside of the ballast tanks. PE 100 is ideal for such applications. It is on offer in the dimension range 20–315mm, including a large selection of fittings. Among the multiple benefits, such as light weight and good abrasion resistance, the easy handling comes to the fore. It can be installed with electro-fusion jointing, which is very simple and saves time.

**Approvals.** GF Piping Systems has a whole range of approvals from all the major classification societies.

Material System	Classification Society								
	GL	LR	BV	RINA	ABS	DNV	CCS	RMOS	KR
ABS	•	•	•	•	•	•		•	
PVC-C	•	•	•	•	•	•	•	•	
PVC-U	•	•	•	•	•	•	•	•	
PE 100	•	•	•	•	•	•	•	•	
PP-H		•	•	•		•			
PB INSTAFLEX	•	•	•	•	•	•	•	•	
PP-R Aquasystem	•	•		•	•	•			•
iFIT	•	•	•	applied	applied	•		•	
Fuseal Sea Drain	•	•			•	•		•	
Butterfly Valve	•	•	•	applied	•	•	•	•	

# Product Range Piping Systems

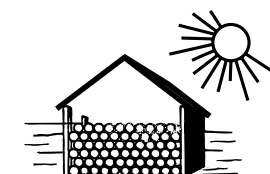
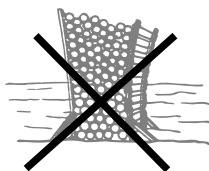
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# Working with plastic pipes and fittings

Transport and storage of plastic pipes

**WRONG**

**RIGHT**



Plastics are materials sensitive to impact and crushing at low temperatures. The temperature limit depends on the relevant material.

PP-R	+5 °C
PVC-C	+5 °C
PB	-10 °C
VPE	-20 °C

Below these temperatures pipes and fittings would have to be protected particularly from impacts, crushing and other external mechanical stresses.



Safety instruction











Plastic pipes and plastic fittings must be protected in principle from external influences. Direct sunlight, impacts and compressive stresses should be avoided. The pipes and fittings must be left in their packing until used. They should not be stored out of doors.

## List of abbreviations

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

# INSTAFLEX®

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# Pipes

3710

## Pipe PB in coils

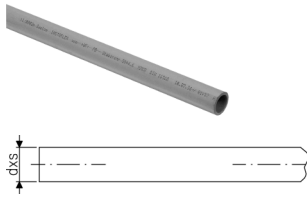
- Packed in cardboard boxes



d [mm]	s [mm]	Code	SP	kg/m	
16	2.2	<b>760 853 389</b>	60	0.100	
20	2.8	<b>760 853 390</b>	60	0.150	
25	2.3	<b>760 854 946</b>	30	0.165	

3712

## Pipe PB in bars of 3 m<sup>1</sup>

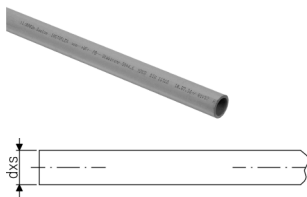


d [mm]	s [mm]	Code	SP	kg	kg/m	
25	2.3	<b>760 854 964</b>	48	0.165	0.165	
32	2.9	<b>760 854 965</b>	27	0.270	0.270	
40	3.7	<b>760 854 966</b>	27	0.416	0.416	
50	4.6	<b>760 854 967</b>	15	0.645	0.645	
63	5.8	<b>760 854 968</b>	12	1.020	1.020	

3714

## Pipe PB in bars of 5,8 m<sup>1</sup>

- Packed in cardboard boxes

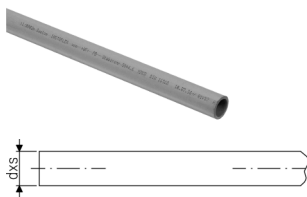


d [mm]	s [mm]	Code	kg/m	SP [m]	
16	2.2	<b>760 856 606</b>	0.097	52.2	
20	2.8	<b>760 856 607</b>	0.151	52.2	
25	2.3	<b>760 856 608</b>	0.165	58.0	
32	2.9	<b>760 856 609</b>	0.270	23.2	
40	3.7	<b>760 856 610</b>	0.416	17.4	
50	4.6	<b>760 856 611</b>	0.645	17.4	
63	5.8	<b>760 856 612</b>	1.020	5.8	
75	6.8	<b>760 856 613</b>	1.440	5.8	
90	8.2	<b>760 856 614</b>	2.060	5.8	
110	10.0	<b>760 856 615</b>	3.050	5.8	

3711

## Pipe PB in bars of 5,0 m<sup>1</sup>

- Packed in cardboard boxes

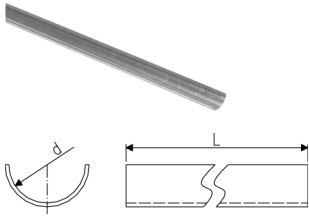


d [mm]	s [mm]	Code	SP	kg/m	L [m]	
125	11.4	<b>761 065 252</b>	5	3.950	5	
160	14.6	<b>761 065 253</b>	5	6.460	5	
225	20.5	<b>761 065 254</b>	5	12.700	5	

# Accessories

3931

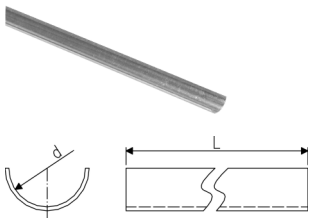
## Clip-carrier



d [mm]	Code	SP	kg/m	L [mm]
16	<b>760 856 602</b>	30	0.270	3000
20	<b>760 856 603</b>	30	0.320	3000
25	<b>760 856 604</b>	30	0.480	3000
32	<b>760 856 605</b>	30	0.600	3000

3929

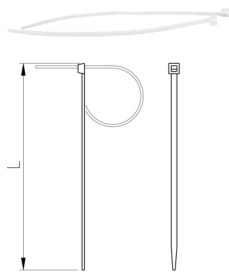
## Carrier



d [mm]	Code	SP	kg/m	L [mm]
40	<b>760 854 928</b>	30	0.360	3000
50	<b>760 854 929</b>	30	0.450	3000
63	<b>760 854 930</b>	30	0.570	3000
75	<b>760 854 985</b>	30	0.680	3000

3930

## Carrier ties



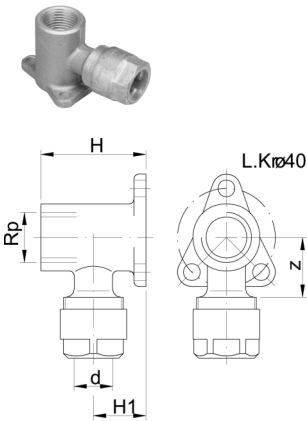
d-d [mm]	Code	SP	kg	L [mm]
16 - 40	<b>760 853 283</b>	100	0.001	200
50 - 75	<b>760 853 284</b>	100	0.003	300
90 - 110	<b>760 854 984</b>	100	0.001	430

# Outlet Joints without Box

3032

## Single pipe outlet, with flange

- Screw 760 856 040, self tapping M6 x16
- \* For GIS wall mounting

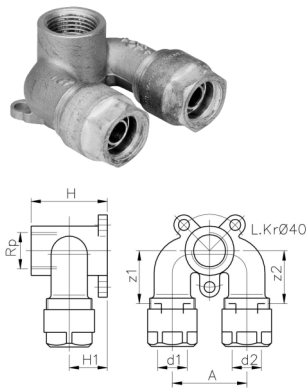


d [mm]	Rp [inch]	Code	SP	kg	H [mm]	H1 [mm]	z [mm]
16	½	<b>760 853 013</b>	10	0.256	44	22	28
16	½	<b>760 856 036</b>	2	0.269	60	22	28
16	½	<b>760 856 037</b>	2	0.319	80	22	28
*16	½	<b>760 856 043</b>	10	0.280	100	22	28
20	½	<b>760 854 682</b>	10	0.330	44	25	28
20	¾	<b>760 853 038</b>	1	0.317	44	25	28

3043

## Dual pipe outlet, with flange

- Screw 760 856 040, self tapping M6 x16
- \* For GIS wall mounting

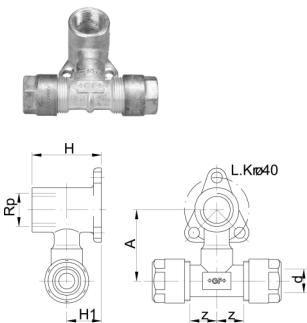


d1 [mm]	Rp [inch]	d2 [mm]	Code	SP	kg	H [mm]	H1 [mm]	A [mm]	z1 [mm]	z2 [mm]
16	½	16	<b>760 853 059</b>	1	0.325	44	22	40	30	30
*16	½	16	<b>760 856 045</b>	1	0.385	100	22	40	30	30
20	½	20	<b>760 869 902</b>	1	0.440	44	25	40	32	32

3030

## Dual pipe outlet, with flange

- Screw 760 856 040, self tapping M6 x16

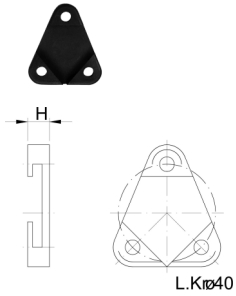


d [mm]	Rp [inch]	Code	SP	kg	H [mm]	H1 [mm]	z [mm]
16	½	<b>760 853 014</b>	10	0.374	44	22	19

3172

**Rubber isolator**

- Suitable for single and dual pipe outlets

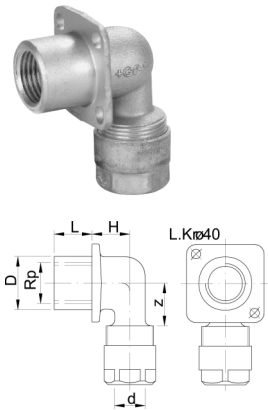


Code	SP	kg	H [mm]
760 856 205	20	0.007	9

3064

**Single pipe outlet, with flange**

- Screw 760 856 040, self tapping M6 x16

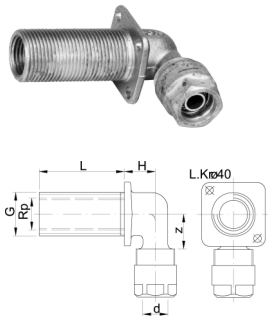


d [mm]	Rp [inch]	Code	SP	kg	H [mm]	L [mm]	D [mm]	z [mm]
16	½	760 869 904	2	0.215	22	20	27	26

3066

**Single pipe outlet, with flange**

- Screw 760 856 040, self tapping M6 x16

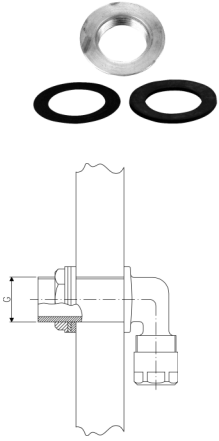


d [mm]	Rp [inch]	G [inch]	Code	SP	kg	H [mm]	L [mm]	z [mm]
16	½	¾	760 856 041	2	0.270	20	30	26
16	½	¾	760 869 906	2	0.260	20	55	26
16	½	¾	760 869 923	2	0.360	20	100	26

3067

### Fastening set

- Consists of: Union nut, washer, seal



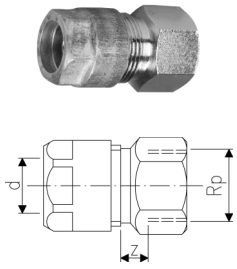
G [inch]	Code	SP	kg	
3/4	<b>760 854 699</b>	10	0.045	

# Fittings for Compression Joints

3301

## Adaptor with female thread

1) available as long as stock exist



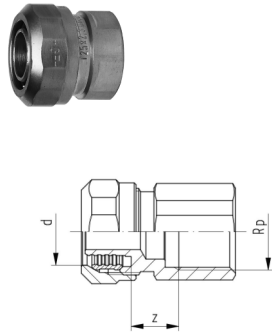
d [mm]	Rp [inch]	Code	SP	kg	z [mm]	
16	½	<b>760 853 104</b>	5	0.125	12	
16	¾	<b>760 853 105</b>	5	0.128	15	
20	½	<b>760 853 194</b>	5	0.196	14	
20	¾	<b>760 853 153</b>	5	0.182	15	

3301

## Adaptor with female thread



Available by 1st August 2006

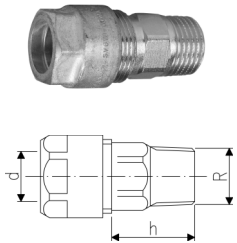


d [mm]	Rp [inch]	Code	SP	kg	z [mm]	Remarks	
25	¾	<b>760 856 231</b>	10	0.165	7		
25	1	<b>760 856 232</b>	10	0.209	13		
32	1	<b>760 856 233</b>	10	0.317	7		
40	1 ¼	<b>760 856 234</b>	10	0.453	7		
50	1 ½	<b>760 856 235</b>	5	0.625	7		
63	2	<b>760 856 236</b>	1	1.570	9		
75	2 ½	<b>760 856 248</b>	1	1.976	10	without approbation	
90	3	<b>760 856 261</b>	1	0.800	9	without approbation	
110	4	<b>760 856 262</b>	1	1.000	38	without approbation	

3310

## Adaptor with male thread

1) available as long as stock exist

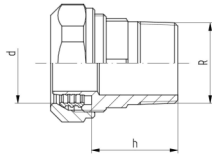


d [mm]	R [inch]	Code	SP	kg	h [mm]	
16	½	<b>760 853 107</b>	5	0.111	30	
16	¾	<b>760 853 108</b>	5	0.161	34	
20	½	<b>760 853 195</b>	5	0.202	38	
20	¾	<b>760 853 138</b>	5	0.222	36	

3310

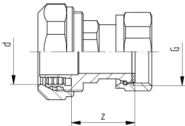
**Adaptor with male thread**

Available by 1st August 2006



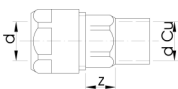
d [mm]	R [inch]	Code	SP	kg	h [mm]	Remarks
25	¾	<b>760 856 241</b>	10	0.149	35	
25	1	<b>760 856 242</b>	10	0.175	41	
32	1	<b>760 856 243</b>	10	0.256	42	
40	1 ¼	<b>760 856 244</b>	10	0.343	44	
50	1 ½	<b>760 856 245</b>	5	0.490	47	
63	2	<b>760 856 246</b>	1	0.812	32	
75	2 ½	<b>760 856 247</b>	1	1.127	37	without approbation
90	3	<b>760 856 263</b>	1	0.800	32	without approbation
110	4	<b>760 856 264</b>	1	1.000	38	without approbation

6216

**Adaptor with loose nuion nut, flat seal**

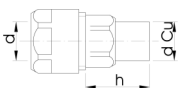
d [mm]	G [inch]	Code	SP	kg	z [mm]	
25	¾	<b>761 069 539</b>	10	0.172	28	
25	1	<b>761 069 540</b>	10	0.235	34	
25	1 ¼	<b>761 069 541</b>	10	0.266	27	
32	1	<b>761 069 542</b>	10	0.342	36	
32	1 ¼	<b>761 069 543</b>	10	0.385	39	
32	1 ½	<b>761 069 544</b>	10	0.410	30	
40	1 ¼	<b>761 069 545</b>	10	0.439	40	
40	1 ½	<b>761 069 546</b>	10	0.503	43	
40	2	<b>761 069 547</b>	5	0.640	33	
50	1 ¾	<b>761 069 548</b>	5	0.910	44	
50	2 ¼	<b>761 069 549</b>	5	0.950	33	
63	2 ¾	<b>761 069 550</b>	2	1.900	36	
63	2 ¾	<b>761 069 551</b>	2	2.600	34	

3320

**Adaptor with soldering end, socket**

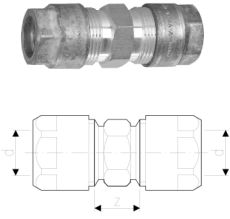
d [mm]	dCu [mm]	Code	SP	kg	z [mm]	
16	15	<b>760 853 114</b>	2	0.097	14	
16	18	<b>760 853 196</b>	2	0.093	12	
20	18	<b>760 853 197</b>	2	0.168	14	
20	22	<b>760 853 139</b>	2	0.156	11	

3321

**Adaptor with soldering end, spigot**

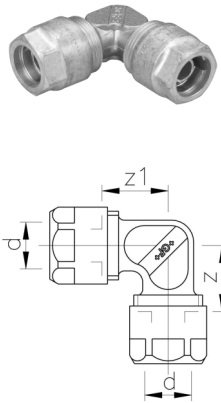
d [mm]	dCu [mm]	Code	SP	kg	h [mm]	
16	15	<b>760 853 113</b>	2	0.097	28	
16	18	<b>760 853 198</b>	2	0.103	30	
20	18	<b>760 853 199</b>	2	0.135	35	
20	22	<b>760 854 700</b>	2	0.155	38	

3330

**Socket**

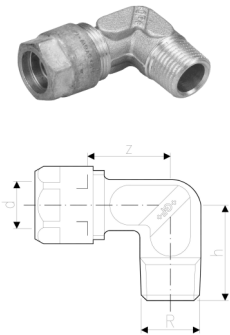
d [mm]	Code	SP	kg	z [mm]	
16	<b>760 853 124</b>	2	0.196	26	
20	<b>760 853 151</b>	2	0.294	28	

3363

**Elbow 90°**

d [mm]	Code	SP	kg	z [mm]	z1 [mm]	
16	<b>760 854 842</b>	5	0.199	22	22	
20	<b>760 854 843</b>	5	0.262	24	24	

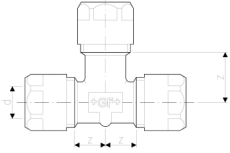
3364

**Adaptor elbow 90° with male thread**

d [mm]	R [inch]	Code	SP	kg	h [mm]	z [mm]	
16	½	<b>760 854 838</b>	5	0.171	35	27	
16	¾	<b>760 854 839</b>	5	0.184	35	27	
20	½	<b>760 869 991</b>	5	0.190	35	29	
20	¾	<b>760 854 840</b>	5	0.208	35	29	
25	¾	<b>760 854 819</b>	2	0.500	40	29	

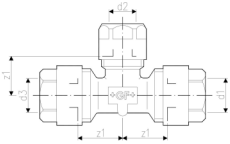


3350

**Tee 90°, equal**

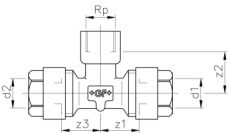
d [mm]	Code	SP	kg	z [mm]
16	<b>760 853 125</b>	2	0.259	22
20	<b>760 853 131</b>	2	0.388	24

3355/3356/3357

**Tee 90°, reduced**

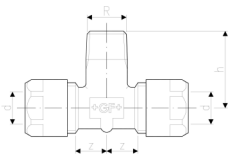
d3 [mm]	d1 [mm]	d2 [mm]	Code	SP	kg	z1 [mm]	z2 [mm]	z3 [mm]
20	20	16	<b>760 853 136</b>	2	0.360	24	23	23
16	20	16	<b>760 853 140</b>	2	0.330	24	23	23
16	20	20	<b>760 853 137</b>	2	0.319	24	24	23

3359

**Adaptor Tee with female thread**

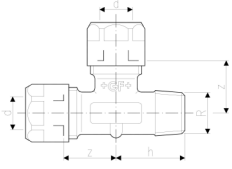
d [mm]	Rp [inch]	Code	SP	kg	z1 [mm]	z2 [mm]	z3 [mm]
20	½	<b>760 854 841</b>	5	0.320	24	22	24

3358

**Adaptor Tee with male thread**

d [mm]	R [inch]	Code	SP	kg	z [mm]	h [mm]
16	½	<b>760 854 711</b>	2	0.225	19	38
20	½	<b>760 856 211</b>	2	0.327	24	39

3360

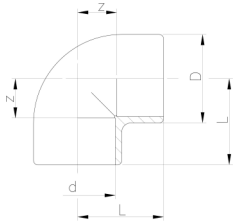
**Adaptor Tee with male thread**

d [mm]	R [inch]	Code	SP	kg	z [mm]	h [mm]	
16	½	<b>760 869 987</b>	2	0.200	22	30	

# Fittings for Socket Fusion Jointing

5005

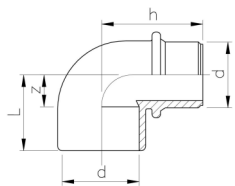
## Elbow 90°



d [mm]	Code	SP	kg	L [mm]	D [mm]	z [mm]
16	<b>761 066 600</b>	10	0.014	25	22	10
20	<b>761 066 601</b>	10	0.015	28	26	13
25	<b>761 066 602</b>	10	0.026	32	32	14
32	<b>761 066 603</b>	10	0.035	38	40	18
40	<b>761 066 604</b>	10	0.076	44	51	22
50	<b>761 066 605</b>	10	0.116	51	64	26
63	<b>761 066 606</b>	2	0.239	62	81	34
75	<b>761 066 607</b>	2	0.310	75	91	44
90	<b>761 066 608</b>	2	0.500	88	108	52
110	<b>761 066 609</b>	2	0.900	105	132	63

5008

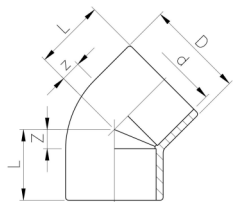
## Elbow 90°, socket-spigot



d [mm]	Code	SP	kg	L [mm]	D [mm]	h [mm]	z [mm]
16	<b>761 066 900</b>	10	0.009	25	22	34	10
20	<b>761 066 901</b>	10	0.012	28	26	36	13
25	<b>761 066 902</b>	10	0.021	32	32	44	14
32	<b>761 066 903</b>	10	0.037	38	40	50	18
40	<b>761 066 904</b>	5	0.067	44	51	58	22
50	<b>761 066 905</b>	5	0.122	51	64	70	26
63	<b>761 066 906</b>	2	0.233	62	81	82	34

5010

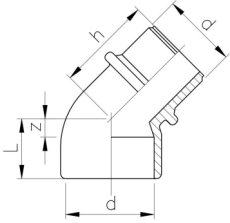
## Elbow 45°



d [mm]	Code	SP	kg	L [mm]	D [mm]	z [mm]
16	<b>761 066 610</b>	10	0.008	21	22	6
20	<b>761 066 611</b>	10	0.016	22	26	7
25	<b>761 066 612</b>	10	0.026	25	32	7
32	<b>761 066 613</b>	10	0.030	30	40	10
40	<b>761 066 614</b>	5	0.064	34	51	12
50	<b>761 066 615</b>	5	0.090	39	64	14
63	<b>761 066 616</b>	2	0.145	45	81	17
75	<b>761 066 617</b>	2	0.210	51	92	20
90	<b>761 066 618</b>	2	0.430	58	109	22
110	<b>761 066 619</b>	2	0.640	68	134	26

5018

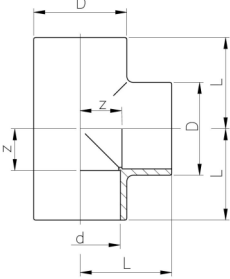
## Elbow 45°, socket-spigot



d [mm]	Code	SP	kg	L [mm]	D [mm]	h [mm]	z [mm]
16	<b>761 066 907</b>	10	0.008	21	22	29	6
20	<b>761 066 908</b>	10	0.011	22	26	30	7
25	<b>761 066 909</b>	10	0.017	25	32	35	7
32	<b>761 066 910</b>	10	0.032	30	40	40	10
40	<b>761 066 911</b>	5	0.055	34	51	46	12
50	<b>761 066 912</b>	5	0.099	39	64	53	14
63	<b>761 066 913</b>	2	0.180	45	81	62	17

5015

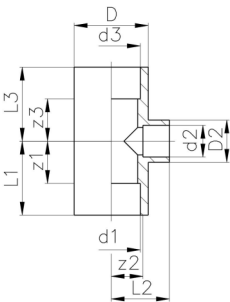
## Tee 90° equal



d [mm]	Code	SP	kg	L [mm]	D [mm]	z [mm]
16	<b>761 066 620</b>	10	0.017	25	22	10
20	<b>761 066 621</b>	10	0.025	28	26	13
25	<b>761 066 622</b>	10	0.036	32	32	14
32	<b>761 066 623</b>	10	0.045	38	40	18
40	<b>761 066 624</b>	10	0.105	44	51	22
50	<b>761 066 625</b>	10	0.145	51	64	26
63	<b>761 066 626</b>	5	0.315	62	81	34
75	<b>761 066 627</b>	2	0.430	75	91	44
90	<b>761 066 628</b>	2	0.750	88	112	52
110	<b>761 066 629</b>	2	1.120	105	132	63

5020

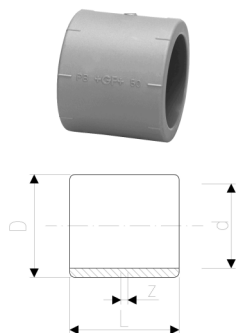
## Tee 90° reduced



d3 [mm]	d1 [mm]	d2 [mm]	Code	SP	kg	D [mm]	D2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	z1 [mm]	z2 [mm]	z3 [mm]
20	20	16	<b>761 066 914</b>	10	0.015	26	22	28	28	28	13	13	13
16	20	16	<b>761 066 915</b>	10	0.016	26	22	28	28	28	13	13	13
16	20	20	<b>761 066 916</b>	10	0.017	26	26	28	28	28	13	13	13
25	25	16	<b>761 066 917</b>	10	0.025	32	26	32	32	32	14	17	14
25	25	20	<b>761 066 918</b>	10	0.023	32	26	32	32	32	14	17	14
20	25	20	<b>761 066 919</b>	10	0.026	32	26	32	32	32	14	17	17
20	25	25	<b>761 066 920</b>	10	0.027	32	32	32	32	32	14	14	17
32	32	16	<b>761 066 921</b>	10	0.041	40	26	38	38	38	18	23	18
32	32	20	<b>761 066 922</b>	10	0.039	40	26	38	38	38	18	23	18
32	32	25	<b>761 066 923</b>	10	0.040	40	32	38	38	38	18	20	18
40	40	16	<b>761 066 295</b>	5	0.083	51	34	44	44	44	22	29	22
40	40	25	<b>761 066 924</b>	5	0.077	51	34	44	44	44	22	26	22
50	50	16	<b>761 066 309</b>	5	0.135	64	34	51	51	51	26	36	26
50	50	25	<b>761 066 925</b>	5	0.130	64	34	51	51	51	26	33	26
63	63	16	<b>761 066 310</b>	5	0.257	81	35	62	62	62	34	47	34
63	63	25	<b>761 066 926</b>	5	0.252	81	35	62	62	62	34	44	34

5040

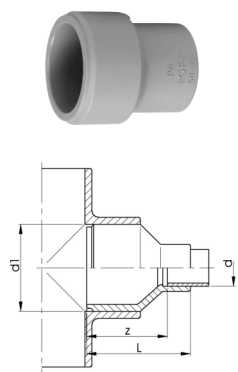
## Socket



d [mm]	Code	SP	kg	L [mm]	D [mm]	z [mm]
16	<b>761 066 660</b>	10	0.009	33	22	3
20	<b>761 066 661</b>	10	0.014	33	26	3
25	<b>761 066 662</b>	10	0.020	39	32	3
32	<b>761 066 663</b>	10	0.033	43	40	3
40	<b>761 066 664</b>	10	0.048	48	51	4
50	<b>761 066 665</b>	10	0.069	54	64	4
63	<b>761 066 666</b>	2	0.120	60	81	4
75	<b>761 066 667</b>	2	0.150	69	91	7
90	<b>761 066 668</b>	2	0.250	80	110	8
110	<b>761 066 669</b>	2	0.440	94	133	10

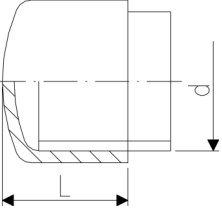
5045

## Reducing bush



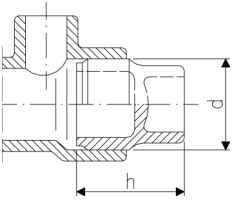
d [mm]	d1 [mm]	Code	SP	kg	L [mm]	z [mm]
20	16	<b>761 066 670</b>	10	0.005	30	15
25	16	<b>761 066 671</b>	10	0.010	33	18
25	20	<b>761 066 672</b>	10	0.015	33	18
32	20	<b>761 066 674</b>	10	0.018	40	25
32	25	<b>761 066 675</b>	10	0.022	40	22
40	20	<b>761 066 677</b>	10	0.024	42	27
40	25	<b>761 066 678</b>	10	0.028	42	24
40	32	<b>761 066 679</b>	10	0.034	42	22
50	20	<b>761 066 681</b>	10	0.035	55	40
50	25	<b>761 066 682</b>	10	0.038	55	37
50	32	<b>761 066 683</b>	10	0.042	55	35
50	40	<b>761 066 684</b>	10	0.050	55	33
63	20	<b>761 066 686</b>	5	0.055	58	43
63	25	<b>761 066 687</b>	5	0.060	58	40
63	32	<b>761 066 688</b>	5	0.066	58	38
63	40	<b>761 066 689</b>	5	0.074	58	36
63	50	<b>761 066 690</b>	5	0.079	58	33
75	63	<b>761 066 742</b>	2	0.115	67	39
90	63	<b>761 066 746</b>	2	0.149	74	46
90	75	<b>761 066 745</b>	2	0.160	74	43
110	63	<b>761 066 747</b>	2	0.229	86	58
110	75	<b>761 066 749</b>	2	0.234	86	55
110	90	<b>761 066 748</b>	2	0.270	86	50

5050

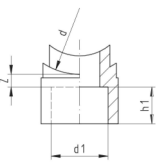
**Cap**

d [mm]	Code	SP	kg	L [mm]
16	<b>761 066 650</b>	10	0.006	22
20	<b>761 066 651</b>	10	0.010	24
25	<b>761 066 652</b>	10	0.014	28
32	<b>761 066 653</b>	10	0.022	32
40	<b>761 066 654</b>	10	0.024	38
50	<b>761 066 655</b>	10	0.050	44
63	<b>761 066 656</b>	5	0.079	50

5051

**Plug**

d [mm]	Code	SP	kg	h [mm]
25	<b>761 066 938</b>	10	0.008	33

**Weld-in-Saddle  
Weld-in-Saddle**

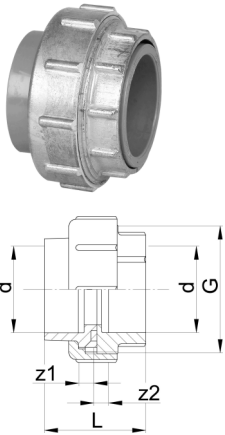
d - d1 [mm]	Code Code	SP	kg	h1 [mm]	z [mm]
50 - 32	<b>761 066 864</b>	5	0.019	21	8
63 - 32	<b>761 066 867</b>	5	0.027	21	8
75 - 32	<b>761 066 870</b>	5	0.027	21	8
90 - 32	<b>761 066 873</b>	5	0.027	21	8
110 - 32	<b>761 066 876</b>	5	0.027	21	8

# Union

5035

## Union, socket-socket

- Including O-Ring, EPDM quality for potable water

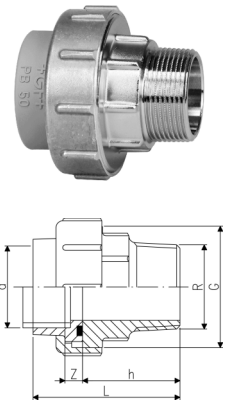


d [mm]	Code	SP	kg	L [mm]	z1 [mm]	z2 [mm]	G [inch]
16	<b>761 066 691</b>	10	0.135	43	8	5	1
20	<b>761 066 692</b>	10	0.150	43	8	5	1 1/4
25	<b>761 066 693</b>	10	0.200	49	8	5	1 1/2
32	<b>761 066 694</b>	5	0.295	53	8	5	2
40	<b>761 066 695</b>	5	0.450	59	10	5	2 1/2
50	<b>761 066 696</b>	2	0.560	65	10	5	2 3/4
63	<b>761 066 697</b>	2	0.900	71	10	5	3 1/2

5036

## Adaptor union socket-male thread

- Including O-Ring, EPDM quality for potable water

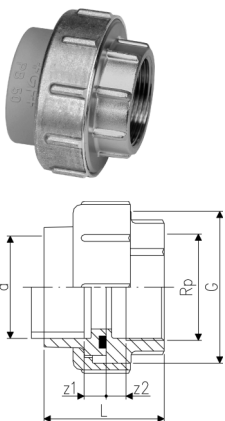


d [mm]	R [inch]	Code	SP	kg	L [mm]	h [mm]	z [mm]	G [inch]
16	1/2	<b>761 066 698</b>	10	0.262	61	38	8	1
20	1/2	<b>761 066 699</b>	10	0.150	63	40	8	1 1/4
25	3/4	<b>761 066 700</b>	10	0.320	67	41	8	1 1/2
32	1	<b>761 066 701</b>	5	0.340	73	45	8	2
40	1 1/4	<b>761 066 702</b>	5	0.560	80	48	10	2 1/2
50	1 1/2	<b>761 066 703</b>	2	0.800	83	48	10	2 3/4
63	2	<b>761 066 704</b>	2	0.900	92	54	10	3 1/2

5037

## Adaptor union, socket-female thread

- Including O-Ring, EPDM quality for potable water

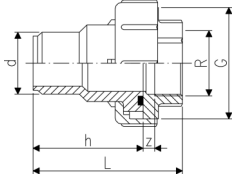


d [mm]	Rp [inch]	Code	SP	kg	L [mm]	z1 [mm]	z2 [mm]	G [inch]
16	1/2	<b>761 066 705</b>	10	0.207	45	8	9	1
20	1/2	<b>761 066 706</b>	10	0.120	47	8	10	1 1/4
25	3/4	<b>761 066 707</b>	10	0.280	50	8	9	1 1/2
32	1	<b>761 066 708</b>	5	0.270	53	8	8	2
40	1 1/4	<b>761 066 709</b>	5	0.600	58	10	7	2 1/2
50	1 1/2	<b>761 066 710</b>	2	0.700	61	10	7	2 3/4
63	2	<b>761 066 711</b>	2	0.720	66	10	5	3 1/2

5039

## Adaptor union, spigot-female thread

- Spigot-internal thread
- Including O-Ring, EPDM quality for potable water



Available as long as stock exist

d [mm]	G [inch]	Code	SP	kg	L [mm]	z [mm]	h [mm]	G [inch]	
20	1/2	<b>761 066 978</b>	10	0.220	66	10	42	11/4	
25	3/4	<b>761 066 977</b>	10	0.271	71	9	47	11/2	
32	1	<b>761 066 992</b>	5	0.372	76	8	51	2	

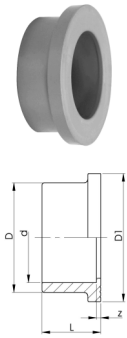


# Flange Jointing

5030

## Flange adaptor flat

- Suitable for flange or union nut



d [mm]	Code	SP	kg	L [mm]	h [mm]	D [mm]	D1 [mm]	z [mm]
16	<b>761 066 630</b>	10	0.005	20	6	22	29	5
20	<b>761 066 631</b>	10	0.007	20	6	27	34	5
25	<b>761 066 632</b>	10	0.010	23	7	33	41	5
32	<b>761 066 633</b>	10	0.016	25	7	41	50	5
40	<b>761 066 634</b>	10	0.025	27	8	50	61	5
50	<b>761 066 635</b>	10	0.034	30	8	61	73	5
63	<b>761 066 636</b>	2	0.060	33	9	76	90	5
75	<b>761 066 637</b>	2	0.090	35	10	90	106	4
90	<b>761 066 638</b>	2	0.130	42	11	109	125	6
110	<b>761 066 639</b>	2	0.230	49	12	131	150	7

5031

## Flange adaptor with groove

- Suitable for flange or union nut
- Including O-Ring, EPDM quality for potable water



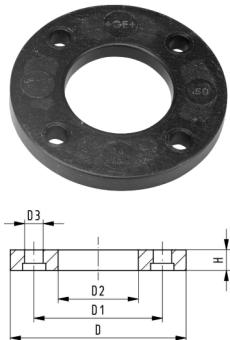
d [mm]	Code	SP	kg	L [mm]	D [mm]	D1 [mm]	z [mm]
16	<b>761 066 640</b>	10	0.006	23	22	29	8
20	<b>761 066 641</b>	10	0.008	23	27	34	8
25	<b>761 066 642</b>	10	0.012	26	33	41	8
32	<b>761 066 643</b>	10	0.018	28	41	50	8
40	<b>761 066 644</b>	10	0.030	32	50	61	10
50	<b>761 066 645</b>	10	0.040	35	61	73	10
63	<b>761 066 646</b>	2	0.071	38	76	90	10
75	<b>761 066 647</b>	2	0.090	40	90	106	9
90	<b>761 066 648</b>	2	0.130	47	109	125	11
110	<b>761 066 649</b>	2	0.230	55	131	150	13

5085

## Backing flanges PN 16 IPP

**Material:**

- Material: Casting, GFK coated
- Suitable for flange adaptor
- Tighten the screws with torque, as indicated
- Commercially available screws, nuts, washers



d [mm]	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	<b>761 065 270</b>	2	0.400	106	65	28	14	18	4	M 12x 70
25	<b>761 065 271</b>	2	0.500	118	75	34	14	18	4	M 12x 75
32	<b>761 065 272</b>	2	0.500	122	85	42	14	17	4	M 12x 75
40	<b>761 065 273</b>	2	0.600	142	100	51	18	17	4	M 16x 80
50	<b>761 065 274</b>	2	0.800	156	110	62	18	19	4	M 16x 85
63	<b>761 065 275</b>	2	0.900	171	125	78	18	20	4	M 16x 85
75	<b>761 065 276</b>	2	1.200	191	145	92	18	21	4	M 16x 90
90	<b>761 065 277</b>	2	1.200	206	160	110	18	21	8	M 16x 90
110	<b>761 065 278</b>	2	1.500	226	180	133	18	22	8	M 16x 95

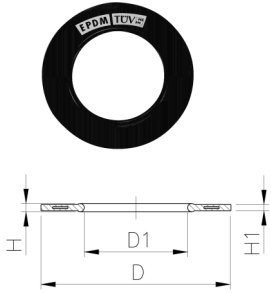
5087

## Flange gasket

**Model:**

- Material: EPDM

- **Only for adaptor metal to plastic**
- Suitable for flange adaptor flat
- The gasket is designed so that it is centered by the flange screws
- **D** corresponds to the centering on the inner diameter of the screw crown

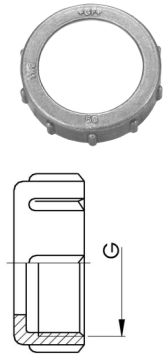


d [mm]	Code	SP	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]
20	<b>761 066 329</b>	5	0.009	51	20	3	4
25	<b>761 066 330</b>	5	0.012	61	25	3	4
32	<b>761 066 331</b>	5	0.015	71	32	3	4
40	<b>761 066 332</b>	5	0.019	82	40	3	4
50	<b>761 066 333</b>	5	0.022	92	50	3	4
63	<b>761 066 334</b>	5	0.041	107	63	4	5
75	<b>761 066 315</b>	1	0.054	127	75	4	5
90	<b>761 066 316</b>	1	0.060	142	90	4	5
110	<b>761 066 317</b>	1	0.083	162	110	5	6

5081

## Union nut

- Suitable for flange adaptor and union



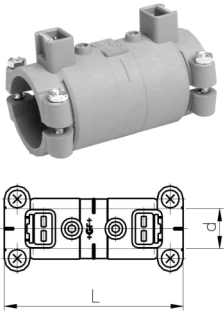
d [mm]	G [inch]	Code	SP	kg
16	1	<b>761 066 188</b>	-	0.120
20	1 ¼	<b>761 066 100</b>	-	0.090
25	1 ½	<b>761 066 101</b>	-	0.110
32	2	<b>761 066 102</b>	-	0.130
40	2 ½	<b>761 066 103</b>	-	0.180
50	2 ¾	<b>761 066 104</b>	-	0.210
63	2 ¾	<b>761 066 105</b>	-	0.313

# Fittings for Electrofusion Jointing

6200

## Electrofusion coupler

- Middle stop can be broken out

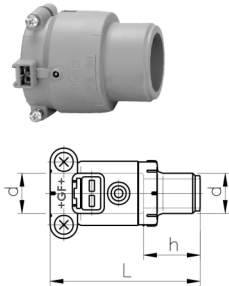


d [mm]	Code	SP	kg	L [mm]
16	<b>761 069 200</b>	1	0.023	76
20	<b>761 069 201</b>	1	0.027	80
25	<b>761 069 202</b>	1	0.041	85
32	<b>761 069 203</b>	1	0.053	85
40	<b>761 069 204</b>	1	0.084	95
50	<b>761 069 205</b>	1	0.121	99
63	<b>761 069 206</b>	1	0.184	102
75	<b>761 069 265</b>	1	0.310	134
90	<b>761 069 266</b>	1	0.474	147
110	<b>761 069 267</b>	1	0.716	160

6201

## Electrofusion adaptor

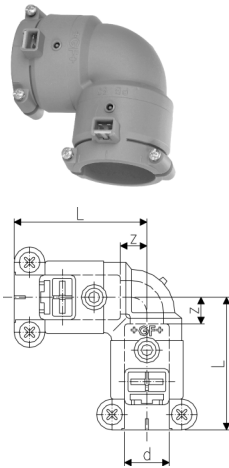
- Spigot for socket fusion



d [mm]	Code	SP	kg	L [mm]	h [mm]
16	<b>761 069 207</b>	1	0.014	60	23
20	<b>761 069 208</b>	1	0.017	61	22
25	<b>761 069 209</b>	1	0.026	67	25
32	<b>761 069 210</b>	1	0.037	71	29
40	<b>761 069 211</b>	1	0.060	79	32
50	<b>761 069 212</b>	1	0.095	85	36
63	<b>761 069 213</b>	1	0.151	94	43

6202

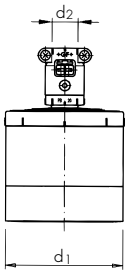
## Electrofusion elbow 90°



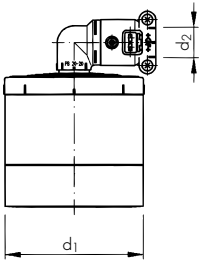
d [mm]	Code	SP	kg	L [mm]	z [mm]
16	<b>761 069 214</b>	1	0.023	47	10
20	<b>761 069 215</b>	1	0.027	54	14
25	<b>761 069 216</b>	1	0.039	58	16
32	<b>761 069 217</b>	1	0.079	60	18
40	<b>761 069 218</b>	1	0.128	69	22
50	<b>761 069 219</b>	1	0.206	78	29
63	<b>761 069 220</b>	1	0.328	86	36
75	<b>761 069 221</b>	1	0.325	112	45
90	<b>761 069 222</b>	1	0.593	127	54
110	<b>761 069 223</b>	1	0.980	146	66

# Special reducers

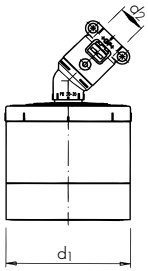
Order from



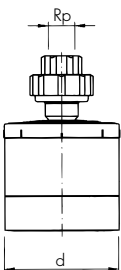
$d_1 \backslash d_2$	16	20	25	32	40	50
75						
90						
110						



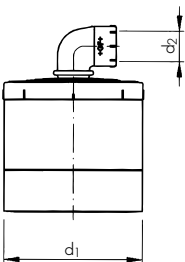
$d_1 \backslash d_2$	16	20	25	32	40	50
75						
90						
110						



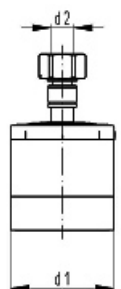
$d_1 \backslash d_2$	16	20	25	32	40	50
75						
90						
110						



$d \backslash R_p$	$1/2$	$3/4$	1
75			
90			
110			

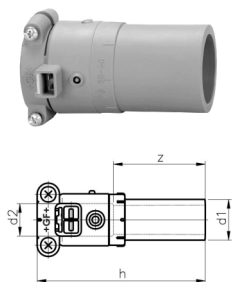


$d_1 \backslash d_2$	16	20	25	32	40	50
75						
90						
110						



$d_1 \backslash d_2$	$16-1/2$	$20-1/2$	$20-3/4$	$25-3/4$	25-1	32-1
75						
90						
110						

## Electrofusion reducer



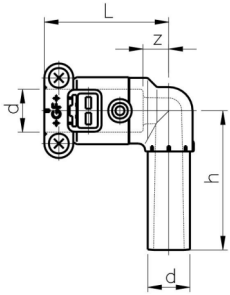
d1 [mm]	d2 [mm]	Code	SP	kg	h [mm]	z [mm]
20	16	<b>761 069 277</b>	1	0.023	83	45
25	16	<b>761 069 278</b>	1	0.026	83	46
25	20	<b>761 069 279</b>	1	0.026	86	47
32	16	<b>761 069 457</b>	1	0.033	86	48
32	20	<b>761 069 280</b>	1	0.030	84	45
32	25	<b>761 069 281</b>	1	0.038	89	47
40	20	<b>761 069 458</b>	1	0.055	102	62
40	25	<b>761 069 459</b>	1	0.060	104	62
40	32	<b>761 069 282</b>	1	0.060	95	53
50	20	<b>761 069 460</b>	1	0.070	102	62
50	25	<b>761 069 461</b>	1	0.075	104	62
50	32	<b>761 069 462</b>	1	0.075	95	53
50	40	<b>761 069 283</b>	1	0.091	103	56
63	20	<b>761 069 463</b>	1	0.096	102	62
63	25	<b>761 069 464</b>	1	0.103	104	62
63	32	<b>761 069 284</b>	1	0.101	95	53
63	40	<b>761 069 465</b>	1	0.121	103	56
63	50	<b>761 069 285</b>	1	0.141	106	57
75	63	<b>761 069 286</b>	1	0.232	129	78
90	63	<b>761 069 287</b>	1	0.289	128	77
90	75	<b>761 069 288</b>	1	0.362	143	76
110	63	<b>761 069 289</b>	1	0.414	135	84
110	75	<b>761 069 290</b>	1	0.460	150	83
110	90	<b>761 069 291</b>	1	0.491	165	92



## Electrofusion special reducer

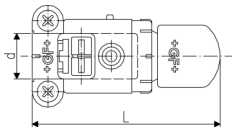
d - d1 [mm]	Code	SP	kg
75 - 16	<b>761 069 604</b>	1	0.201
75 - 20	<b>761 069 605</b>	1	0.204
75 - 25	<b>761 069 606</b>	1	0.213
75 - 32	<b>761 069 607</b>	1	0.224
75 - 40	<b>761 069 608</b>	1	0.247
75 - 50	<b>761 069 609</b>	1	0.282
90 - 16	<b>761 069 610</b>	1	0.254
90 - 20	<b>761 069 611</b>	1	0.257
90 - 25	<b>761 069 612</b>	1	0.266
90 - 32	<b>761 069 613</b>	1	0.277
90 - 40	<b>761 069 614</b>	1	0.300
90 - 50	<b>761 069 615</b>	1	0.335

6222

**Elbow 90° socket-spigot**

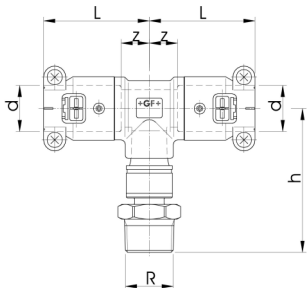
d [mm]	Code	SP	kg	L [mm]	h [mm]	z [mm]
16	<b>761 069 434</b>	1	0.025	47	53	10
20	<b>761 069 435</b>	1	0.035	54	58	14
25	<b>761 069 436</b>	1	0.047	58	62	16
32	<b>761 069 437</b>	1	0.064	60	66	18
40	<b>761 069 438</b>	1	0.113	69	77	22
50	<b>761 069 439</b>	1	0.181	78	85	29
63	<b>761 069 440</b>	1	0.290	86	96	36

6206

**Electrofusion cap**

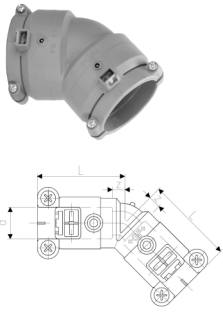
d [mm]	Code	SP	kg	L [mm]
16	<b>761 069 270</b>	1	0.022	67
20	<b>761 069 271</b>	1	0.025	70
25	<b>761 069 272</b>	1	0.036	77
32	<b>761 069 273</b>	1	0.054	83
40	<b>761 069 274</b>	1	0.095	95
50	<b>761 069 275</b>	1	0.153	104
63	<b>761 069 276</b>	1	0.265	116

6224

**Adaptor Tee 90° with male thread**

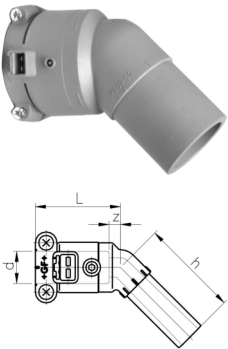
d [mm]	R [inch]	Code	SP	kg	L [mm]	h [mm]	z [mm]
25	3/4	<b>761 069 430</b>	1	0.176	58	78	15
32	1	<b>761 069 431</b>	1	0.225	60	86	17

6203

**Electrofusion elbow 45°**

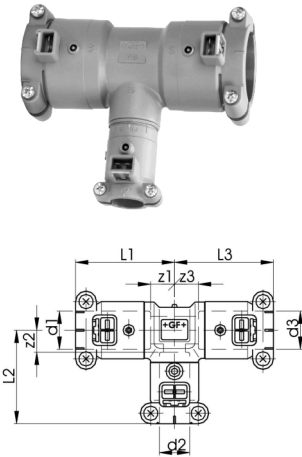
d [mm]	Code	SP	kg	L [mm]	z [mm]
16	<b>761 069 227</b>	1	0.023	44	6
20	<b>761 069 228</b>	1	0.027	46	7
25	<b>761 069 229</b>	1	0.039	50	8
32	<b>761 069 230</b>	1	0.059	51	9
40	<b>761 069 231</b>	1	0.070	58	11
50	<b>761 069 232</b>	1	0.147	63	14
63	<b>761 069 233</b>	1	0.328	68	17
75	<b>761 069 234</b>	1	0.325	88	21
90	<b>761 069 235</b>	1	0.593	98	25
110	<b>761 069 236</b>	1	0.880	111	31

6223

**Elbow 45° socket-spigot**

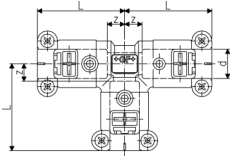
d [mm]	Code	SP	kg	L [mm]	h [mm]	z [mm]
16	<b>761 069 447</b>	1	0.014	44	50	6
20	<b>761 069 448</b>	1	0.030	46	54	7
25	<b>761 069 449</b>	1	0.042	50	57	8
32	<b>761 069 450</b>	1	0.059	51	60	9
40	<b>761 069 451</b>	1	0.098	58	67	11
50	<b>761 069 452</b>	1	0.156	63	75	14
63	<b>761 069 453</b>	1	0.242	68	79	17

6205

**Electrofusion Tee 90° reducer**

d1 [mm]	d2 [mm]	d3 [mm]	Code	SP	kg	L1 [mm]	L2 [mm]	L3 [mm]	z1 [mm]	z2 [mm]	z3 [mm]
20	16	16	<b>761 069 249</b>	1	0.058	54	47	47	14	10	10
20	16	20	<b>761 069 250</b>	1	0.041	54	49	54	14	11	14
25	16	25	<b>761 069 251</b>	1	0.079	58	54	58	16	16	16
25	20	20	<b>761 069 256</b>	1	0.079	58	54	54	16	14	14
25	20	25	<b>761 069 252</b>	1	0.078	58	54	58	16	14	16
25	25	20	<b>761 069 257</b>	1	0.081	58	58	54	16	16	14
32	20	32	<b>761 069 253</b>	1	0.088	60	58	60	18	18	18
32	25	25	<b>761 069 258</b>	1	0.098	60	58	58	18	16	16
32	25	32	<b>761 069 254</b>	1	0.095	60	58	60	18	16	18
40	20	40	<b>761 069 259</b>	1	0.157	69	63	69	22	23	22
40	25	40	<b>761 069 255</b>	1	0.115	69	63	69	22	21	22
40	32	40	<b>761 069 260</b>	1	0.168	69	63	69	22	21	22
50	25	50	<b>761 069 261</b>	1	0.246	78	72	78	29	30	29
50	32	50	<b>761 069 262</b>	1	0.360	78	72	78	29	30	29
63	25	63	<b>761 069 263</b>	1	0.360	86	81	86	36	39	36
63	40	63	<b>761 069 264</b>	1	0.384	86	85	86	36	38	36

6204

**Electrofusion Tee 90° equal**

<b>d</b> [mm]	<b>Code</b>	<b>SP</b>	<b>kg</b>	<b>L</b> [mm]	<b>z</b> [mm]
16	<b>761 069 237</b>	1	0.053	47	10
20	<b>761 069 238</b>	1	0.067	54	14
25	<b>761 069 239</b>	1	0.089	58	16
32	<b>761 069 240</b>	1	0.116	60	18
40	<b>761 069 241</b>	1	0.185	69	22
50	<b>761 069 242</b>	1	0.290	78	29
63	<b>761 069 243</b>	1	0.452	86	36
75	<b>761 069 244</b>	1	0.487	112	45
90	<b>761 069 245</b>	1	0.890	127	54
110	<b>761 069 246</b>	1	1.320	146	66

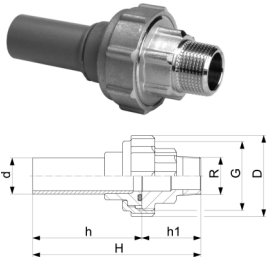


# Unions

6220

## Adaptor union

- Spigot for electrofusion - male thread
- Including O-Ring, EPDM quality for potable water

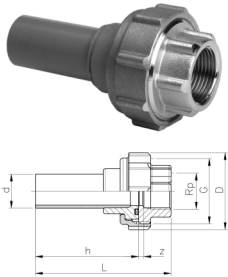


d [mm]	G [inch]	Code	SP	kg	H [mm]	h [mm]	h1 [mm]	G [inch]	D [mm]
16	½	<b>761 069 400</b>	1	0.260	106	68	38	1	41
20	½	<b>761 069 401</b>	1	0.280	110	70	40	11/4	46
25	¾	<b>761 069 402</b>	1	0.325	117	76	41	11/2	52
32	1	<b>761 069 403</b>	1	0.465	123	78	45	2	64
40	1 ¼	<b>761 069 404</b>	1	0.700	136	88	48	21/2	79
50	1 ½	<b>761 069 405</b>	1	0.830	141	93	48	23/4	85
63	2	<b>761 069 406</b>	1	1.205	152	98	54	31/2	104

6221

## Adaptor union

- Spigot for electrofusion - female thread
- Including O-Ring, EPDM quality for potable water

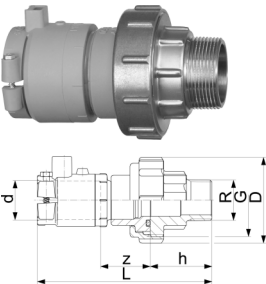


d [mm]	Rp [inch]	Code	SP	kg	H [mm]	h [mm]	z [mm]	G [inch]	D [mm]
16	½	<b>761 069 407</b>	1	0.210	90	68	9	1	41
20	½	<b>761 069 408</b>	1	0.235	94	70	10	11/4	46
25	¾	<b>761 069 409</b>	1	0.295	100	76	9	11/2	52
32	1	<b>761 069 410</b>	1	0.405	103	78	8	2	64
40	1 ¼	<b>761 069 411</b>	1	0.600	114	88	7	21/2	79
50	1 ½	<b>761 069 412</b>	1	0.730	119	93	7	23/4	85
63	2	<b>761 069 413</b>	1	1.055	126	98	5	31/2	104

6225

## Adaptor union

- Including O-Ring, EPDM quality for potable water

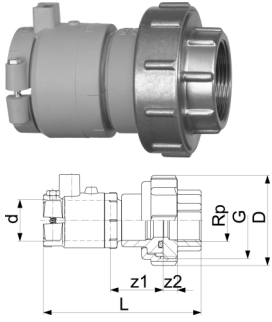


d [mm]	R [inch]	Code	SP	kg	L [mm]	h [mm]	z [mm]	G [inch]	D [mm]
16	½	<b>761 069 475</b>	1	0.270	106	38	31	1	41
20	½	<b>761 069 476</b>	1	0.284	109	40	30	11/4	50
25	¾	<b>761 069 477</b>	1	0.332	116	41	33	11/2	56
32	1	<b>761 069 478</b>	1	0.476	124	45	37	2	69
40	1 ¼	<b>761 069 479</b>	1	0.711	137	48	42	21/2	83
50	1 ½	<b>761 069 480</b>	1	0.840	143	48	46	23/4	90
63	2	<b>761 069 481</b>	1	1.232	158	54	53	31/2	110

6226

## Adaptor union

- Including O-Ring, EPDM quality for potable water

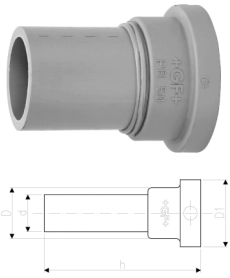


d [mm]	Rp [inch]	Code	SP	kg	L [mm]	z1 [mm]	z2 [mm]	G [inch]	D [mm]
16	1/2	<b>761 069 482</b>	1	0.220	90	31	9	1	41
20	1/2	<b>761 069 483</b>	1	0.244	93	30	10	1 1/4	50
25	3/4	<b>761 069 484</b>	1	0.302	99	33	9	1 1/2	56
32	1	<b>761 069 485</b>	1	0.416	104	37	8	2	69
40	1 1/4	<b>761 069 486</b>	1	0.611	115	42	7	2 1/2	83
50	1 1/2	<b>761 069 487</b>	1	0.740	121	46	7	2 3/4	90
63	2	<b>761 069 488</b>	1	1.082	132	53	5	3 1/2	110

# Flange Connections

6209

## Flange adaptor flat with groove and spigots for electrofusion



- Suitable for flange or union nut
- Including O-Ring, EPDM quality for potable water

d [mm]	Code	SP	kg	h [mm]	D [mm]	D1 [mm]
20	<b>761 069 307</b>	5	0.017	70	27	34
25	<b>761 069 308</b>	5	0.023	76	33	41
32	<b>761 069 309</b>	1	0.036	78	41	50
40	<b>761 069 310</b>	1	0.061	88	50	61
50	<b>761 069 311</b>	1	0.099	93	61	73
63	<b>761 069 312</b>	1	0.155	98	76	90
75	<b>761 069 313</b>	1	0.309	158	90	106
90	<b>761 069 314</b>	1	0.496	172	109	125
110	<b>761 069 315</b>	1	0.783	186	131	150

6210

## Flange adaptor flat with spigot for electrofusion



- Suitable for flange or union nut

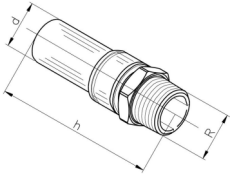
d [mm]	Code	SP	kg	h [mm]	D [mm]	D1 [mm]
20	<b>761 069 321</b>	5	0.017	67	27	34
25	<b>761 069 322</b>	5	0.023	73	33	41
32	<b>761 069 323</b>	1	0.036	75	41	50
40	<b>761 069 324</b>	1	0.060	83	50	61
50	<b>761 069 325</b>	1	0.092	88	61	73
63	<b>761 069 326</b>	1	0.146	93	76	90
75	<b>761 069 327</b>	1	0.292	153	90	106
90	<b>761 069 328</b>	1	0.471	167	109	125
110	<b>761 069 329</b>	1	0.745	180	131	150

# Adapter on thread and valves

6214

## Adaptor with male thread

- Spigot for electrofusion - male thread

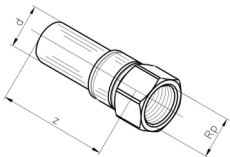


d [mm]	R [inch]	Code	SP	kg	h [mm]
16	½	<b>761 069 385</b>	1	0.082	91
20	½	<b>761 069 386</b>	1	0.093	93
20	¾	<b>761 069 387</b>	1	0.115	96
25	¾	<b>761 069 388</b>	1	0.134	103
25	1	<b>761 069 389</b>	1	0.171	105
32	1	<b>761 069 390</b>	1	0.207	105

6215

## Adaptor with female thread

- Spigot for electrofusion - female thread

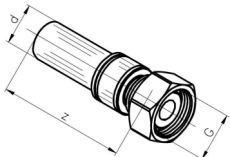


d [mm]	Rp [inch]	Code	SP	kg	z [mm]
16	½	<b>761 069 360</b>	1	0.086	75
20	½	<b>761 069 361</b>	1	0.099	77
20	¾	<b>761 069 362</b>	1	0.136	78
25	¾	<b>761 069 363</b>	1	0.145	83
25	1	<b>761 069 364</b>	1	0.184	85
32	1	<b>761 069 365</b>	1	0.209	85

6217

## Adaptor with loose union nut, flat seal, with centering

- Spigot for electrofusion - female thread
- Including gasket, tesnit blue free of asbestos, according to DIN 3754



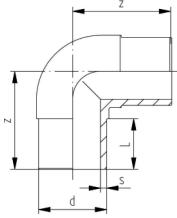
d [mm]	G [inch]	Code	SP	kg	z [mm]
16	½	<b>761 069 380</b>	1	0.086	83
20	¾	<b>761 069 382</b>	1	0.128	85

# Fittings for But Fusion

5202

## elbow 90°

\* available end of year 2006

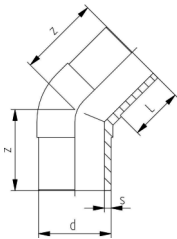


d [mm]	Code	SP	kg	z [mm]	L [mm]
125	<b>761 065 258</b>	1	1.600	182	93
160	<b>761 065 259</b>	1	3.150	213	104
*225	<b>761 065 260</b>	1	6.500	270	122

5203

## elbow 45°

\* available end of year 2006

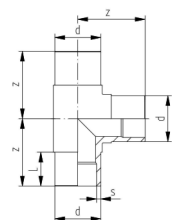


d [mm]	Code	SP	kg	z [mm]	L [mm]
125	<b>761 065 261</b>	1	1.600	140	92
160	<b>761 065 262</b>	1	2.500	162	102
*225	<b>761 065 263</b>	1	5.500	200	122

5201

## Tee 90° equal

\* available end of year 2006

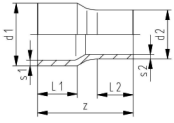
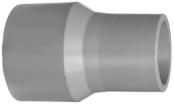


d [mm]	Code	SP	kg	z [mm]	L [mm]
125	<b>761 065 255</b>	1	2.440	183	93
160	<b>761 065 256</b>	1	4.400	210	102
*225	<b>761 065 257</b>	1	11.500	270	122

5205

**reducer**

\* available end of year 2006



d1 [mm]	d2 [mm]	Code	SP	kg	z [mm]	L1 [mm]	L2 [mm]
125	110	<b>761 065 267</b>	1	0.750	215	92	85
160	125	<b>761 065 268</b>	1	1.300	245	102	92
*225	160	<b>761 065 269</b>	1	2.800	280	122	102

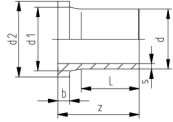
# Flange Connections for buttfusion

5204

## Flange adaptor flat

\* available end of year 2006

\*\* only in use with Butterflyvale 567 delivery on request, delivery time 6 weeks

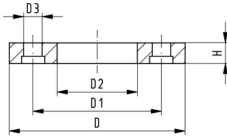


d [mm]	Code	SP	kg	z	d1 [mm]	d2 [mm]	L [mm]	b [mm]	
125	<b>761 065 264</b>	1	0.900	170	132	160	123	25	
160	<b>761 065 265</b>	1	1.800	200	176	216	147	25	
**160	<b>761 065 282</b>	1	1.800	200	176	216	147	25	
*225	<b>761 065 266</b>	1	2.200	200	235	268	122	32	

5085

## Backing flanges

\* available end of year 2006



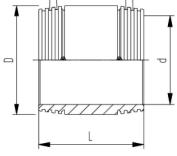
d [mm]	Code	SP	kg	d	D	D1	D2	D3	H	AL	Screws	
125	<b>761 065 279</b>	2	1.500	125	226	180	135	18	23	8	M16 x 130	
160	<b>761 065 280</b>	2	2.500	160	296	240	178	22	28	8	M20 x 140	
*225	<b>761 065 281</b>	2	3.600	225	350	295	238	22	31	8	M20 x 160	

# Fittings for Electrofusion Jointing

6240

## Electrofusion coupler

\* available end of year 2006



d [mm]	Code	SP	kg	L [mm]	
125	<b>761 069 555</b>	1	0.750	120	
160	<b>761 069 556</b>	1	1.700	190	
*225	<b>761 069 557</b>	1	4.000	220	

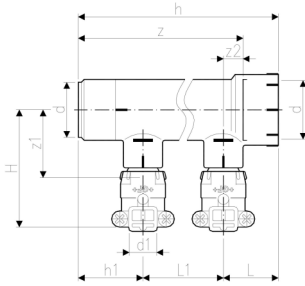
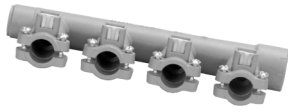


# Manifold and Accessories Manifold in Polybutylene d 25 (DN 20)

5062

## ELS Manifold PB

- Electrofusion connections



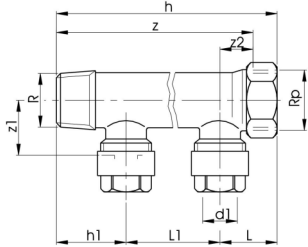
d [mm]	d1 [mm]		Code	SP	kg	L [mm]	L1 [mm]	h [mm]	h1 [mm]	H [mm]	z [mm]	z1 [mm]	z2 [mm]
25	16	single	<b>761 066 250</b>	1	0.031	31	0	63	32	60	45	36	13
25	20	single	<b>761 066 251</b>	1	0.041	39	0	78	39	64	60	35	21
25	16	double	<b>761 066 252</b>	1	0.062	31	45	108	32	60	90	36	13
25	16	triple	<b>761 066 253</b>	1	0.092	31	45	153	32	60	135	36	13
25	16	4 fold	<b>761 066 254</b>	1	0.121	31	45	198	32	60	180	36	13

# Manifolds in nonferrous metal

3270

## Manifold 90°, 3/4" (DN 20)

- Metal with compression connections

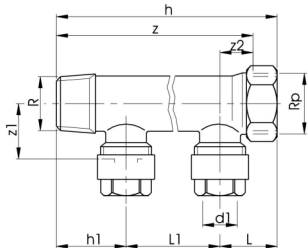


d [mm]	Rp [inch]	R [inch]		Code	SP	kg	h [mm]	h1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	z2 [mm]
16	3/4	3/4	single	<b>760 853 189</b>	5	0.207	59	31	28	0	45	24	14
20	3/4	3/4	single	<b>760 853 190</b>	5	0.264	69	36	33	0	55	26	19
16	3/4	3/4	double	<b>760 853 180</b>	5	0.383	104	31	28	45	90	24	14
16	3/4	3/4	triple	<b>760 853 181</b>	5	0.560	149	31	28	45	135	24	14
16	3/4	3/4	4-fold	<b>760 853 182</b>	5	0.718	194	31	28	45	180	24	14

3250

## Manifold 90°, 1" (DN 25)

- Metal with compression connections

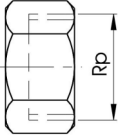


d [mm]	Rp [inch]	R [inch]		Code	SP	kg	h [mm]	h1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	z2 [mm]
16	1	1	single	<b>760 854 860</b>	5	0.210	62	34	28	0	45	29	11
20	1	1	single	<b>760 854 855</b>	5	0.260	75	42	33	0	58	29	16
16	1	1	double	<b>760 854 861</b>	1	0.460	107	34	28	45	90	29	11
16	1	1	double	<b>760 854 892</b>	5	0.640	135	42	33	60	118	29	16
16	1	1	triple	<b>760 854 862</b>	1	0.670	152	34	28	45	135	29	11
16	1	1	4 fold	<b>760 854 863</b>	1	0.860	197	34	28	45	180	29	11

# Accessories

3266

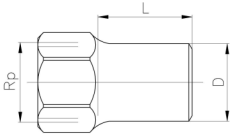
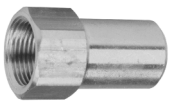
## Cap



Rp [inch]	Code	SP	kg	
3/4 1	<b>760 853 794</b>	5	0.084	
	<b>760 853 706</b>	5	0.134	

3268

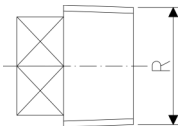
## Cap long



Rp [inch]	Code	SP	kg	L [mm]	D [mm]
3/4 1	<b>760 853 596</b>	5	0.162	34	27
	<b>760 853 527</b>	5	0.209	34	32

3267

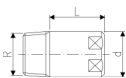
## Plug



R [inch]	Code	SP	kg	
3/4 1	<b>760 853 792</b>	5	0.050	
	<b>760 853 793</b>	5	0.084	

3264

## Plug long

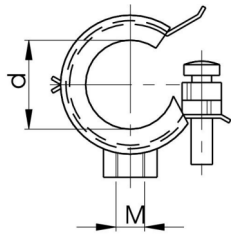
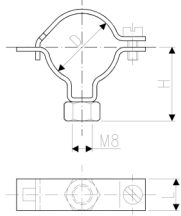


R [inch]	Code	SP	kg	D [mm]	L [mm]
3/4 1	<b>760 869 989</b>	5	0.150	27	52
	<b>760 869 990</b>	5	0.200	33	54

3292 / 3286

## Mounting bracket M8

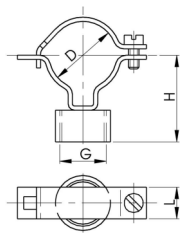
- For service cabinet



manifold	Code	SP	kg	D [mm]	H [mm]	L [mm]	Version
3292 3/4	<b>760 853 187</b>	10	0.051	26	32	15	without rubber
3286 3/4	<b>760 856 212</b>	10	0.029	26	30	18	with rubber

3293

## Mounting bracket G1/2"



manifold	Code	SP	kg	D [mm]	H [mm]	L [mm]	G [inch]
3/4	<b>760 853 128</b>	10	0.084	26	38	15	1/2

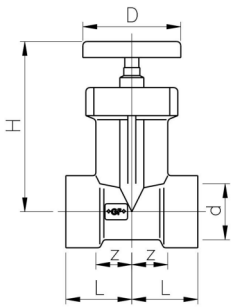
# Valves in Polybutylene (do not use as drain valve)

5070

## Valve PB

**Model:**

- Gasket: EPDM quality for potable water
- For socket fusion
- Handwheel anthracite with green/red changeover disk



(do not use as drain valve)

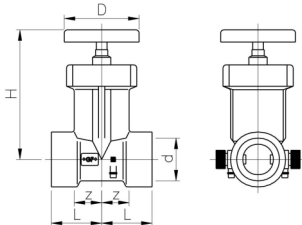
d [mm]	Code	SP	kg	H [mm]	L [mm]	z [mm]	D [mm]
20	<b>761 066 284</b>	1	0.270	86	40	25	70
25	<b>761 066 958</b>	8	0.340	86	40	22	70
32	<b>761 066 959</b>	10	0.350	91	43	23	70
40	<b>761 066 289</b>	4	1.000	155	55	33	90
50	<b>761 066 290</b>	4	1.050	155	60	35	90
63	<b>761 066 291</b>	3	1.235	155	75	47	90

5073

## Valve PB with spigot G 1/4" for drain

**Model:**

- Gasket: EPDM quality for potable water
- For socket fusion
- Handwheel anthracite with green/red changeover disk
- **Drain valve must be ordered seperately**

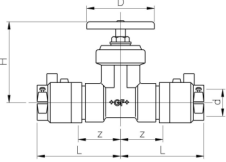


(do not use as drain valve)

d [mm]	Code	SP	kg	H [mm]	L [mm]	z [mm]	D [mm]
20	<b>761 066 272</b>	1	0.395	86	40	25	70
25	<b>761 066 273</b>	6	0.388	86	40	22	70
32	<b>761 066 274</b>	6	0.402	91	43	23	70
40	<b>761 066 275</b>	4	1.020	155	55	33	90
50	<b>761 066 276</b>	4	1.070	155	60	35	90
63	<b>761 066 277</b>	3	1.260	155	75	47	90

6211

**Valve PB**



**Model:**

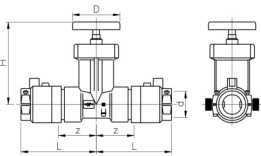
- Gasket: EPDM quality for potable water
- For electrofusion
- Handwheel anthracite with green/red changeover disk

(do not use as drain valve)

d [mm]	Code	SP	kg	H [mm]	L [mm]	z [mm]	D [mm]
20 (15)	<b>761 069 330</b>	6	0.396	86	86	47	70
25 (20)	<b>761 069 331</b>	1	0.410	86	89	47	70
32 (25)	<b>761 069 332</b>	1	0.440	91	94	52	70
40 (32)	<b>761 069 333</b>	2	1.140	155	112	65	90
50 (40)	<b>761 069 334</b>	2	1.270	155	120	71	90
63 (50)	<b>761 069 335</b>	1	1.599	155	141	90	90

6208

**Valve PB with spigot G1/4" for drain**



**Model:**

- Gasket: EPDM quality for potable water
- For electrofusion
- Handwheel anthracite with green/red changeover disk
- Drain valve must be ordered separately

(do not use as drain valve)

d [mm]	Code	SP	kg	H [mm]	L [mm]	z [mm]	D [mm]
20 (15)	<b>761 069 294</b>	6	0.445	86	86	47	70
25 (20)	<b>761 069 295</b>	6	0.452	86	89	47	70
32 (25)	<b>761 069 296</b>	6	0.494	91	94	52	70
40 (32)	<b>761 069 297</b>	2	1.160	155	112	65	90
50 (40)	<b>761 069 298</b>	2	1.290	155	120	71	90
63 (50)	<b>761 069 299</b>	1	1.624	155	141	90	90

5074

**Drain valve and plug**

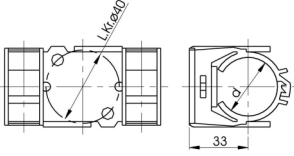


G [inch]	Code	SP	kg
¼	<b>761 066 328</b>	1	0.059

5096

## Valve bracket for valve PB without drain

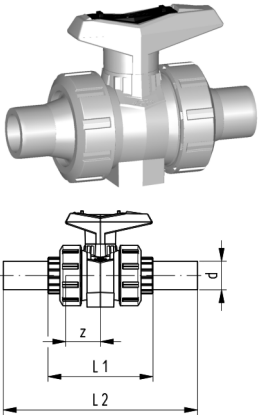
- For GIS or wall mounting



d-d [mm]	Code	SP	kg	
20 - 25	<b>761 066 325</b>	1	0.190	

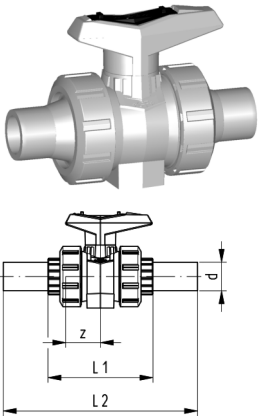
# Ball valves

## Ball valve type 546 PVC-C / PB-Spigots



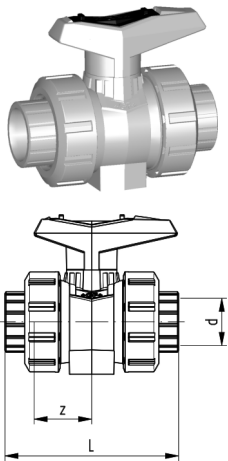
d [mm]	DN [mm]	PN	EPDM Code	SP	kg	L1 [mm]	L2 [mm]	z [mm]
20	15	16	<b>761 066 343</b>	1	0.178	95	190	33
25	20	16	<b>761 066 344</b>	1	0.267	108	208	38
32	25	16	<b>761 066 345</b>	1	0.403	118	218	39
40	32	16	<b>761 066 346</b>	1	0.724	137	250	47
50	40	16	<b>761 066 347</b>	1	0.988	147	263	49
63	50	16	<b>761 066 348</b>	1	1.828	168	288	46

## Ball valve type 546 PP / PB-Spigots



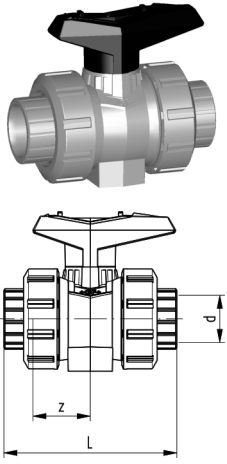
d [mm]	DN [mm]	PN	EPDM Code	SP	kg	L1 [mm]	L2 [mm]	z [mm]
20	15	16	<b>760 000 343</b>	1	0.133	95	190	33
25	20	16	<b>760 000 344</b>	1	0.202	108	208	38
32	25	16	<b>760 000 345</b>	1	0.293	118	218	39
40	32	16	<b>760 000 346</b>	1	0.504	137	250	47
50	40	16	<b>760 000 347</b>	1	0.718	147	263	49
63	50	16	<b>760 000 348</b>	1	1.323	168	288	46

## Ball valve type 546 PVC-C / PB-Flange Adaptor



d [mm]	DN [mm]	PN	EPDM Code	SP	kg	L [mm]	Z [mm]
20	15	16	<b>761 066 337</b>	10	0.160	95	33
25	20	16	<b>761 066 338</b>	1	0.245	108	38
32	25	16	<b>761 066 339</b>	1	0.365	118	39
40	32	16	<b>761 066 340</b>	1	0.660	137	47
50	40	16	<b>761 066 341</b>	1	0.890	147	49
63	50	16	<b>761 066 342</b>	1	1.650	168	46





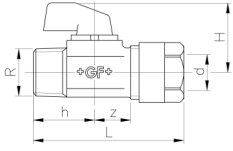
## Ball valve type 546 PP / PB-Flange Adaptor

d [mm]	DN [mm]	PN	EPDM Code	SP	kg	L [mm]	Z [mm]
20	15	16	<b>760 000 337</b>	1	0.115	95	33
25	20	16	<b>760 000 338</b>	1	0.180	108	38
32	25	16	<b>760 000 339</b>	1	0.255	118	39
40	32	16	<b>760 000 340</b>	1	0.440	137	47
50	40	16	<b>760 000 341</b>	1	0.610	147	49
63	50	16	<b>760 000 342</b>	1	1.145	168	46

# Valves in Metal

3430

## Ball valve with male thread

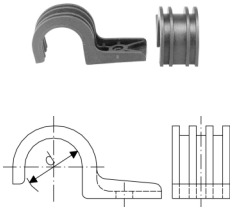


d [mm]	R [inch]	Code	SP	kg	L [mm]	H [mm]	h [mm]	z [mm]
16	1/2	<b>760 853 229</b>	2	0.265	70	32	28	20
20	3/4	<b>760 853 230</b>	2	0.320	78	32	32	20

# Pipe supports and brackets

3913

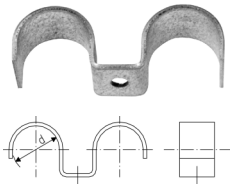
## Single Pipe clip, plastic



d [mm]	Code	SP	kg		
16	<b>760 853 627</b>	50	0.006		

3915

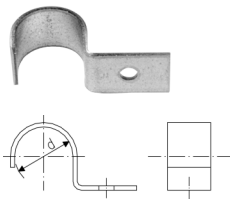
## Dual Pipe clip, metal



d [mm]	Code	SP	kg		
16	<b>760 853 628</b>	50	0.040		

3920

## Single Pipe clip, metal

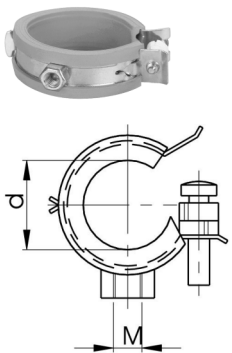


d [mm]	Code	SP	kg		
16	<b>760 853 254</b>	50	0.027		
20	<b>760 853 567</b>	50	0.031		
25	<b>760 854 951</b>	50	0.042		

5091

## Pipe clamp

- d16 - d75 = M8
- d90 - d110 = M10

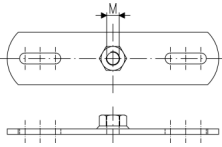
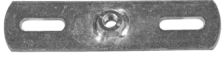


d [mm]	Code	SP	kg		
16	<b>761 066 296</b>	50	0.040		
20	<b>761 066 297</b>	50	0.050		
25	<b>761 066 298</b>	50	0.051		
32	<b>761 066 299</b>	50	0.060		
40	<b>761 066 300</b>	50	0.081		
50	<b>761 066 301</b>	50	0.091		
63	<b>761 066 302</b>	50	0.132		
75	<b>761 066 303</b>	50	0.152		
90	<b>761 066 304</b>	25	0.191		
110	<b>761 066 305</b>	25	0.232		

5092

## Support plate

- For fixing point

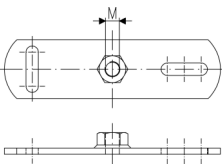


Size	Code	SP	kg	s [mm]	M
1	<b>761 066 731</b>	10	0.135	-63	M10
2	<b>761 066 732</b>	10	0.170	-94	M10
3	<b>761 066 733</b>	10	0.211	-125	M10
4	<b>761 066 734</b>	10	0.253	-162	M10

5093

## Base plate

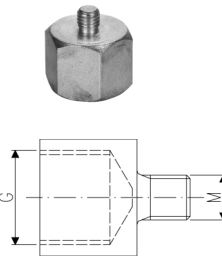
- \* for fixing point



	Code	SP	kg	M
	<b>761 066 741</b>	50	0.159	M8
*	<b>761 066 735</b>	50	0.170	M10
*	<b>761 066 311</b>	20	0.181	G1/2

5094

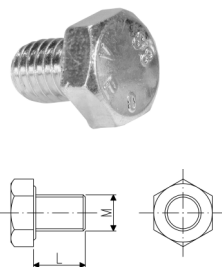
## Reducer



M	G [inch]	Code	SP	kg
M8	½	<b>761 066 318</b>	20	0.055
M10	½	<b>761 066 306</b>	20	0.055

5095

## Cap screw

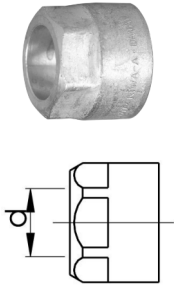


M	Code	SP	kg	L [mm]
M8	<b>761 066 307</b>	100	0.009	10

# Spare Parts - Compression Joint

3800

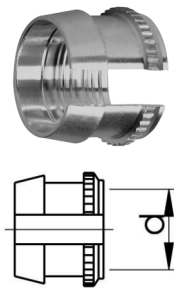
## Union nut



d [mm]	Code	SP	kg
16	<b>760 853 018</b>	5	0.032
20	<b>760 853 071</b>	2	0.043

3801

## Clamping ring

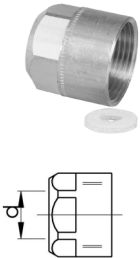


d [mm]	Code	SP	kg
16	<b>760 853 019</b>	5	0.014
20	<b>760 853 072</b>	2	0.020

3211

## Cap

- Including seal



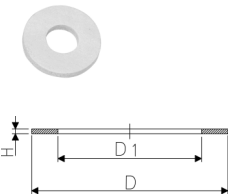
d [mm]	Code	SP	kg
16	<b>760 853 110</b>	5	0.051
20	<b>760 853 150</b>	5	0.094

3803

## Seal for cap

Model:

- Material: Tesnit UNI blue, free of asbestos according to DIN 3754

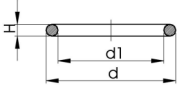


d-d [mm]	Code	SP	kg	D [mm]	D1 [mm]	H [mm]
16 - 20	<b>760 853 021</b>	5	0.003	15	6	3

# Spare parts Flange adaptor PB

## O-Ring, EPDM quality for potable water

5080



d [mm]	Code	SP	kg	d1 [mm]	D [mm]	H [mm]	
16	<b>761 066 558</b>	-	0.002	19	26	4	
20	<b>761 066 124</b>	-	0.002	23	31	4	
25	<b>761 066 125</b>	-	0.002	28	35	4	
32	<b>761 066 126</b>	-	0.003	36	43	4	
40	<b>761 066 127</b>	-	0.003	44	55	5	
50	<b>761 066 128</b>	-	0.004	53	64	5	
63	<b>761 066 129</b>	-	0.007	69	80	5	
75	<b>761 070 036</b>	-	0.006	82	93	5	
90	<b>761 070 037</b>	-	0.008	101	112	5	
110	<b>761 070 038</b>	-	0.016	120	134	7	

# Spar parts PB Valves

3420

## Slide to valve PB



d-d [mm]	Code	SP	kg	
20 - 32	<b>761 066 335</b>	1	0.028	
40 - 63	<b>761 066 336</b>	1	0.114	

# Tools for Compression Joints

3905

## Assembly tongs



d [mm]	Code	SP	kg
16 - 20	<b>760 853 743</b>	1	0.420
25	<b>760 869 950</b>	1	0.418

3911

## Cutter for protective piper



Code	SP	kg
<b>760 853 273</b>	1	0.087

3917

## Calibrating tool for pipes PB

Available as long as stock exist



d [mm]	Code	SP	kg
16	<b>760 853 379</b>	1	0.320
20	<b>760 853 380</b>	1	0.329
25	<b>760 853 381</b>	1	0.363

3954

## Ratched spanner

- For tightening and loosening of compression fittings d16 and d20



SW [mm]	d [mm]	Code	SP	kg
24	16	<b>760 854 916</b>	1	0.280
27	20	<b>760 854 917</b>	1	0.586

3948

## Spanner

- Tool to change the heating bushes



SW [mm]	Code	SP	kg
6	<b>760 854 906</b>	1	0.070



# Machines and Tools for Socket Fusion Jointing

5100



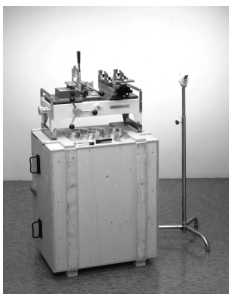
## Heating element, complete 230V

- Consisting of: Metal case, Heating element with electronic temperature regulation Voltage 230 Volt, Power 800W, Heating bushes d16-d63, Tempil sticks 253°C and 274°C, Timer, Template, Gloves, Support, Grip, Pipe shears, Pipe cutter d32-d63, Chamfering too
- \* only for CH

Type with 110 volt on request

d-d [mm]	Code	SP	kg		
16 - 63	761 066 802	-	11.300		

5120



## Socket fusion machine

- Consisting of: packed on wooden case, to use as working table, prism clamp device for pipes, round clamping units for fittings d16-d63, pipe support adjustable,
- **Without heating element**

d-d [mm]	Code	SP	kg		
16 - 63	761 066 841	-	55.000		

5121



## Heating bushes set

- Consisting of: Metal case, Heating bushes d16-d63, Tempil sticks 253°C and 274°C, Timer, Template, Gloves, Instruction for socket fusion jointing

d-d [mm]	Code	SP	kg		
16 - 63	761 066 754	-	6.470		

5101

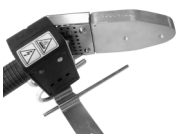


## Heating element 230V

- Consisting of: electronic temperature regulation, Voltage 230V, Power 800W, Instruction for the socket fusion jointing
- \* only for CH

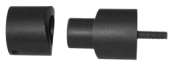
Execution with 110V on request

d-d [mm]	Code	SP	kg		
16 - 63	761 066 804	-	1.550		



## Heating element 30° 230V

D [mm]	Code Code	SP	kg		
50 - 110	761 066 877	1	1.550		



## Heating bushes for weld-in-saddle

d - d1 [mm]	Code Code	SP	kg
50 - 32	<b>761 066 856</b>	1	0.320
63 - 32	<b>761 066 857</b>	1	0.320
75 - 32	<b>761 066 858</b>	1	0.320
90 - 32	<b>761 066 859</b>	1	0.320
110 - 32	<b>761 066 860</b>	1	0.320

5102

## Support

- As a storage possibility for Handheld welding torch



Code	SP	kg
<b>761 066 801</b>	1	0.970

5110

## Metal case, empty

- For heating element and accessories



Code	SP	kg
<b>761 066 752</b>	-	4.150

5130

## Heating bushes

- The INSTAFLEX heating bushes used for jointing Polybutene d75, d90, d110 are also available at +GF+



d [mm]	Code	SP	kg
16	<b>761 066 756</b>	1	0.080
20	<b>761 066 757</b>	1	0.120
25	<b>761 066 758</b>	1	0.150
32	<b>761 066 759</b>	1	0.210
40	<b>761 066 760</b>	1	0.310
50	<b>761 066 761</b>	1	0.450
63	<b>761 066 762</b>	1	0.600

5311

## Tangit KS-Cleaning Tissues



Code	SP	kg
<b>799 298 024</b>	8	0.380

3908

## Pipe shears



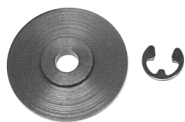
d-d [mm]	Code	SP	kg
16 - 25	<b>760 853 279</b>	1	0.269

5300

**Pipe cutter**

d-d [mm]	Code	SP	kg
32 - 63	<b>761 066 792</b>	1	0.700
75 - 110	<b>761 066 834</b>	1	1.430

5301

**Spare blades for Pipe cutter**

d-d [mm]	Code	SP	kg
32 - 63	<b>761 066 793</b>	1	0.005
75 - 110	<b>761 066 835</b>	1	0.010

5302

**Chamfering tool**

d-d [mm]	Code	SP	kg
25 - 63	<b>761 066 794</b>	1	0.780
75 - 110	<b>761 066 836</b>	1	0.830

5303

**Spare blades for Chamfering tool**

d-d [mm]	Code	SP	kg
25 - 110	<b>761 066 795</b>	1	0.016

5314

**Template, compression and fusion joints**

- To mark the clamp and coupler



d-d [mm]	Code	SP	kg
16 - 63	<b>761 066 800</b>	1	0.040

5310

**Tempil sticks**

Temperature [°C]	Code	SP	kg
253	<b>761 066 796</b>	1	0.010
274	<b>761 066 797</b>	1	0.020

5312

**Timer**

Code	SP	kg	
761 066 798	1	0.042	

5320

**Gloves**

Code	SP	kg	
761 066 799	1	0.115	

**Drill bitt for weld-in-saddle**

\* Not available from stock



d [mm]	Code Code	SP	kg	
*20 - 25	<b>761 066 848</b>	-	0.140	
32	<b>761 066 849</b>	-	0.230	

# Electrofusion control unit

6000



## Electrofusion control unit Type HWSG-3

- \* only for CH
- Technical data: Voltage 230V, Power max 1400W, Frequency 50/60Hz, Protection class IP 54, Main connection (4m) with Euro standard plug

d-d [mm]	Code	SP	kg	Dimensions [mm]	Size [mm]
16 - 110	<b>761 069 021</b>	-	4.070	294	324
*16 - 110	<b>761 069 020</b>	-	4.070	294	324

6001



## Welding cable angle, for electrofusion fittings for HWSG-3

d [mm]	Code	SP	kg	Length [m]
16 / 110	<b>761 069 006</b>	1	0.512	3.00

6001



## Sparepart welding cable for electrofusion fittings

d [mm]	Code	SP	kg	Length [m]
16 / 110	<b>761 069 016</b>	1	0.300	3.00

6006



## Ball-head socket wrench crossbar handle

d-d [mm]	Code	SP	kg	SW [mm]
16 - 63	<b>761 066 843</b>	2	0.038	3
75 - 110	<b>761 066 844</b>	2	0.038	4

6007



## 1/4" screwdriver bit with ball-head

d-d [mm]	Code	SP	kg	SW [mm]
16 - 63	<b>761 066 845</b>	5	0.007	3
75 - 110	<b>761 066 846</b>	5	0.007	4

5311



## Tangit KS-Cleaning Tissues

- For plastic welding joints PB, PE, PP, PVDF

Code	SP	kg
<b>799 298 024</b>	8	0.380



## Template, electrofusion jointing

d-d [mm]	Code	SP	kg	
16 - 110	761 069 602	1	0.065	

# Execution 110V - 240V switchable only for countries with 110V mains supply.

6000



## Electrofusion control unit Type HWSG-3

- Including welding cable for fittings without tool case, primary cable 110V, primary cable 240V
- Voltage 110-240 V, Power max. 1500W
- **Technical specifications**
- Frequency 47/65Hz
- Protection class IP 54

Code	SP	kg
761 069 015	-	11.500

6001



## Welding cable for electrofusion fittings

Code	SP	kg
761 069 011	1	0.300

6005



## Primary cable 110V

	Code	SP	kg	Length [mm]
110V	761 069 012	1	0.400	4

6005



## Primary cable 240V

	Code	SP	kg	Length [mm]
	761 069 013	1	0.380	4





# i FIT

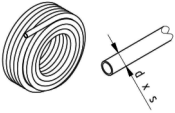
		Page
	i FIT Pipes for sanitary and heating	66
	Adaptor	68
	Outlet joints without box	69
	Accessories for pipe outlets	70
	Manifold	71
	Special Ship Building Parts for Cabins	72
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	Adaptor on thread	77
	Tools	79

# i FIT

## Pipes for sanitary and heating

### Pipe multilayer without protective pipe

4500



- Packed in cardboard boxes
- Pipe multilayer in coils without protective pipe

for sanitary and heating

d [mm]	s [mm]	Code	SP	kg/m
16	2.0	<b>762 101 000</b>	100	0.118
20	2.0	<b>762 101 001</b>	50	0.154

4510

### Pipe multilayer in bars of 5,0 m

- Packed in cardboard boxes



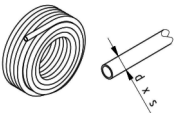
for sanitary and heating

d [mm]	s [mm]	Code	SP	kg/m
16	2.0	<b>762 101 005</b>	120	0.118
20	2.0	<b>762 101 006</b>	45	0.154
25	2.5	<b>762 101 007</b>	50	0.284
32	3.0	<b>762 101 008</b>	20	0.354

4516

### Pipe PB without protective pipe

- Packed in cardboard boxes
- Pipe PB in coils without protective pipe



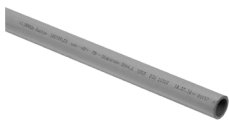
for sanitary

d [mm]	s [mm]	Code	SP	kg/m
16	2.0	<b>762 101 126</b>	-	0.088
20	2.0	<b>762 101 127</b>	-	0.115

4515

### Pipe PB in bars of 5 meters

for sanitary

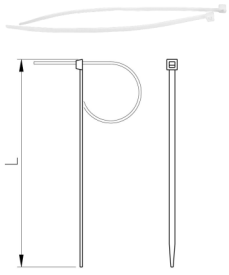


d [mm]	s [mm]	Code	SP	kg/m
25	2.5	<b>762 101 162</b>	50	0.178
32	3.0	<b>762 101 163</b>	20	0.272

3930

## Pipe binder

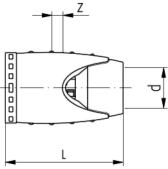
- From the +GF+ INSTAFLEX range



d-d [mm]	Code	SP	kg/m	L [mm]	
16 - 40	<b>760 853 283</b>	100	0.001	200	
50 - 75	<b>760 853 284</b>	100	0.003	300	
90 - 110	<b>760 854 984</b>	100	0.001	430	

# Adaptor

4520



## Adaptor

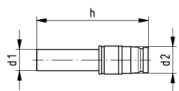
d [mm]	Code	SP	kg	z [mm]	L [mm]
16	<b>762 101 030</b>	10	0.023	5	48
20	<b>762 101 031</b>	10	0.030	5	49
25	<b>762 101 034</b>	5	0.067	8	62
32	<b>762 101 035</b>	5	0.088	8	63

4525

## Cap for adaptor



d [mm]	s [mm]	Code	SP	kg
16	2.0	<b>762 101 017</b>	5	0.006
25	2.5	<b>762 101 027</b>	5	0.013



## iFIT - INSTAFLEX Adaptor

d2 [mm]	d1 [mm]	Code	SP	kg	h [mm]
16 / 20	16	<b>762 101 057</b>	1	0.059	84
16 / 20	20	<b>762 101 058</b>	1	0.071	86
25 / 32	25	<b>762 101 059</b>	1	0.145	101
25 / 32	32	<b>762 101 060</b>	1	0.177	101

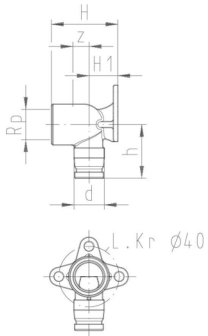
# Outlet joints without box

4530

## Single pipe outlet

Model:

- applicable for lihg and wood construction



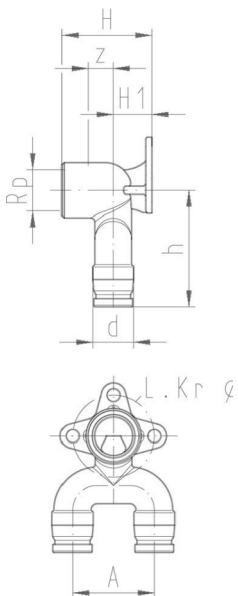
d [mm]	Rp [inch]	Code	SP	kg	H [mm]	H1 [mm]	h [mm]	z [mm]	
16 / 20	½	<b>762 101 018</b>	10	0.141	44	19	36	12	
16 / 20	½	<b>762 101 070</b>	5	0.201	64	19	36	32	
16 / 20	¾	<b>762 101 019</b>	2	0.168	44	19	39	11	

4535

## Dual pipe outlet

Model:

- applicable for lihg and wood construction

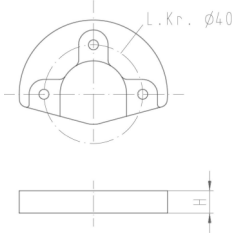


d [mm]	Rp [inch]	Code	SP	kg	H [mm]	H1 [mm]	h [mm]	z [mm]	
16 / 20	½	<b>762 101 022</b>	2	0.238	44	19	57	12	
16 / 20	½	<b>762 101 071</b>	2	0.298	64	19	57	32	

# Accessories for pipe outlets

4540

## Sound proofing for pipe outlet



	Code	SP	kg	
Rubber isolator	<b>762 101 033</b>	10	0.010	



## Sound proofing for pipe outlet

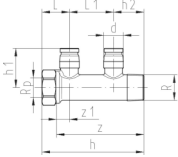
- From the +GF+ INSTAFLEX range
- single or double

	Code	SP	kg	
Set single	<b>762 101 036</b>	5	0.073	
Set double	<b>762 101 037</b>	2	0.115	

# Manifold

4550

## Manifold module



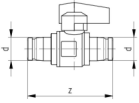
d [mm]	Rp [inch]	R [inch]	outlet	Code	SP	kg			
16 / 20	3/4	3/4	double	<b>762 101 048</b>	2	0.280			
16 / 20	3/4	3/4	triple	<b>762 101 049</b>	2	0.389			
16 / 20	3/4	3/4	4-fold	<b>762 101 053</b>	2	0.527			

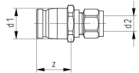
d [mm]	Rp [inch]	h [mm]	h1 [mm]	h2 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	
16 / 20	3/4	104	40	31	28	45	90	14	
16 / 20	3/4	149	40	31	28	45	135	14	
16 / 20	3/4	194	40	31	28	45	180	14	

# Special Ship Building Parts for Cabins

## iFIT - Ball valve

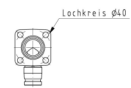
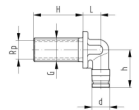


d [mm]	Code	SP	kg	Z [mm]
16 / 20	<b>762 101 054</b>	2	0.250	73



## iFIT - Copper modul

d1 [mm]	d2 [mm]	Code	SP	kg	z [mm]
16 / 20	10	<b>762 101 089</b>	10	0.070	22



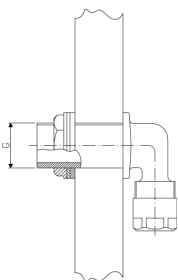
## Single pipe outlet L55 1/2" - 3/4"

d [mm]	Rp [inch]	Code	SP	kg	L [mm]	H [mm]	h [mm]	G [inch]
16 / 20	1/2	<b>762 101 047</b>	1	0.250	20	55	42	3/4

3067

## Fastening set

- Consists of: Union nut, washer, seal



G [inch]	Code	SP	kg
3/4	<b>760 854 699</b>	10	0.045

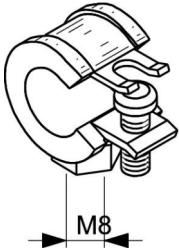


# Accessories from the GF INSTAFLEX range

3286

## Mounting bracket M8

- From the +GF+ INSTAFLEX range

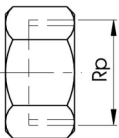


Code	SP	kg	
760 856 212	10	0.029	

3266

## Cap

- From the +GF+ INSTAFLEX range

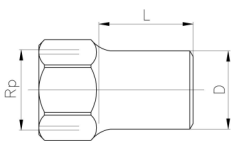
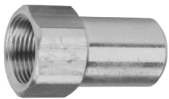


Rp [inch]	Code	SP	kg	
3/4	760 853 794	5	0.084	
1	760 853 706	5	0.134	

3268

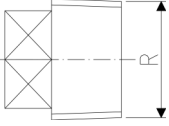
## Cap long

- From the +GF+ INSTAFLEX range



Rp [inch]	Code	SP	kg	D [mm]	L [mm]	
3/4	760 853 596	5	0.162	27	34	

3267

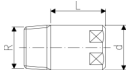
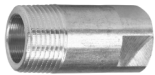


## Plug

- From the +GF+ INSTAFLEX range

R [inch]	Code	SP	kg	
3/4 1	<b>760 853 792</b>	5	0.050	
	<b>760 853 793</b>	5	0.084	

3264

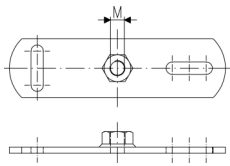


## Plug long

- From the +GF+ INSTAFLEX range

R [inch]	Code	SP	kg	D [mm]	L [mm]	
3/4	<b>760 869 989</b>	5	0.150	27	52	

5093



## Base plate

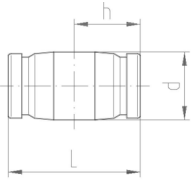
- From the +GF+ INSTAFLEX range

Code	SP	kg	M	
<b>761 066 741</b>	50	0.159	M8	

# Fittings

4585

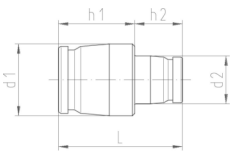
## Socket/Reducing bush module



d [mm]	Code	SP	kg	L [mm]	h [mm]
16 / 20	<b>762 101 044</b>	10	0.064	39	20
*25 / 32	<b>762 101 175</b>	5	0.023	56	28

4586

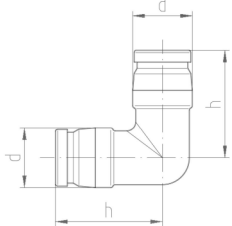
## Reducing bush modul



d1 [mm]	d2 [mm]	Code	SP	kg	L [mm]	h1 [mm]	h2 [mm]
*32 / 25	20 / 16	<b>762 101 177</b>	2	0.018	52	32	20

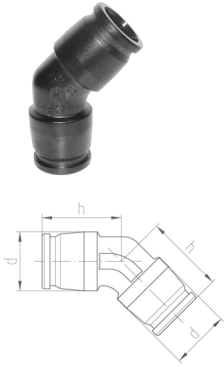
4590

## Elbow 90° modul



d [mm]	Code	SP	kg	h [mm]
16 / 20	<b>762 101 046</b>	10	0.012	36
*25 / 32	<b>762 101 179</b>	5	0.042	54

4591

**Elbow 45° modul**

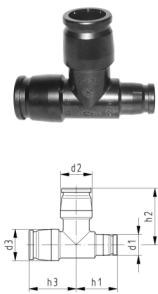
d [mm]	Code	SP	kg	h [mm]	
*25 / 32	<b>762 101 180</b>	5	0.033	40	

4595

**Tee equal modul**

d [mm]	Code	SP	kg	h [mm]	h1 [mm]	
16 / 20	<b>762 101 042</b>	10	0.015	31	37	
*25 / 32	<b>762 101 181</b>	5	0.053	45	54	

4600

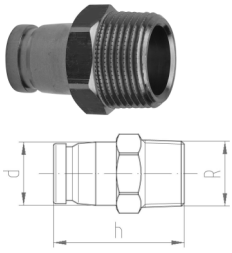
**Tee reduced modul**

d1 [mm]	d2 [mm]	d3 [mm]	Code	SP	kg	H1 [mm]	H2 [mm]	H3 [mm]	
*16 / 20	25 / 32	25 / 32	<b>762 101 183</b>	2	0.043	39	54	45	
*25 / 32	16 / 20	25 / 32	<b>762 101 185</b>	2	0.043	45	48	45	
*16 / 20	16 / 20	25 / 32	<b>762 101 187</b>	2	0.033	39	48	45	

# Adaptor on thread

4605

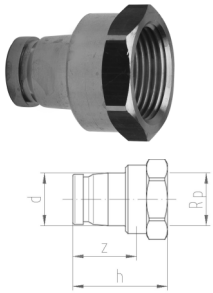
## Adaptor male modul



d [mm]	R [inch]	Code	SP	kg	h [mm]
16 / 20	1/2	<b>762 101 038</b>	10	0.061	42
16 / 20	3/4	<b>762 101 039</b>	10	0.078	43
25 / 32	3/4	<b>762 101 091</b>	2	0.144	51
25 / 32	1	<b>762 101 092</b>	2	0.189	55

4610

## Adaptor female modul



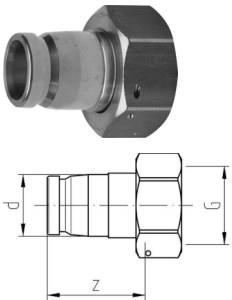
d [mm]	Rp [inch]	Code	SP	kg	h [mm]	z [mm]
16 / 20	1/2	<b>762 101 040</b>	10	0.067	36	23
16 / 20	3/4	<b>762 101 041</b>	10	0.087	39	24
25 / 32	3/4	<b>762 101 093</b>	2	0.131	45	31
25 / 32	1	<b>762 101 094</b>	2	0.163	49	32

4615

## Union flat seal modul

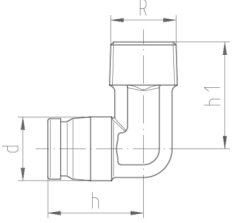
Model:

- supplied with sealing



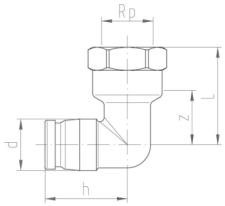
d [mm]	G [inch]	Code	SP	kg	z [mm]
16 / 20	1/2	<b>762 101 088</b>	2	0.080	41
16 / 20	3/4	<b>762 101 056</b>	2	0.090	35
25 / 32	3/4	<b>762 101 095</b>	2	0.170	48
25 / 32	1	<b>762 101 096</b>	2	0.210	55
25 / 32	1 1/4	<b>762 101 097</b>	2	0.250	48
25 / 32	1 1/2	<b>762 101 098</b>	2	0.307	50

4620

**Adaptor elbow male thread-modul**

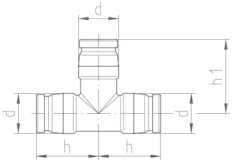
d [mm]	R [inch]	Code	SP	kg	h [mm]	h1 [mm]	
16 / 20	½	<b>762 101 051</b>	10	0.077	30	34	
16 / 20	¾	<b>762 101 052</b>	10	0.092	30	35	
25 / 32	¾	<b>762 101 099</b>	2	0.204	45	43	
25 / 32	1	<b>762 101 100</b>	2	0.213	45	45	

4630

**Adaptor elbow female thread-modul**

d [mm]	Rp [inch]	Code	SP	kg	h [mm]	L [mm]	z [mm]	
16 / 20	½	<b>762 101 101</b>	10	0.103	32	38	25	
16 / 20	¾	<b>762 101 105</b>	10	0.129	36	40	22	

4625

**Adaptor Tee female thread-modul**

d [mm]	Rp [inch]	Code	SP	kg	h [mm]	h1 [mm]	z [mm]	
16 / 20	½	<b>762 101 055</b>	5	0.131	32	38	25	
25 / 32	¾	<b>762 101 103</b>	2	0.213	43	50	36	

## Tools

4635

### Tool set for pipes ML- and PB



d [mm]	Code	SP	kg
16 / 20	<b>762 101 122</b>	1	1.170
25 / 32	<b>762 101 133</b>	1	1.466

4640

### Chamfering tool for pipes ML- and PB



d [mm]	Code	SP	kg
16	<b>762 101 116</b>	-	0.191
20	<b>762 101 120</b>	-	0.210
25	<b>762 101 125</b>	-	0.238
32	<b>762 101 132</b>	-	0.315

4645

### Pipe shears d16-20 for pipes ML- and PB



d	Code	SP	kg
16 / 20	<b>762 101 108</b>	-	0.321
Spare blades	<b>762 101 109</b>	1	0.019

5300

### Pipe cutter d16-32 for pipes ML- and PB



d	Code	SP	kg
16 - 32	<b>762 101 117</b>	-	0.400
Spare blades	<b>762 101 118</b>	1	0.006

4650

### Pipe bending tool for pipes ML



d [mm]	Code	SP	kg
16	<b>762 101 112</b>	-	0.440
20	<b>762 101 113</b>	-	0.643
25	<b>762 101 114</b>	-	0.657
32	<b>762 101 115</b>	-	0.700

4665

### Pipe draw coupling



d [mm]	Code	SP	kg
16	<b>762 101 154</b>	1	0.044
20	<b>762 101 155</b>	1	0.090

4651



## Tool belt

**Note:**

- Without tools

Code	SP	kg	
762 101 119	1	0.540	





# Polyethylene PE 100 – the third Generation of polyethylene

## First supplier of the new PE 100 in industrial pipeline engineering

PE 100 (MRS 10) is a 3<sup>rd</sup> generation polyethylene. It has the advantage of featuring substantially improved long-term creep values, particularly in the intermediate temperature range up to 60°C.

Depending on the basic design factor (formerly referred to as safety factor), the reliable continuous working pressure can, for example, be increased from 12.5 to 16 bar with the same wall thickness.

The suitability of polyethylene in relation to the conveyed medium, in other words the chemical resistance, can be deter-

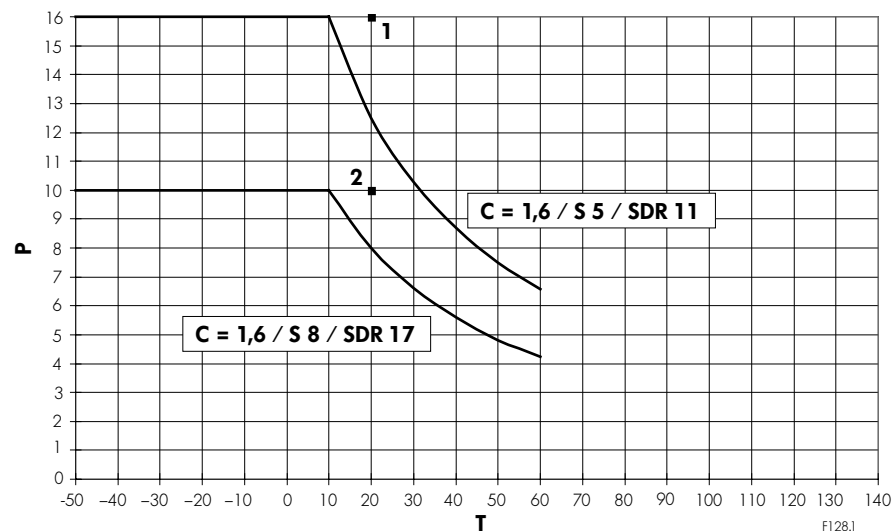
mined with the aid of the «List of chemical resistance of plastics and elastomers in pipeline construction», which is available separately.

Pipes and fittings in polyethylene PE 100 by George Fischer can be jointed trouble-free with PE 80. We offer plant builders a complete range of plastic piping components, such as pipes, fittings and adapters for our manually operated and actuated valves, all in one material.

The PE types used by George Fischer are suitable for applications in the food-stuff industry and approved for drinking water applications.

## Application limit of PE 100 pipes and fittings (Eltex TUB121, CRP 100)

(25-year values with design factor C included in the calculation = 1.6 resp. 1.25)



- 1 Design Factor C=1.25/S 5/ SDR 11 applies to 20 °C water/ 50 years  
 2 Design Factor C=1.25/ S 8.3/SDR 17.6 applies to 20 °C water/50 years  
 P Permissible pressure in bar  
 T Temperature in °C

## Marking

PE 100 fittings by George Fischer are marked as follows:

- **+GF+**
- PE 100
- Outside pipe diameter (e. g. 315)
- Pressure marking:
  - not marked = PN16
  - S5/PN16 = PN16
  - S8/PN 6 = PN10
  - SDR11 = PN16
  - SDR17,6 = PN10







PE 100 fusion fittings and pipes by George Fischer are:

- protected against UV radiation, using carbon black and ..stabilizers.

## Fusion compatibility of various PE types

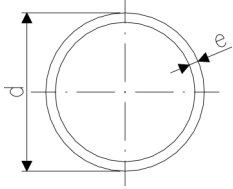
The results from the 80°C/165h test (=5.5 Mpa for PE 100/ 4.6 Mpa for PE 80) were entirely positive for all the methods of fusion jointing.

# PE INDUSTRIAL SYSTEMS

		Page
	PE100 Pipes	84
	Butt Fusion Fittings PE100	85
	Adaptor Fittings for Socket Fusion PE 80	92
	Spigot Fittings in PE 100	94
	Unions for Socket Fusion	99
	ELGEF® Plus Electrofusion Fittings	101

# PE100 Pipes

93 01 71



## Pipes, PE100 S5/SDR11

### Model:

- Material: PE 100, Polyethylene
- Colour: RAL 9011 graphite black
- Dimension: DIN 8074
- Pipe length: 5m, with plain ends

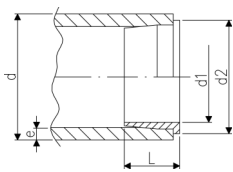
\* In these two sizes, stiffeners Code No. 733 900 006 (20 x 1,9) and 733 900 007 (25 x 2.3) must be used with socket fusion joints.

d [mm]	PN	Code	kg/m	e [mm]
*20	16	<b>193 017 156</b>	0.113	1,9
*25	16	<b>193 017 157</b>	0.172	2,3
32	16	<b>193 017 158</b>	0.274	2,9
40	16	<b>193 017 159</b>	0.434	3,7
50	16	<b>193 017 160</b>	0.672	4,6
63	16	<b>193 017 161</b>	1.060	5,8
75	16	<b>193 017 162</b>	1.480	6,8
90	16	<b>193 017 163</b>	2.140	8,2
110	16	<b>193 017 164</b>	3.190	10,0
125	16	<b>193 017 165</b>	4.120	11,4
140	16	<b>193 017 166</b>	5.130	12,7
160	16	<b>193 017 167</b>	6.730	14,6
180	16	<b>193 017 168</b>	8.500	16,4
200	16	<b>193 017 169</b>	10.500	18,2
225	16	<b>193 017 170</b>	13.300	20,5
250	16	<b>193 017 171</b>	16.300	22,7
280	16	<b>193 017 172</b>	20.400	25,4
315	16	<b>193 017 173</b>	25.900	28,6
355	16	<b>193 017 174</b>	32.800	32,2
400	16	<b>193 017 175</b>	41.700	36,3

33 90 00

## Stiffernes, PE100

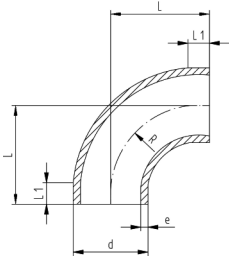
- Used as support during d20 and d25 socket fusion jointing to prevent the pipe from collapsing during the heating and jointing process.



d [mm]	Code	d1 [mm]	D2 [mm]	d2 [mm]	L [mm]	e [mm]
20	<b>733 900 006</b>	14	18	18	10	1,9
25	<b>733 900 007</b>	18	22	23	11	2,3

# Butt Fusion Fittings PE100

## Bends 90°, PE100 S5/SDR11 - Type B



### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100
- Bends with new geometry
- Injection moulding process optimised for PE100

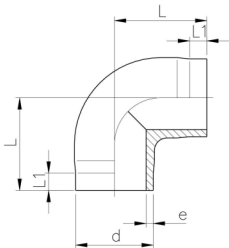
d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	--	<b>753 018 681</b>	10	0.005	28	5	1,9
25	--	<b>753 018 682</b>	10	0.010	33	7	2,3
32	--	<b>753 018 683</b>	10	0.019	41	7	2,9
40	--	<b>753 018 684</b>	5	0.038	52	10	3,7
50	--	<b>753 018 685</b>	5	0.069	63	10	4,6
63	--	<b>753 018 686</b>	5	0.138	77	10	5,8
75	IR	<b>753 018 712</b>	-	0.241	100	20	6,8
90	IR	<b>753 018 713</b>	-	0.358	100	20	8,2
110	IR	<b>753 018 714</b>	-	0.755	141	25	10,0
125	IR	<b>753 018 690</b>	-	0.850	140	15	11,4
140	IR	<b>753 018 691</b>	-	1.180	155	15	12,7
160	IR	<b>753 018 692</b>	-	1.750	175	15	14,6
180	IR	<b>753 018 693</b>	-	2.670	195	15	16,4
200	IR	<b>753 018 694</b>	-	3.440	215	15	18,2
225	IR	<b>753 018 695</b>	-	4.790	245	20	20,5
250	--	<b>753 018 621</b>	-	6.800	256	48	22,7
280	--	<b>753 018 622</b>	-	9.900	286	48	25,4
315	--	<b>753 018 623</b>	-	13.500	321	48	28,6
355	--	<b>753 018 674</b>	-	20.700	380	15	32,2
400	--	<b>753 018 675</b>	-	30.500	435	25	36,3

53 10 86

## Elbows 90°, PE100 S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100

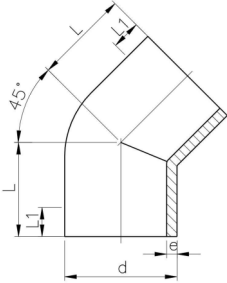


d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	<b>753 108 606</b>	10	0.009	38	25	1,9
25	IR	<b>753 108 607</b>	10	0.014	42	26	2,3
32	IR	<b>753 108 608</b>	10	0.025	46	27	2,9
40	IR	<b>753 108 609</b>	10	0.049	51	22	3,7
50	IR	<b>753 108 610</b>	10	0.087	58	23	4,6
63	IR	<b>753 108 611</b>	-	0.152	66	21	5,8

53 15 86

**Elbows 45°, PE100 S5/SDR11****Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

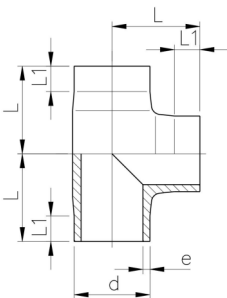


d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	<b>753 158 606</b>	10	0.008	32	24	1,9
25	IR	<b>753 158 607</b>	10	0.013	34	25	2,3
32	IR	<b>753 158 608</b>	10	0.021	36	25	2,9
40	IR	<b>753 158 609</b>	10	0.037	39	25	3,7
50	IR	<b>753 158 610</b>	10	0.059	42	26	4,6
63	IR	<b>753 158 611</b>	-	0.104	47	29	5,8
75	IR	<b>753 158 612</b>	-	0.147	49	29	6,8
90	IR	<b>753 158 613</b>	-	0.243	57	34	8,2
110	IR	<b>753 158 614</b>	-	0.445	70	43	10,0
125	IR	<b>753 158 615</b>	-	0.653	79	48	11,4
140	IR	<b>753 158 616</b>	-	0.905	88	55	12,7
160	IR	<b>753 158 617</b>	-	1.344	100	60	14,6
200	IR	<b>753 158 619</b>	-	2.625	124	75	18,2
225	IR	<b>753 158 620</b>	-	3.738	140	85	20,5

53 20 86

**Tees 90° equal, PE100 S5/SDR11****Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100



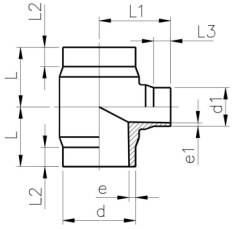
d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	<b>753 208 606</b>	10	0.013	38	24	1,9
25	IR	<b>753 208 607</b>	10	0.021	42	26	2,3
32	IR	<b>753 208 608</b>	10	0.042	46	26	2,9
40	IR	<b>753 208 609</b>	10	0.067	51	22	3,7
50	IR	<b>753 208 610</b>	-	0.114	58	22	4,6
63	IR	<b>753 208 611</b>	-	0.203	66	21	5,8
75	IR	<b>753 208 612</b>	-	0.310	75	20	6,8
90	IR	<b>753 208 613</b>	-	0.564	90	20	8,2
110	IR	<b>753 208 614</b>	-	1.020	110	20	10,0
125	IR	<b>753 208 615</b>	-	1.514	125	25	11,4
140	IR	<b>753 208 616</b>	-	2.111	140	28	12,7
160	IR	<b>753 208 617</b>	-	3.095	160	28	14,6
180	IR	<b>753 208 668</b>	-	4.560	190	70	16,4
200	IR	<b>753 208 619</b>	-	6.037	200	35	18,2
225	IR	<b>753 208 620</b>	-	8.090	220	35	20,5
250	--	<b>753 208 671</b>	-	12.208	272	90	22,7
280	--	<b>753 208 672</b>	-	17.831	313	108	25,4
315	--	<b>753 208 673</b>	-	25.742	348	114	28,6
355	--	<b>753 208 674</b>	-	31.900	345	100	32,2
400	--	<b>753 208 675</b>	-	39.200	360	102	36,3



## Tees 90°, reduced, PE100 S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100

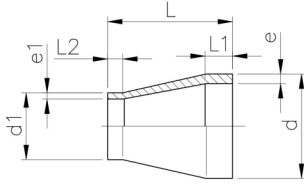


d	d1	FM	Code	SP	kg	L	L1	L2	L3	e	e1	
[mm]	[mm]					[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
63	32	IR	<b>753 208 351</b>	-	0.170	65	70	25	25	5,8	2,9	
63	50	IR	<b>753 208 352</b>	-	0.180	65	70	25	25	5,8	4,6	
75	32	IR	<b>753 208 353</b>	-	0.250	70	75	25	25	6,8	2,9	
75	50	IR	<b>753 208 354</b>	-	0.263	70	75	25	25	6,8	4,6	
75	63	IR	<b>753 208 355</b>	-	0.278	70	75	25	25	6,8	5,8	
90	50	IR	<b>753 208 357</b>	-	0.445	80	85	25	25	8,2	4,6	
90	63	IR	<b>753 208 358</b>	-	0.455	80	85	25	25	8,2	5,8	
90	75	IR	<b>753 208 359</b>	-	0.470	80	85	25	25	8,2	6,8	
110	32	IR	<b>753 208 360</b>	-	0.705	90	95	30	25	10,0	2,9	
110	50	IR	<b>753 208 361</b>	-	0.700	90	95	30	25	10,0	4,6	
110	63	IR	<b>753 208 362</b>	-	0.710	90	95	30	25	10,0	5,8	
110	75	IR	<b>753 208 363</b>	-	0.723	90	95	30	25	10,0	6,8	
110	90	IR	<b>753 208 364</b>	-	0.735	90	95	30	25	10,0	8,2	
160	63	IR	<b>753 208 371</b>	-	2.270	142	135	50	30	14,6	5,8	
160	75	IR	<b>753 208 372</b>	-	2.295	142	135	50	30	14,6	6,8	
160	90	IR	<b>753 208 373</b>	-	2.315	142	135	50	30	14,6	8,2	
160	110	IR	<b>753 208 374</b>	-	2.355	142	135	50	30	14,6	10,0	
225	90	IR	<b>753 208 388</b>	-	4.760	155	165	40	30	20,5	8,2	
225	110	IR	<b>753 208 389</b>	-	4.720	155	165	40	30	20,5	10,0	
225	160	IR	<b>753 208 391</b>	-	4.780	155	165	40	30	20,5	14,6	

## Reducers, PE100 S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100



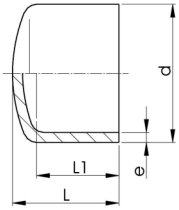
d [mm]	d1 [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]
25	20	IR	753 908 637	10	0.007	50	20	18	2,3	1,9
32	20	IR	753 908 642	10	0.010	50	20	18	2,9	1,9
32	25	IR	753 908 641	10	0.011	50	20	18	2,9	2,3
40	20	IR	753 908 648	10	0.016	58	20	20	3,7	1,9
40	25	IR	753 908 647	10	0.017	55	20	18	3,7	2,3
40	32	IR	753 908 646	10	0.019	55	20	18	3,7	2,9
50	25	IR	753 908 654	10	0.025	60	20	18	4,6	2,3
50	32	IR	753 908 653	10	0.028	60	20	18	4,6	2,9
50	40	IR	753 908 652	10	0.032	60	20	18	4,6	3,7
63	32	IR	753 908 660	10	0.046	65	20	18	5,8	2,9
63	40	IR	753 908 659	10	0.051	65	20	18	5,8	3,7
63	50	IR	753 908 658	10	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
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	145	50	37	18,2	14,6
200	180	IR	753 908 883	-	0.715	149	50	40	18,2	16,4
225	110	IR	753 908 695	-	1.447	160	55	35	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	167	55	45	20,5	16,4
225	200	--	753 908 697	-	1.737	160	55	48	20,5	18,2
250	160	--	753 908 890	-	2.314	194	60	45	22,7	14,6
250	225	--	753 908 887	-	2.595	183	60	55	22,7	20,5
280	225	--	753 908 892	-	1.908	110	33	23	25,4	20,5
280	250	--	753 908 891	-	1.390	100	29	21	25,4	22,7
315	225	--	753 908 897	-	2.797	120	31	24	28,6	20,5
315	250	--	753 908 896	-	2.370	110	32	24	28,6	22,7
315	280	--	753 908 895	-	1.590	100	29	19	28,6	25,4
355	250	--	753 908 863	-	4.400	130	54	40	32,3	22,7
355	280	--	753 908 862	-	4.100	120	53	40	32,2	25,4
355	315	--	753 908 861	-	3.700	110	53	40	32,2	28,6
400	315	--	753 908 866	-	5.300	120	50	40	36,3	28,6
400	355	--	753 908 865	-	10.000	110	51	40	36,3	32,2



## End Caps, PE100 S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

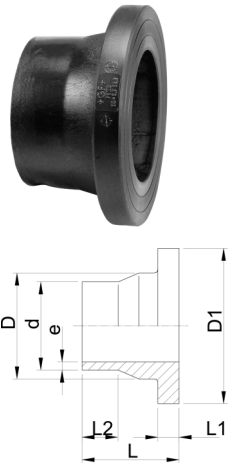


d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	753 968 931	-	0.004	42	30	1,9
25	IR	753 968 932	-	0.005	50	35	2,3
32	IR	753 968 933	-	0.010	55	40	2,9
40	IR	753 968 934	-	0.018	65	45	3,7
50	IR	753 968 935	-	0.029	70	50	4,6
63	IR	753 968 936	-	0.049	80	55	5,8
75	IR	753 968 937	-	0.065	90	60	6,8
90	IR	753 968 938	-	0.107	105	70	8,2
110	IR	753 968 939	-	0.174	120	80	10,0
125	IR	753 968 940	-	0.210	50	25	11,4
140	IR	753 968 941	-	0.323	60	30	12,7
160	IR	753 968 942	-	0.570	76	40	14,6
180	IR	753 968 943	-	0.730	125	88	16,4
200	IR	753 968 944	-	1.060	100	50	18,2
225	IR	753 968 945	-	1.365	103	60	20,5
250	--	753 968 946	-	3.600	205	130	22,7
280	--	753 968 947	-	5.000	230	139	25,4
315	--	753 968 948	-	6.600	255	150	28,6
355	--	753 968 949	-	9.800	280	165	32,2
400	--	753 968 950	-	13.700	310	180	36,3

## Flange Adaptors, PE100 S5/SDR11 Jointing Face serrated

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Suitable for flange connections to metric (from d110 also to ANSI B16.5)
- Do **not** use these flange adaptors when installing butterfly valves. Please use the special flange adaptors provided.



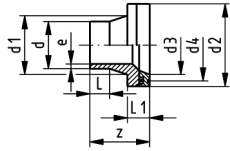
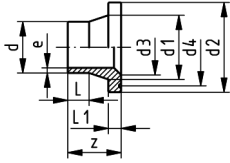
d [mm]	DN [mm]	FM	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	IR	753 798 606	10	0.016	27	45	50	7	28	1,9
25	20	IR	753 798 607	10	0.030	33	58	50	9	24	2,3
32	25	IR	753 798 608	10	0.047	40	68	54	10	27	2,9
40	32	IR	753 798 609	10	0.068	50	78	55	11	24	3,7
50	40	IR	753 798 610	-	0.100	61	88	62	12	30	4,6
63	50	IR	753 798 611	-	0.151	75	102	63	14	31	5,8
75	65	IR	753 798 612	-	0.257	89	122	80	16	27	6,8
90	80	IR	753 798 613	-	0.347	105	138	80	17	28	8,2
110	100	IR	753 798 614	-	0.464	125	158	80	18	28	10,0
125	100	IR	753 798 615	-	0.550	132	158	82	25	33	11,4
140	125	IR	753 798 616	-	0.788	155	188	89	25	37	12,7
*160	150	IR	753 798 617	-	0.995	175	212	92	25	40	14,6
180	150	IR	753 798 668	-	0.950	180	212	80	30	45	16,4
*200	200	IR	753 798 619	-	1.740	232	268	100	32	28	18,2
*225	200	IR	753 798 620	-	1.740	235	268	100	32	28	20,5
250	250	--	753 798 671	-	3.335	285	320	100	35	25	22,7
280	250	--	753 798 672	-	2.820	291	320	100	35	35	25,4
315	300	--	753 798 673	-	3.700	335	370	100	35	25	28,6
355	350	--	753 798 674	-	5.900	373	430	120	40	40	32,2
400	400	--	753 798 675	-	8.700	427	482	140	46	50	36,3



## Special Flange Adaptors, PE100 S5/SDR11 Jointing Face serrated

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Suitable for butterfly valves
- Chamfered and ready for use



\*Including spacer and O-Ring EPDM

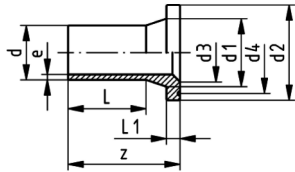
d [mm]	DN [mm]	FM	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
75	65	IR	<b>753 798 812</b>	-	0.200	89	122	66	80	16	27	6,8
90	80	IR	<b>753 798 813</b>	-	0.340	105	138	78	80	17	28	8,2
110	100	IR	<b>753 798 814</b>	-	0.430	125	158	100	80	18	28	10,0
140	125	IR	<b>753 798 816</b>	-	0.800	155	188	127	89	25	37	12,7
160	150	IR	<b>753 798 817</b>	-	0.950	175	212	153	92	25	40	14,6
180	150	IR	<b>753 798 818</b>	-	1.600	180	212	154	80	30	20	16,4
200	200	IR	<b>753 798 819</b>	-	1.650	232	268	208	100	32	28	18,2
225	200	IR	<b>753 798 820</b>	-	1.700	235	268	204	100	32	28	20,5
250	250	--	<b>753 798 821</b>	-	2.420	285	320	254	100	35	25	22,7
280	250	--	<b>753 798 822</b>	-	2.800	291	320	260	100	35	35	25,5
315	300	--	<b>753 798 823</b>	-	3.350	335	370	309	100	35	25	28,7
*355	350	--	<b>753 798 824</b>	-	7.800	380	430	346	156	75	40	32,2
*400	400	--	<b>753 798 825</b>	-	10.700	427	482	404	176	82	50	36,3



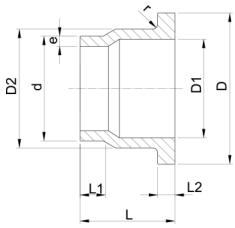
## Special Flange Adaptors long, PE100 S5/SDR11 for electrofusion

### Model:

- Suitable for electro-fusion and butt welding
- Suitable for butterfly valves
- PE 100 SDR 11 (ISO S 5)
- 10 bar Gas / 16 bar Water



d [mm]	D [mm]	Code	SP	kg	D1 [mm]	D2 [mm]	Z [mm]	L1 [mm]	L [mm]	e [mm]
75	89	<b>700 244 280</b>	-	0.303	122	62	125	16	75	6,8
90	105	<b>700 244 281</b>	-	0.204	138	82	140	17	85	8,2
110	125	<b>700 244 282</b>	-	0.714	158	100	160	18	90	10,0
160	175	<b>700 244 283</b>	-	1.686	212	153	200	25	110	14,6
180	180	<b>700 244 284</b>	-	2.571	212	154	200	30	115	16,4
200	232	<b>700 244 285</b>	-	2.950	268	208	200	32	120	18,2



## Outlet Flange Adaptors, PE80 S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- Suitable for wafer check valves Type 369

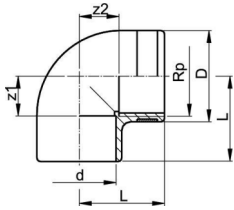
### Attention:

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

d [mm]	DN [mm]	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]	
40	32	<b>733 808 034</b>	-	0.064	80	37	50	64	30	11	3,7	3	
50	40	<b>733 808 035</b>	-	0.088	90	43	61	67	30	12	4,6	3	
63	50	<b>733 808 036</b>	-	0.126	105	54	76	74	30	14	5,8	4	
75	65	<b>733 808 037</b>	-	0.187	125	70	90	78	30	16	6,8	4	
90	80	<b>733 808 038</b>	-	0.346	140	82	108	87	35	17	8,2	4	
110	100	<b>733 808 039</b>	-	0.500	160	105	131	102	41	18	10,0	4	
140	125	<b>733 808 041</b>	-	0.710	190	130	165	124	47	25	12,7	4	
160	150	<b>733 808 042</b>	-	0.910	215	158	188	149	52	25	14,6	4	
225	200	<b>733 808 045</b>	-	1.830	270	206	248	180	55	32	20,5	4	
280	250	<b>733 808 047</b>	-	3.550	325	259	308	240	63	35	25,4	4	
315	300	<b>733 808 048</b>	-	4.960	375	308	346	272	66	35	28,6	4	

# Adaptor Fittings for Socket Fusion PE 80

33 10 02



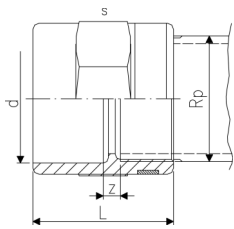
## Elbow 90°, PE80 metric - Rp

### Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PE

d [mm]	Rp [inch]	PN	Code	SP	kg	D [mm]	L [mm]	z1 [mm]	z2 [mm]
20	1/2	10	<b>733 100 206</b>	10	0.024	30	28	14	14
25	3/4	10	<b>733 100 207</b>	10	0.033	35	32	16	16
32	1	10	<b>733 100 208</b>	10	0.061	44	38	20	20
40	1 1/4	10	<b>733 100 209</b>	10	0.094	54	44	24	24

33 91 02



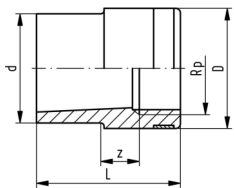
## Adaptor Sockets, PE80 metric - Rp

### Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PE

d [mm]	Rp [inch]	PN	Code	SP	kg	L [mm]	s [mm]	z [mm]
20	1/2	10	<b>733 910 206</b>	1	0.020	35	32	7
25	3/4	10	<b>733 910 207</b>	1	0.026	39	36	7
32	1	10	<b>733 910 208</b>	10	0.043	45	46	7
40	1 1/4	10	<b>733 910 209</b>	10	0.070	53	55	7
50	1 1/2	10	<b>733 910 210</b>	1	0.099	54	65	9
63	2	10	<b>733 910 211</b>	5	0.159	62	80	9

33 91 04

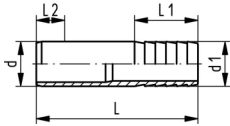


## Reducing Bushes, PE80 metric - Rp

### Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PE

d [mm]	Rp [inch]	PN	Code	SP	kg	L [mm]	z [mm]
20	3/8	10	<b>733 910 434</b>	1	0.012	33	7
25	1/2	10	<b>733 910 437</b>	1	0.017	37	6
32	3/4	10	<b>733 910 441</b>	1	0.027	43	8
40	1	10	<b>733 910 446</b>	1	0.046	49	9
50	1 1/4	10	<b>733 910 452</b>	1	0.071	55	10



## Hose Connectors, PE100 metric

### Model:

- With socket fusion spigot metric and parallel hose connection

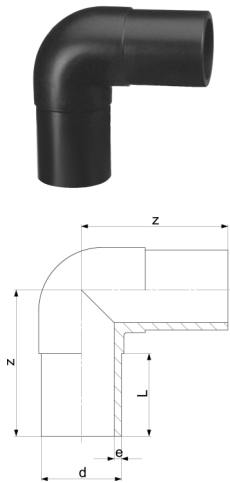
d [mm]	d1 [mm]	PN	Code	SP	kg	L [mm]	L1 [mm]	L2 [mm]	
20	20	10	<b>753 960 406</b>	10	0.007	55	27	14	
25	25	10	<b>753 960 407</b>	10	0.015	68	36	16	
32	32	10	<b>753 960 408</b>	10	0.021	77	36	18	
40	40	10	<b>753 960 409</b>	10	0.030	80	42	20	
50	50	10	<b>753 960 410</b>	10	0.064	90	48	23	
63	60	10	<b>753 960 411</b>	5	0.092	100	50	27	

# Spigot Fittings in PE 100

53 10 10

## Elbow 90° LS

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water

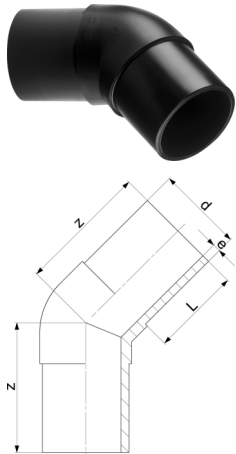


d [mm]	Code	SP	kg	z [mm]	L [mm]	e [mm]
20	753 101 006	1	0.027	75	52	3.0
25	753 101 007	1	0.037	80	52	3.0
32	753 101 008	1	0.053	85	54	3.0
40	753 101 009	1	0.093	95	57	3.7
50	753 101 010	1	0.159	105	63	4.6
63	753 101 011	1	0.275	115	65	5.8
75	753 101 012	1	0.413	130	72	6.8
90	753 101 013	1	0.704	150	81	8.2
110	753 101 014	1	1.145	165	86	10.0
125	753 101 015	1	1.609	180	93	11.4
140	753 101 016	-	1.920	202	92	12.7
160	753 101 017	1	3.100	210	103	14.6
180	753 101 018	1	4.319	232	107	16.4
200	753 101 019	1	5.733	253	117	18.2
225	753 101 020	1	7.780	270	122	20.5
250	753 101 001	-	11.015	292	130	22.7
280	753 100 922	-	15.740	320	139	25.4
315	753 100 923	-	21.960	365	150	28.6

53 15 10

## Elbow 45° LS

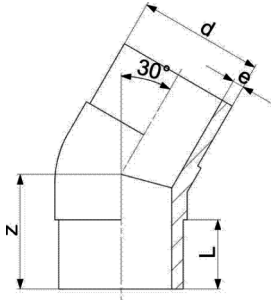
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water



d [mm]	Code	SP	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	1	0.051	80	54	3.0
40	753 151 009	1	0.082	85	57	3.7
50	753 151 010	1	0.137	90	63	4.6
63	753 151 011	1	0.300	95	65	5.8
75	753 151 012	1	0.346	105	72	6.8
90	753 151 013	1	0.578	120	81	8.2
110	753 151 014	1	0.931	130	86	10.0
125	753 151 015	1	1.286	140	92	11.4
140	753 151 016	-	1.600	164	92	12.7
160	753 151 017	1	2.461	162	102	14.6
180	753 151 018	1	3.283	170	107	16.4
200	753 151 019	1	4.371	186	116	18.2
225	753 151 020	1	6.013	200	123	20.5
250	753 151 021	-	8.300	220	130	22.7
280	753 150 922	-	10.600	230	139	25.4
315	753 150 923	-	13.100	250	150	28.6

**Elbow 30° LS**

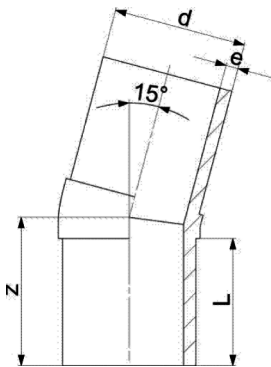
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Welded design



d [mm]	Code	SP	kg	z [mm]	L [mm]	e [mm]
32	<b>753 120 908</b>	-	0.530		54	3,0
40	<b>753 120 909</b>	-	0.530		57	3,7
50	<b>753 120 910</b>	-	0.530		63	4,6
63	<b>753 120 911</b>	1	0.207	85	65	5,8
75	<b>753 120 912</b>	1	0.530	95	72	6,8
90	<b>753 120 913</b>	-	0.540	110	81	8,2
110	<b>753 120 914</b>	-	0.840	115	86	10,0
125	<b>753 120 915</b>	1	1.240	125	92	11,4
140	<b>753 120 916</b>	-	1.760		92	12,7
160	<b>753 120 917</b>	1	2.050	140	102	14,6
180	<b>753 120 918</b>	1	2.907	150	107	16,4
200	<b>753 120 919</b>	1	8.600	160	116	18,2
225	<b>753 120 920</b>	-	5.360	170	123	20,5
250	<b>753 120 921</b>	-	7.300		130	22,7
280	<b>753 120 922</b>	-	0.530		139	25,4
315	<b>753 120 923</b>	-	0.530		150	28,6

**Elbow 15° LS**

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Welded design



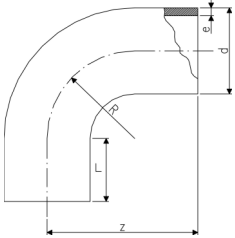
d [mm]	Code	SP	kg	z [mm]	L [mm]	e [mm]
32	<b>753 141 008</b>	-	0.620		54	3.0
40	<b>753 141 009</b>	-	0.620		57	3.7
50	<b>753 141 010</b>	-	0.620		63	4.6
63	<b>753 141 011</b>	1	0.200	80	65	5.8
75	<b>753 141 012</b>	-	0.250	90	72	6.8
90	<b>753 141 013</b>	1	0.487	100	81	8.2
110	<b>753 141 014</b>	-	0.785	105	86	10.0
125	<b>753 141 015</b>	1	1.070	115	92	11.4
140	<b>753 141 016</b>	-	0.620		92	12.7
160	<b>753 141 017</b>	-	2.050	125	102	14.6
180	<b>753 141 018</b>	-	2.669	135	107	16.4
200	<b>753 141 019</b>	1	3.440	145	116	18.2
225	<b>753 141 020</b>	-	4.900	155	123	20.5
250	<b>753 141 021</b>	-	0.620		130	22.7
280	<b>753 141 022</b>	-	0.620		139	25.4
315	<b>753 141 023</b>	-	0.620		150	28.6

53 00 09

**Bend 90° LS**

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water

\* made out of seamless pipe



d [mm]	Code	SP	kg	z [mm]	L [mm]	R [mm]	e [mm]
20	<b>753 001 006</b>	-	0.020	63	41	20	1,9
25	<b>753 001 007</b>	-	0.030	68	41	25	2,3
32	<b>753 001 008</b>	-	0.050	78	46	32	2,9
40	<b>753 001 009</b>	-	0.090	91	49	40	3,7
50	<b>753 001 010</b>	-	0.160	107	55	50	4,6
63	<b>753 001 011</b>	-	0.290	130	63	63	5,8
75	<b>753 001 012</b>	1	0.300	152	70	75	6,8
90	<b>753 001 013</b>	-	0.530	168	79	90	8,2
110	<b>753 001 014</b>	1	0.890	193	82	110	10,0
125	<b>753 001 015</b>	-	1.290	216	87	125	11,4
140	<b>753 001 016</b>	-	2.230	232	92	140	12,7
160	<b>753 001 017</b>	1	2.460	258	98	160	14,6
180	<b>753 001 018</b>	-	5.000	290	105	180	16,4
200	<b>753 001 019</b>	-	4.480	317	112	200	18,2
225	<b>753 001 020</b>	-	9.770	350	120	225	20,5
250	<b>753 001 021</b>	-	9.230	375	130	250	22,7
280	<b>753 001 022</b>	-	17.410	430	150	280	25,4
315	<b>753 001 023</b>	-	23.950	470	150	315	28,6
*355	<b>753 001 024</b>	-	53.300	900	250	533	32,2
*400	<b>753 001 025</b>	-	71.900	980	250	600	36,3
*450	<b>753 001 026</b>	-	97.300	1070	250	675	40,9
*500	<b>753 001 027</b>	-	134.000	1200	280	750	45,4
*560	<b>753 001 028</b>	-	179.300	1290	280	840	50,8
*630	<b>753 001 029</b>	-	243.200	1400	280	945	57,2



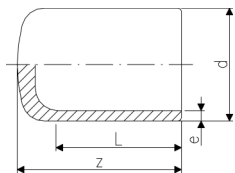
53 96 10

### Cap LS

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water

**Note:**

- \* Fabricated part using pipe

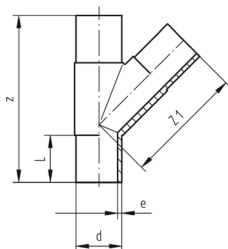


d [mm]	Code	SP	kg	z [mm]	L [mm]	e [mm]	
20	753 961 006	1	0.009	52	52	3,0	
25	753 961 007	1	0.013	52	52	3,0	
32	753 961 008	1	0.017	54	54	3,0	
40	753 961 009	1	0.031	57	57	3,7	
50	753 961 010	1	0.050	63	63	4,6	
63	753 961 011	1	0.085	65	65	5,8	
75	753 961 012	1	0.145	80	72	6,8	
90	753 961 013	1	0.240	90	81	8,2	
110	753 961 014	1	0.387	98	86	10,0	
125	753 961 015	1	0.546	105	92	11,4	
140	753 961 016	1	0.835	136	92	12,7	
160	753 961 017	1	1.026	120	102	14,6	
180	753 961 018	1	1.369	128	107	16,4	
200	753 961 019	1	1.839	138	115	18,2	
225	753 961 020	1	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	32,2	
400	753 960 925	-	13.370	310	180	36,3	
*450	753 960 926	-	13.370	275	195	40,9	
*500	753 960 927	-	13.370	297	212	45,4	
*560	753 960 928	-	13.370	325	230	50,8	
*630	753 960 929	-	13.370	355	250	57,2	

53 25 10

### Tee 45°, equal LS

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water

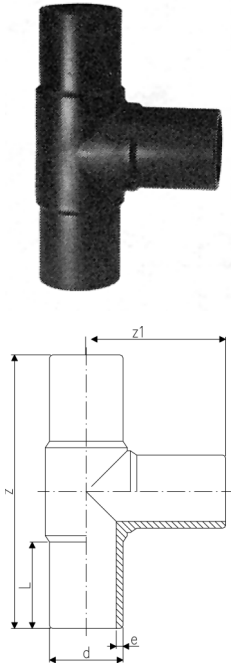


d [mm]	Code	SP	kg	z [mm]	z1 [mm]	L [mm]	e [mm]	
63	753 251 011	-	0.500	255	158	63	5,8	
75	753 251 012	-	0.800	301	190	70	6,8	
90	753 251 013	-	1.300	368	234	79	8,2	
110	753 251 014	-	1.800	395	260	82	10,0	

**Tee 90°, equal LS**

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water

- \* With welded pipes
- \* Segment welded and reinforced
- \* No pressure reduction factor



d [mm]	Code	SP	kg	z [mm]	z1 [mm]	L [mm]	e [mm]
20	<b>753 201 006</b>	1	0.038	150	75	52	3,0
25	<b>753 201 007</b>	1	0.054	160	80	52	3,0
32	<b>753 201 008</b>	1	0.074	170	85	54	3,0
40	<b>753 201 009</b>	1	0.127	190	95	57	3,7
50	<b>753 201 010</b>	1	0.217	210	105	63	4,6
63	<b>753 201 011</b>	1	0.375	230	115	65	5,8
75	<b>753 201 012</b>	1	0.616	264	132	72	6,8
90	<b>753 201 013</b>	1	1.031	300	150	81	8,2
110	<b>753 201 014</b>	1	1.660	330	165	86	10,0
125	<b>753 201 015</b>	1	2.215	366	183	92	11,4
140	<b>753 201 016</b>	-	3.200	396	198	92	12,7
160	<b>753 201 017</b>	1	4.320	420	210	102	14,6
180	<b>753 201 018</b>	1	5.980	460	230	107	16,4
200	<b>753 201 019</b>	1	7.760	500	250	117	18,2
225	<b>753 201 020</b>	1	10.485	540	270	122	20,5
250	<b>753 201 001</b>	-	14.840	576	288	130	22,7
280	<b>753 200 902</b>	-	18.670	616	308	139	25,4
315	<b>753 200 903</b>	-	26.150	690	345	150	28,6
355	<b>753 200 904</b>	-	39.800	818	409	165	32,2
400	<b>753 200 905</b>	-	42.495	910	455	180	36,3
450	<b>753 200 906</b>	-	77.300	954	477	195	40,9
500	<b>753 200 907</b>	-	101.000	1040	520	215	45,4
*560	<b>753 200 908</b>	-	153.300	1510			50,8
*630	<b>753 200 909</b>	-	205.500				57,2

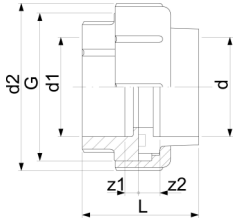
# Unions for Socket Fusion

33 58 01

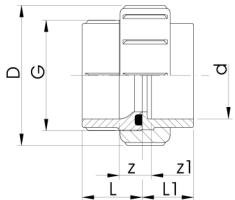
## Unions, PE80 metric

### Model:

- Union ends: Fusion sockets, PE80 metric
- Union bush: brass
- Union Nut: brass
- Gasket: O-ring NBR (Nitril-rubber)



d [mm]	d1 [mm]	PN	Code	SP	kg	G [inch]	L [mm]	z1 [mm]	D2 [mm]	d2 [mm]	z2 [mm]
20	20	10	<b>733 580 106</b>	10	0.163	1 1/4	46	6	46	46	3
25	25	10	<b>733 580 107</b>	5	0.214	1 1/2	49	6	52	52	3
32	32	10	<b>733 580 108</b>	2	0.294	2	51	6	64	64	3
40	40	10	<b>733 580 109</b>	1	0.473	2 1/2	56	8	79	79	3
50	50	10	<b>733 580 110</b>	1	0.491	2 2/3	61	8	85	85	3
63	63	10	<b>733 580 111</b>	1	0.730	3 1/2	69	8	104	104	3



## Unions, PE 100 metric

### Model:

- With fusion sockets metric
- Jointing face: with O-ring groove
- Gasket : O-ring No. 48 41 00 EPDM
- O-ring No. 49 41 00 FPM

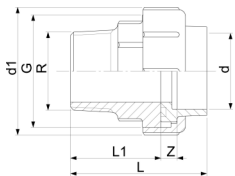
d [mm]	PN	EPDM Code	FPM Code	D [mm]	G [inch]	L [mm]	L1 [mm]	z [mm]	z1 [mm]
20	10	<b>753 510 106</b>	<b>753 520 106</b>	48	1	19	26	5	12
25	10	<b>753 510 107</b>	<b>753 520 107</b>	58	11/4	21	28	5	12
32	10	<b>753 510 108</b>	<b>753 520 108</b>	65	11/2	23	30	5	12
40	10	<b>753 510 109</b>	<b>753 520 109</b>	79	2	25	34	5	14
50	10	<b>753 510 110</b>	<b>753 520 110</b>	91	2 1/4	28	39	5	16
63	10	<b>753 510 111</b>	<b>753 520 111</b>	111	23/4	32	47	5	20

33 58 07

## Adaptor unions, PE80 - brass metric - R

### Model:

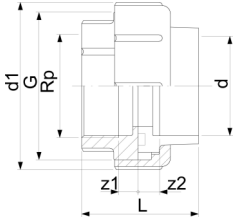
- Union ends: Fusion sockets, PE80 metric
- Union bush: nickel-plated, taper male thread R
- Union Nut: brass
- Gasket: O-ring NBR (Nitril-rubber)



d [mm]	R [inch]	PN	Code	SP	kg	d1 [mm]	G [inch]	L [mm]	L1 [mm]	z [mm]
20	1/2	10	<b>733 580 706</b>	10	0.260	46	1 1/4	62	40	6
25	3/4	10	<b>733 580 707</b>	5	0.324	52	1 1/2	65	41	6
32	1	10	<b>733 580 708</b>	2	0.470	64	2	71	45	6
40	1 1/4	10	<b>733 580 709</b>	2	0.754	79	2 1/2	78	48	8
50	1 1/2	10	<b>733 580 710</b>	2	0.794	85	2 3/4	81	43	8
63	2	10	<b>733 580 711</b>	1	1.186	104	3 1/2	91	54	8

33 58 02

## Adaptor unions, PE80 - brass metrisch - Rp



### Model:

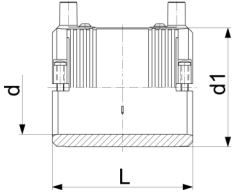
- Union ends: Fusion sockets, PE80 metric
- Union bush: nickel-plated, parallel female thread Rp
- Union Nut: brass
- Gasket: O-ring NBR (Nitril-rubber)

d [mm]	Rp [inch]	PN	Code	SP	kg	G [inch]	L [mm]	d1 [mm]	z1 [mm]	z2 [mm]
20	1/2	10	<b>733 580 206</b>	10	0.209	1 1/4	46	46	6	10
25	3/4	10	<b>733 580 207</b>	5	0.269	1 1/2	48	52	6	9
32	1	10	<b>733 580 208</b>	2	0.371	2	51	64	6	8
40	1 1/4	10	<b>733 580 209</b>	2	0.596	2 1/2	56	79	8	7
50	1 1/2	10	<b>733 580 210</b>	2	0.666	2 3/4	59	85	8	7
63	2	10	<b>733 580 211</b>	1	0.960	3 1/2	65	104	8	5

# ELGEF® Plus Electrofusion Fittings

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## Coupler with integral pipe fixation

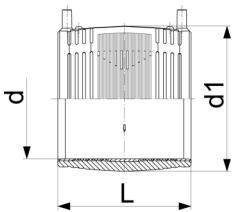


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Removable centre stop

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	z [mm]	
20	<b>753 911 606</b>	1	0.054	31	68	2	
25	<b>753 911 607</b>	1	0.060	36	68	2	
32	<b>753 911 608</b>	1	0.072	44	72	2	
40	<b>753 911 609</b>	1	0.100	54	80	2	
50	<b>753 911 610</b>	1	0.136	66	88	2	
63	<b>753 911 611</b>	1	0.194	81	96	2	

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## Coupler

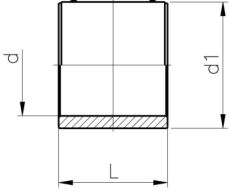


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Removable centre stop up to d160

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	z [mm]	
75	<b>753 911 612</b>	1	0.287	96	110	2	
90	<b>753 911 613</b>	1	0.421	113	125	2	
110	<b>753 911 614</b>	1	0.697	138	145	2	
125	<b>753 911 615</b>	1	0.738	154	158	3	
140	<b>753 911 616</b>	1	0.968	172	168	3	
160	<b>753 911 617</b>	1	1.390	196	180	3	
180	<b>753 911 618</b>	1	1.750	219	194		
200	<b>753 911 619</b>	1	2.350	244	208		
225	<b>753 911 620</b>	1	3.160	273	224		
250	<b>753 911 621</b>	1	4.345	304	244		
280	<b>753 911 622</b>	1	5.675	340	252		
315	<b>753 911 623</b>	1	8.000	382	268		
355	<b>753 911 624</b>	1	12.110	432	246		
400	<b>753 911 625</b>	1	15.993	487	246		

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## Coupler

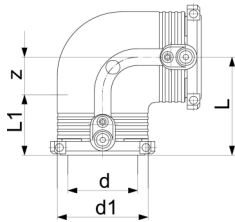


- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- d160 with removable centre stop

d [mm]	Code	kg	d1 [mm]	L [mm]
160	<b>753 911 817</b>	1.050	186	180
180	<b>753 911 818</b>	1.450	213	194
200	<b>753 911 819</b>	1.800	233	208
225	<b>753 911 820</b>	2.385	261	224
250	<b>753 911 821</b>	4.345	304	244
280	<b>753 911 822</b>	5.675	340	252
315	<b>753 911 823</b>	8.000	382	268
355	<b>753 911 824</b>	8.200	414	246
400	<b>753 911 825</b>	15.993	487	246
450	<b>753 911 826</b>	15.500	522	290
500	<b>753 911 827</b>	19.000	579	290

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## Elbow 90° with integral pipe fixation

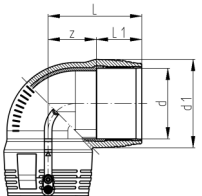


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
20	<b>753 101 606</b>	-	0.093	35	54	34	20
25	<b>753 101 607</b>	-	0.078	35	54	34	20
32	<b>753 101 608</b>	1	0.098	44	53	36	17
40	<b>753 101 609</b>	1	0.142	54	62	39	23
50	<b>753 101 610</b>	-	0.215	66	71	43	28
63	<b>753 101 611</b>	1	0.280	81	81	48	32

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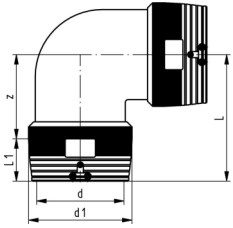
## Elbow 90°



- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
75	<b>753 101 812</b>	1	0.530	97	101	61	40
90	<b>753 101 813</b>	1	0.676	115	122	62	60
110	<b>753 101 814</b>	1	1.190	140	147	72	76
125	<b>753 101 815</b>	1	1.560	151	142	74	68
160	<b>753 101 817</b>	1	2.200	196	178	92	86
180	<b>753 101 818</b>	1	4.286	219	195	95	100

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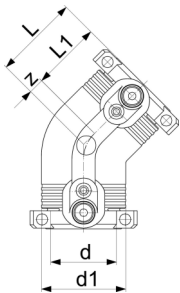


### Elbow 90°

- 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	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
200	<b>753 101 819</b>	1	8.923	245	265	104	161
225	<b>753 101 820</b>	1	12.440	274	305	112	193
250	<b>753 101 821</b>	1	15.800	305	335	123	212

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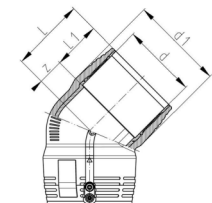


### Elbow 45° with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
32	<b>753 151 608</b>	1	0.087	44	44	36	8
40	<b>753 151 609</b>	1	0.121	54	50	39	11
50	<b>753 151 610</b>	1	0.140	66	56	43	13
63	<b>753 151 611</b>	1	0.274	81	63	48	15

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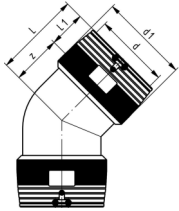
### Elbow 45°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]
75	<b>753 151 812</b>	1	0.437	97	79	62	17
90	<b>753 151 813</b>	1	0.537	115	91	62	29
110	<b>753 151 814</b>	1	0.974	140	112	72	40
125	<b>753 151 815</b>	1	1.166	151	107	74	33
160	<b>753 151 817</b>	1	1.800	196	134	92	42
180	<b>753 151 818</b>	1	3.200	217	142	95	47

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### Elbow 45°

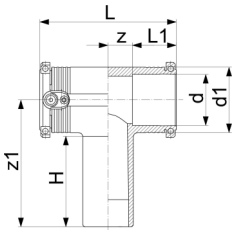


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
200	<b>753 151 819</b>	1	7.405	245	215	104	111	
225	<b>753 151 820</b>	1	10.590	274	235	112	123	
250	<b>753 151 821</b>	1	13.580	305	263	123	140	

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### Tee 90°, equal with integral pipe fixation

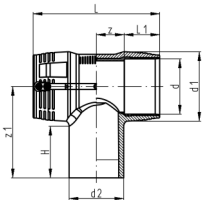


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
20	<b>753 211 606</b>	-	0.100	35	90	34	11	92	67
25	<b>753 211 607</b>	-	0.088	35	90	34	11	92	70
32	<b>753 211 608</b>	1	0.115	44	102	36	15	100	74
40	<b>753 211 609</b>	1	0.176	54	120	39	21	114	82
50	<b>753 211 610</b>	-	0.268	66	135	43	24	126	90
63	<b>753 211 611</b>	-	0.429	81	152	48	28	150	102

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### Tee 90° equal

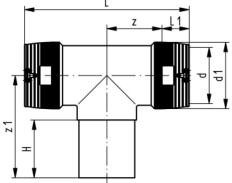


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
75	<b>753 201 812</b>	1	0.597	97	187	61	33	126	78
90	<b>753 201 813</b>	1	0.910	115	205	62	41	161	94
110	<b>753 201 814</b>	1	1.420	140	255	72	56	184	104
125	<b>753 201 815</b>	1	1.980	151	256	75	53	174	92
160	<b>753 201 817</b>	1	4.893	196	325	92	71	206	103
180	<b>753 201 818</b>	1	6.770	225	344	90	82	250	110

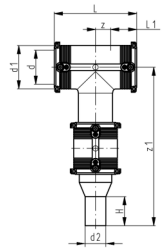


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**Tee 90°, equal**

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones

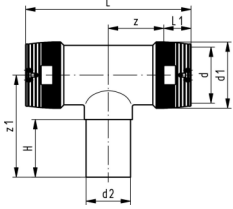
d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]
200	<b>753 201 819</b>	1	10.800	245	560	104	176	250	117
225	<b>753 201 820</b>	1	15.145	274	610	112	193	270	122
250	<b>753 201 821</b>	1	19.000	305	667	123	211	288	127

**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	<b>193 281 004</b>	0.314	54	120	39	21	244	212
40	25	<b>193 281 005</b>	0.319	54	120	39	21	244	212
75	40	<b>193 280 998</b>	1.060	97	187	61	33	296	248
90	50	<b>193 280 999</b>	1.620	112	202	61	41	336	274
110	63	<b>193 280 961</b>	2.670	136	242	65	56	366	293
125	63	<b>193 280 963</b>	3.690	151	256	75	53	361	279
125	110	<b>193 280 965</b>	3.920	151	256	75	53	389	307
160	125	<b>193 280 969</b>	8.250	196	325	92	71	451	348
180	90	<b>193 281 032</b>	10.056	225	344	90	82	487	347
180	110	<b>193 281 033</b>	10.246	225	344	90	82	495	355

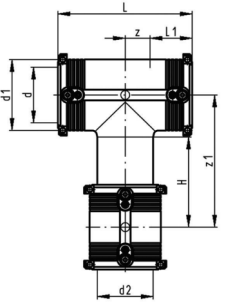
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**Tee 90°, reduced**

- 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	d2	Code	SP	kg	d1	L	L1	z	z1	H
[mm]	[mm]				[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
160	63	<b>753 211 037</b>	1	5.480	196	405	90	113	176	65
160	90	<b>753 211 039</b>	1	5.580	196	405	90	113	188	79
160	110	<b>753 211 040</b>	1	5.700	196	405	90	113	195	85
200	90	<b>753 211 059</b>	-	11.260	245	557	104	175	215	81
200	110	<b>753 211 060</b>	-	11.260	245	557	104	175	218	84
200	160	<b>753 211 063</b>	-	11.260	245	557	104	175	236	101
225	90	<b>753 211 069</b>	1	13.520	274	615	112	196	226	80
225	110	<b>753 211 070</b>	1	13.570	274	615	112	196	235	85
225	160	<b>753 211 073</b>	1	14.020	274	615	112	196	255	105
250	110	<b>753 211 080</b>	-	11.260	305	668	123	211	245	85
250	160	<b>753 211 083</b>	-	11.260	305	668	123	211	264	101

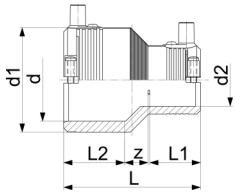
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**Tee 90° with weldable outlet (Kit)  
equal or reduced**

- 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	d2	Code	SP	kg	d1	L	L1	z	z1	H
[mm]	[mm]				[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
20	20	<b>753 201 606</b>	1	0.170	35	90	34	11	92	67
25	25	<b>753 201 607</b>	1	0.170	35	90	34	11	92	70
32	32	<b>753 201 608</b>	1	0.213	44	102	36	15	100	74
40	32	<b>193 281 006</b>	-	0.248	54	120	39	21	127	95
40	40	<b>753 201 609</b>	1	0.295	54	120	39	21	114	82
50	32	<b>193 281 007</b>	-	0.364	66	135	43	24	144	108
50	40	<b>193 281 008</b>	-	0.404	66	135	43	24	140	104
50	50	<b>753 201 610</b>	1	0.419	66	135	43	24	126	90
63	32	<b>193 280 997</b>	-	0.550	81	152	48	28	173	125
63	40	<b>193 281 009</b>	-	0.605	81	152	48	28	169	121
63	50	<b>193 281 010</b>	-	0.618	81	152	48	28	165	117
63	63	<b>753 201 611</b>	1	0.641	81	152	48	28	150	102
90	63	<b>193 281 011</b>	1	1.300	112	202	61	41	182	120
90	90	<b>753 201 613</b>	1	1.450	112	202	61	41	146	84
110	90	<b>193 281 012</b>	1	2.294	136	242	65	56	200	127
110	110	<b>753 201 614</b>	1	2.400	136	242	65	56	161	88
125	90	<b>193 281 013</b>	-	2.850	151	256	75	53	214	132
125	125	<b>753 201 615</b>	1	2.930	151	256	75	53	174	92
160	110	<b>193 281 030</b>	-	6.093	196	325	92	71	271	168
160	160	<b>753 201 617</b>	1	6.664	196	325	92	71	206	103
180	125	<b>193 281 031</b>	-	8.770	225	344	90	82	330	190
180	180	<b>753 201 618</b>	1	9.600	225	344	90	82	250	110

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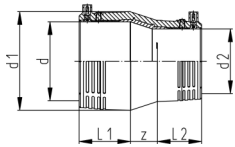


## Reducer with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	d2 [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
25	20	<b>753 901 639</b>	-	0.059	35	74	34	34	6
32	20	<b>753 901 640</b>	1	0.071	44	79	33	36	10
32	25	<b>753 901 641</b>	1	0.060	44	79	33	36	10
40	32	<b>753 901 646</b>	1	0.072	54	88	33	39	13
50	32	<b>753 901 651</b>	1	0.096	66	96	35	43	18
50	40	<b>753 901 652</b>	1	0.136	66	96	39	43	14
63	32	<b>753 901 656</b>	1	0.171	81	106	35	48	23
63	40	<b>753 901 657</b>	1	0.176	81	106	39	48	19
63	50	<b>753 901 658</b>	1	0.189	81	106	43	48	15

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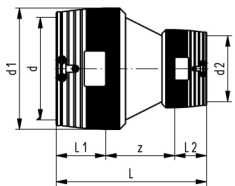


## Reducer

- 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	SP	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
90	63	<b>753 901 831</b>	1	0.360	113	146	63	47	36
110	90	<b>753 901 833</b>	1	0.657	138	173	73	63	38
125	90	<b>753 901 836</b>	1	0.870	152	180	79	61	40
160	110	<b>753 901 834</b>	1	1.200	196	226	91	70	65
180	125	<b>753 901 835</b>	1	2.000	220	247	97	70	80

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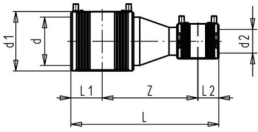


## Reducer

- 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	SP	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]
200	160	<b>753 901 837</b>	1	4.610	245	311	104	90	117
225	160	<b>753 901 838</b>	1	5.850	274	331	112	90	129
250	160	<b>753 901 840</b>	1	7.710	305	362	123	90	149
250	200	<b>753 901 841</b>	1	8.010	305	380	123	104	153

93 28 09

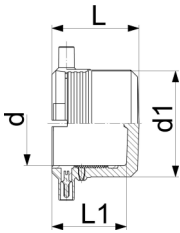


## Reducer (Kit)

- 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]
40	20	<b>193 280 956</b>	0.192	54	204	40	34	130
40	25	<b>193 280 957</b>	0.203	54	204	40	34	130
75	40	<b>193 280 992</b>	0.567	96	265	55	40	170
75	50	<b>193 280 993</b>	0.610	96	269	55	44	170
75	63	<b>193 280 994</b>	0.700	96	273	55	48	170
90	50	<b>193 280 958</b>	0.848	113	297	63	44	190
90	75	<b>193 280 995</b>	1.070	113	308	63	55	190
110	63	<b>193 280 950</b>	1.490	138	326	73	48	205
110	75	<b>193 280 996</b>	1.480	138	333	73	55	205
125	63	<b>193 280 953</b>	1.580	154	314	79	48	187
125	110	<b>193 280 951</b>	2.360	154	367	79	73	215
160	90	<b>193 280 954</b>	3.060	196	370	90	63	217
160	125	<b>193 280 952</b>	3.680	196	414	90	79	245
180	110	<b>193 280 959</b>	4.167	214	413	95	73	245

53 96 16

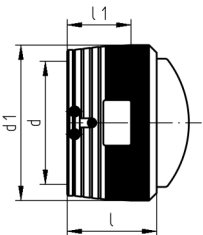


## End Cap with integral pipe fixation

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]
20	<b>753 961 606</b>	1	0.038	35	52	44
25	<b>753 961 607</b>	1	0.030	35	52	44
32	<b>753 961 608</b>	1	0.080	44	52	44
40	<b>753 961 609</b>	1	0.074	54	56	47
50	<b>753 961 610</b>	1	0.086	66	60	49
63	<b>753 961 611</b>	1	0.154	81	66	54

53 96 16

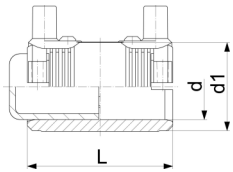


## End Cap

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators

d [mm]	Code	SP	kg	d1 [mm]	L [mm]	L1 [mm]
160	<b>753 961 617</b>	1	2.000	196	129	90
200	<b>753 961 619</b>	1	3.370	245	147	104
225	<b>753 961 620</b>	1	4.470	274	157	112
250	<b>753 961 621</b>	1	6.890	305	173	123

53 96 17

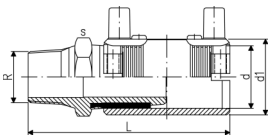


### End cap (Kit)

- 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	SP	kg	d1 [mm]	L [mm]
75	<b>753 961 712</b>	1	0.446	96	110
90	<b>753 961 713</b>	1	0.680	113	125
110	<b>753 961 714</b>	1	1.126	133	145
125	<b>753 961 715</b>	1	1.594	155	158
140	<b>753 961 716</b>	1	2.250	175	170
*160	<b>753 961 717</b>	1	2.712	197	180
180	<b>753 961 718</b>	1	4.136	220	194
*200	<b>753 961 719</b>	1	4.906	245	208
*225	<b>753 961 720</b>	1	6.500	296	224

20 92 07



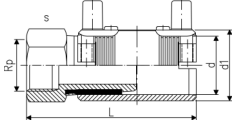
### Transition Coupler PE/brass (Ms 58) Male Thread

- 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 kit

d [mm]	R [inch]	Code	SP	kg	d1 [mm]	L [mm]	s [mm]
20	½	<b>720 920 756</b>	1	0.217	31	110	30
20	1	<b>720 920 754</b>	1	0.344	44	124	40
25	¾	<b>720 920 757</b>	1	0.280	36	111	35
25	1	<b>720 920 763</b>	1	0.364	44	124	40
32	½	<b>720 920 764</b>	1	0.235	44	121	30
32	¾	<b>720 920 765</b>	1	0.287	44	122	35
32	1	<b>720 920 758</b>	1	0.355	44	117	40
32	1 ¼	<b>720 920 766</b>	1	0.543	54	135	50
32	1 ½	<b>720 920 767</b>	1	0.685	60	143	60
32	2	<b>720 920 768</b>	1	1.000	81	157	70
40	1	<b>720 920 771</b>	1	0.387	54	133	40
40	1 ¼	<b>720 920 759</b>	1	0.541	54	127	50
40	1 ½	<b>720 920 772</b>	1	0.694	66	143	60
40	2	<b>720 920 773</b>	1	0.992	81	157	70
50	1	<b>720 920 776</b>	1	0.416	66	141	40
50	1 ¼	<b>720 920 777</b>	1	0.578	66	143	50
50	1 ½	<b>720 920 760</b>	1	0.670	66	135	60
50	2	<b>720 920 778</b>	1	0.994	81	157	70
63	1	<b>720 920 781</b>	1	0.460	81	151	40
63	1 ¼	<b>720 920 782</b>	1	0.626	81	153	40
63	1 ½	<b>720 920 783</b>	1	0.741	81	153	60
63	2	<b>720 920 761</b>	1	1.005	81	147	70

20 92 02

## Transition Coupler PE/brass (Ms 58) Female Thread

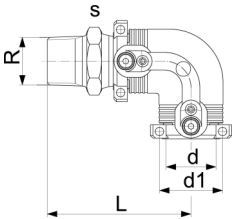


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit

d [mm]	Rp [inch]	Code	SP	kg	d1 [mm]	L [mm]	s [mm]
32	1	<b>720 920 258</b>	1	0.338	44	108	40
40	1 ¼	<b>720 920 259</b>	1	0.511	54	118	50
50	1 ½	<b>720 920 260</b>	1	0.744	66	126	60
63	1	<b>720 920 281</b>	1	1.280	81	138	70
63	1 ¼	<b>720 920 282</b>	1	1.230	81	138	70
63	1 ½	<b>720 920 283</b>	1	1.115	81	138	70
63	2	<b>720 920 261</b>	1	1.016	81	138	70

20 10 07

## Transition Elbow 90° PE/brass (Ms 58) Male Thread

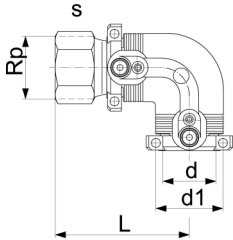


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit

d [mm]	R [inch]	Code	SP	kg	d1 [mm]	L [mm]	s [mm]
20	½	<b>720 100 756</b>	1	0.240	31	96	30
25	¾	<b>720 100 757</b>	1	0.260	36	97	35
32	1	<b>720 100 758</b>	1	0.383	44	98	40
32	1 ¼	<b>720 100 766</b>	1	0.500	44	100	50
32	1 ½	<b>720 100 767</b>	1	0.562	44	100	60
40	1	<b>720 100 771</b>	1	0.528	54	107	50
40	1 ¼	<b>720 100 759</b>	1	0.584	54	109	50
40	1 ½	<b>720 100 772</b>	1	0.642	54	109	60
50	1	<b>720 100 776</b>	1	0.710	66	116	60
50	1 ¼	<b>720 100 777</b>	1	0.771	66	118	60
50	1 ½	<b>720 100 760</b>	1	0.757	66	118	60
63	1 ¼	<b>720 100 782</b>	1	1.040	81	128	70
63	1 ½	<b>720 100 783</b>	1	1.045	81	128	70
63	2	<b>720 100 761</b>	1	1.115	81	132	70

20 10 02

## Transition Elbow 90° PE/brass (Ms 58) Female Thread

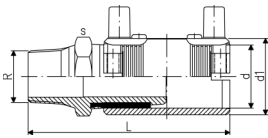


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit

d [mm]	Rp [inch]	Code	SP	kg	d1 [mm]	L [mm]	s [mm]
32	1	<b>720 100 258</b>	1	0.365	44	89	40
40	1 ¼	<b>720 100 259</b>	1	0.556	54	100	50
50	1 ½	<b>720 100 260</b>	1	0.819	66	109	60
63	1	<b>720 100 281</b>	1	1.420	81	123	70
63	1 ¼	<b>720 100 282</b>	1	1.380	81	123	70
63	1 ½	<b>720 100 283</b>	1	1.305	81	123	70
63	2	<b>720 100 261</b>	1	1.165	81	123	70

24 92 07

## Transition Coupler PE/steel (stainless 1.4305) Male Thread

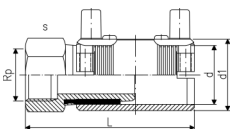


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Delivered as a kit. Further combinations modular system with threaded adapter and reductions

d [mm]	R [inch]	Code	SP	kg	d1 [mm]	L [mm]	s [mm]
20	½	<b>724 920 756</b>	-	0.210	31	110	30
25	¾	<b>724 920 757</b>	-	0.260	36	111	35
32	1	<b>724 920 758</b>	-	0.347	44	117	40
32	1 ½	<b>724 920 767</b>	-	0.330	44	125	60
40	1 ¼	<b>724 920 759</b>	-	0.519	54	127	50
40	1 ½	<b>724 920 772</b>	-	0.690	66	143	60
50	1 ½	<b>724 920 760</b>	1	0.657	66	135	60
63	1 ½	<b>724 920 771</b>	-	0.904	81	147	70
63	2	<b>724 920 761</b>	-	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 kit

d [mm]	Rp [inch]	Code	SP	kg	d1 [mm]	L [mm]	s [mm]
20	½	<b>724 920 256</b>	-	0.197	31	100	30
25	¾	<b>724 920 257</b>	-	0.253	36	101	35
32	1	<b>724 920 258</b>	1	0.340	44	108	40
40	1 ¼	<b>724 920 259</b>	1	0.505	54	118	50
50	1 ½	<b>724 920 260</b>	-	0.725	66	126	60
63	2	<b>724 920 261</b>	-	0.995	81	138	70





# PP-H metric

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	Adaptor Fittings for Socket Fusion	121
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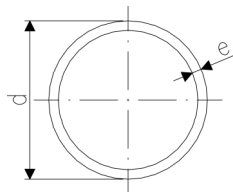
# PP-Pipes

67 48 07

## Pipes S5/SDR11 (PN10)

### Model:

- Material: Polypropylene (PP-H) DIN 8078
- Dimension: DIN 8077
- Colour: RAL 7032 gravel grey
- Length: Lengths of 5 m



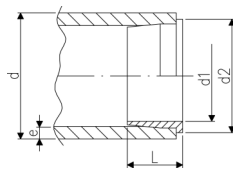
\* In these two sizes, stiffeners Code No. 727 900 006 (20 x 1,9) ad 727 900 007 (25 x 2,3) must be used with socket fusion joints.

d [mm]	PN	Code	kg/m	e [mm]
16	10	<b>167 480 710</b>	0.080	1,8
*20	10	<b>167 480 711</b>	0.107	1,9
*25	10	<b>167 480 712</b>	0.164	2,3
32	10	<b>167 480 713</b>	0.261	2,9
40	10	<b>167 480 714</b>	0.412	3,7
50	10	<b>167 480 715</b>	0.638	4,6
63	10	<b>167 480 716</b>	1.010	5,8
75	10	<b>167 480 717</b>	1.410	6,8
90	10	<b>167 480 718</b>	2.030	8,2
110	10	<b>167 480 719</b>	3.010	10,0
125	10	<b>167 480 720</b>	3.910	11,4
140	10	<b>167 480 721</b>	4.870	12,7
160	10	<b>167 480 722</b>	6.380	14,6
180	10	<b>167 480 723</b>	8.070	16,4
200	10	<b>167 480 724</b>	9.950	18,2
225	10	<b>167 480 725</b>	12.600	20,5
250	10	<b>167 480 726</b>	15.500	22,7
280	10	<b>167 480 727</b>	19.400	25,4
315	10	<b>167 480 728</b>	24.600	28,6
355	10	<b>167 480 729</b>	31.200	32,2
400	10	<b>167 480 730</b>	39.600	36,3

27 90 00

## Stiffeners, PP

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



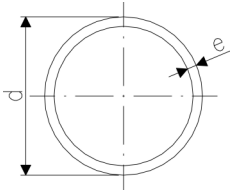
d [mm]	e [mm]	Code	SP	kg	L [mm]	d1 [mm]	d2 [mm]
20	1,9	<b>727 900 006</b>	-	0.002	10	14	18
25	2,3	<b>727 900 007</b>	-	0.003	11	18	23

67 48 10

## Pipes S3,2/SDR7,4 (PN16)

### Model:

- Material: Polypropylene (PP-H) DIN 8078
- Dimension: DIN 8077
- Colour: RAL 7032 gravel grey
- Length: Lengths of 5 m
- For socket fusion without stiffeners
- Not suitable for butt fusion

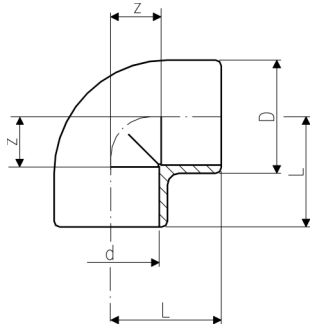


d [mm]	PN	Code	kg/m	e [mm]	
20	16	<b>167 481 028</b>	0.148	2,8	
25	16	<b>167 481 029</b>	0.230	3,5	

# Socket Fusion Fittings

27 10 01

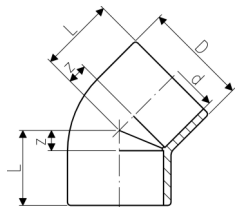
## Elbows 90°, PP-H



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

27 15 01

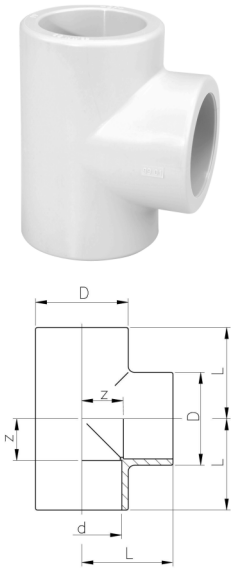
## Elbows 45°, PP-H



d [mm]	PN	Code	SP	kg	D [mm]	L [mm]	z [mm]
16	10	<b>727 150 105</b>	10	0.008	23	20	7
20	10	<b>727 150 106</b>	10	0.016	31	21	7
25	10	<b>727 150 107</b>	10	0.024	36	24	8
32	10	<b>727 150 108</b>	10	0.036	44	28	10
40	10	<b>727 150 109</b>	5	0.059	53	33	13
50	10	<b>727 150 110</b>	5	0.084	64	36	13
63	10	<b>727 150 111</b>	-	0.185	82	43	16
75	10	<b>727 150 112</b>	-	0.234	93	51	20
90	10	<b>727 150 113</b>	-	0.405	114	58	23
110	10	<b>727 150 114</b>	-	0.657	134	68	27

27 20 01

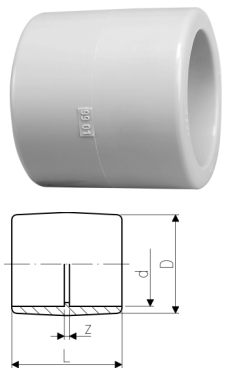
**Tees 90° equal, PP-H**



d [mm]	PN	Code	SP	kg	D [mm]	L [mm]	z [mm]
16	10	<b>727 200 105</b>	10	0.019	26	25	12
20	10	<b>727 200 106</b>	10	0.027	31	28	14
25	10	<b>727 200 107</b>	10	0.038	36	32	16
32	10	<b>727 200 108</b>	10	0.058	44	38	20
40	10	<b>727 200 109</b>	10	0.094	54	44	24
50	10	<b>727 200 110</b>	5	0.158	66	51	28
63	10	<b>727 200 111</b>	-	0.288	82	62	35
75	10	<b>727 200 112</b>	-	0.409	93	76	45
90	10	<b>727 200 113</b>	-	0.739	114	88	53
110	10	<b>727 200 114</b>	-	1.231	134	106	65

27 91 01

**Sockets equal, PP-H**



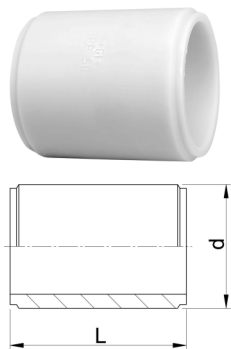
d [mm]	PN	Code	SP	kg	D [mm]	L [mm]	z [mm]
16	10	<b>727 910 105</b>	-	0.010	26	33	7
20	10	<b>727 910 106</b>	10	0.013	31	35	7
25	10	<b>727 910 107</b>	10	0.019	36	39	7
32	10	<b>727 910 108</b>	10	0.026	44	43	7
40	10	<b>727 910 109</b>	10	0.042	54	48	8
50	10	<b>727 910 110</b>	10	0.075	66	54	8
63	10	<b>727 910 111</b>	5	0.129	82	62	8
75	10	<b>727 910 112</b>	-	0.144	93	70	8
90	10	<b>727 910 113</b>	-	0.257	112	81	11
110	10	<b>727 910 114</b>	-	0.405	134	96	14

27 91 09

**Barrel Nipples, PP-H**

**Model:**

- With fusion sockets on both sides
- For the shortest possible distance between fittings
- Overall length L = 2 x fusion length



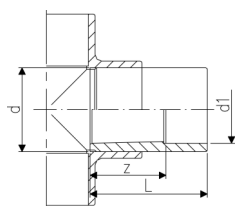
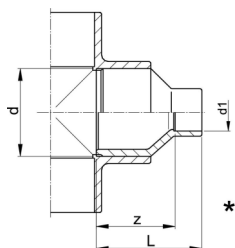
d [mm]	PN	Code	SP	kg	L [mm]
20	10	<b>727 910 906</b>	10	0.005	37
25	10	<b>727 910 907</b>	10	0.006	41
32	10	<b>727 910 908</b>	10	0.010	45
40	10	<b>727 910 909</b>	10	0.017	50
50	10	<b>727 910 910</b>	10	0.029	55
63	10	<b>727 910 911</b>	5	0.058	64
75	10	<b>727 910 912</b>	-	0.096	76
90	10	<b>727 910 913</b>	-	0.167	90
110	10	<b>727 910 914</b>	2	0.305	108

27 91 03

## Reducers, PP-H

Note:

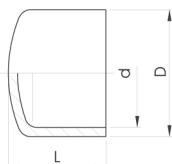
- \* Fusion spigot and socket



d [mm]	d1 [mm]	PN	Code	SP	kg	L [mm]	z [mm]
20	16	10	<b>727 910 334</b>	10	0.009	35	22
25	16	10	<b>727 910 338</b>	10	0.010	38	25
25	20	10	<b>727 910 337</b>	10	0.014	37	23
32	20	10	<b>727 910 342</b>	10	0.016	43	29
32	25	10	<b>727 910 341</b>	10	0.020	43	27
*40	20	10	<b>727 910 348</b>	10	0.022	48	34
*40	25	10	<b>727 910 347</b>	10	0.026	48	32
40	32	10	<b>727 910 346</b>	10	0.031	48	30
*50	20	10	<b>727 910 355</b>	10	0.034	54	40
*50	25	10	<b>727 910 354</b>	10	0.035	54	38
*50	32	10	<b>727 910 353</b>	10	0.040	54	36
50	40	10	<b>727 910 352</b>	10	0.047	54	34
*63	25	10	<b>727 910 361</b>	5	0.058	64	48
*63	32	10	<b>727 910 360</b>	10	0.061	64	46
*63	40	10	<b>727 910 359</b>	5	0.068	64	44
63	50	10	<b>727 910 358</b>	5	0.082	64	41
75	63	10	<b>727 910 364</b>	-	0.098	62	35
*90	63	10	<b>727 910 371</b>	-	0.181	88	61
90	75	10	<b>727 910 370</b>	-	0.134	70	39
110	90	10	<b>727 910 376</b>	-	0.247	81	46

27 96 01

## End Caps, PP-H



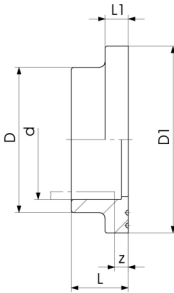
d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
16	10	<b>727 960 105</b>	10	0.008	25	20
20	10	<b>727 960 106</b>	10	0.010	30	27
25	10	<b>727 960 107</b>	10	0.015	36	30
32	10	<b>727 960 108</b>	10	0.024	44	34
40	10	<b>727 960 109</b>	10	0.036	53	38
50	10	<b>727 960 110</b>	10	0.061	65	44
63	10	<b>727 960 111</b>	5	0.098	80	51
75	10	<b>727 960 112</b>	-	0.146	91	65
90	10	<b>727 960 113</b>	-	0.273	111	77
110	10	<b>727 960 114</b>	-	0.417	137	93

27 79 02

## Flange Adapter, PP-H Joining face flat/serrated

### Model:

- Counterpart: Flange Adaptor flat/serrated or with O-ring groove
- Connection: according to EN ISO 15494-1
- Gasket: Flange gasket EPDM No. 48 44 03, FPM No. 49 44 03
- Flanges: PP with steel core, No. 27 70 02, PP-V, No. 27 70 04



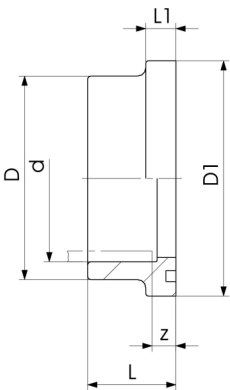
d [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
20	10	<b>727 790 206</b>	10	0.011	27	45	19	7	5
25	10	<b>727 790 207</b>	10	0.022	33	58	21	9	5
32	10	<b>727 790 208</b>	10	0.033	41	68	23	10	5
40	10	<b>727 790 209</b>	10	0.046	50	78	25	11	5
50	10	<b>727 790 210</b>	5	0.062	61	88	28	12	5
63	10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

27 81 01

## Flange Adaptors, PP-H Joining face with O-ring groove

### Model:

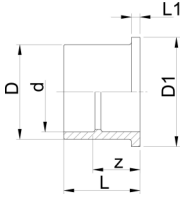
- Counterpart: Flange adaptor flat/serrated, No. 27 79 02
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01
- Flanges: PP with steel core, No. 27 70 02 (mm) or No. 27 70 12 (ANSI), PP-V, No. 27 70 04



d [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
20	10	<b>727 810 106</b>	10	0.007	27	34	22	9	8
25	10	<b>727 810 107</b>	10	0.012	33	41	24	10	8
32	10	<b>727 810 108</b>	10	0.018	41	50	26	10	8
40	10	<b>727 810 109</b>	10	0.027	50	61	30	13	10
50	10	<b>727 810 110</b>	10	0.040	61	73	33	13	10
63	10	<b>727 810 111</b>	5	0.070	76	90	37	14	10
75	10	<b>727 810 112</b>	-	0.105	90	106	40	15	10
90	10	<b>727 810 113</b>	-	0.170	108	125	47	16	12
110	10	<b>727 810 114</b>	2	0.263	131	150	55	18	13

27 80 00

## Outlet Flange Adapter, PP-H 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

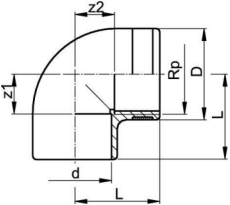
d [mm]	DN [mm]	PN	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]
40	32	6	<b>727 800 009</b>	-	0.060	50	78	55	11	35
50	40	6	<b>727 800 010</b>	-	0.080	61	88	61	12	38
63	50	6	<b>727 800 011</b>	-	0.130	76	102	69	14	41
75	65	6	<b>727 800 012</b>	-	0.160	90	122	79	16	49
90	80	6	<b>727 800 013</b>	-	0.270	107	138	100	17	65
110	100	6	<b>727 800 014</b>	-	0.480	130	158	105	18	62



# Adaptor Fittings for Socket Fusion

27 10 02

## Elbows 90°, PP-H metric - Rp



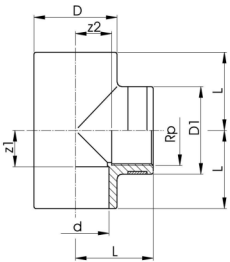
**Model:**

- With fusion socket metric and parallel female thread Rp, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP

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

27 20 02

## Tees 90°, PP-H metric - Rp



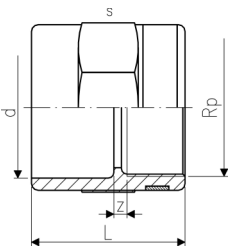
**Model:**

- Line, with fusion socket metric
- Branch, with BSP parallel female thread Rp, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP

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

27 91 02

## Adaptor Sockets, PP-H metric - Rp



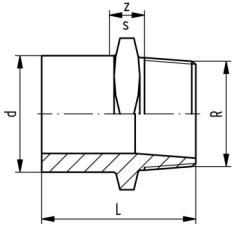
**Model:**

- With fusion socket metric and parallel female thread Rp, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP

d [mm]	Rp [inch]	PN	Code	SP	kg	L [mm]	s [mm]	z [mm]
20	¾	10	<b>727 910 205</b>	10	0.017	35	32	7
20	½	10	<b>727 910 206</b>	10	0.017	40	32	7
25	¾	10	<b>727 910 207</b>	10	0.023	42	36	7
32	1	10	<b>727 910 208</b>	10	0.038	48	46	7
40	1 ¼	10	<b>727 910 209</b>	10	0.056	53	55	7
50	1 ½	10	<b>727 910 210</b>	10	0.089	54	65	9
63	2	10	<b>727 910 211</b>	5	0.137	62	80	9

27 91 05

## Adaptor Nipples, PP-H metric - R



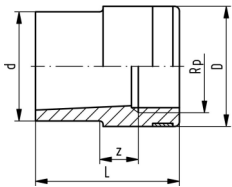
### Model:

- With fusion spigot metric and BSP tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PP

d [mm]	R [inch]	PN	Code	SP	kg	L [mm]	s [mm]	z [mm]
16	3/8	10	<b>727 910 505</b>	10	0.008	37	27	13
20	1/2	10	<b>727 910 506</b>	10	0.012	42	32	13
25	3/4	10	<b>727 910 507</b>	10	0.016	46	36	13
32	1	10	<b>727 910 508</b>	10	0.027	52	46	12
40	1 1/4	10	<b>727 910 509</b>	10	0.041	56	55	14
50	1 1/2	10	<b>727 910 510</b>	10	0.062	60	65	15
63	2	10	<b>727 910 511</b>	5	0.100	69	80	16

27 91 04

## Reducing Bushes, PP-H metric - Rp



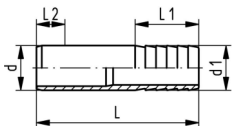
### Model:

- With fusion spigot metric and BSP parallel female thread, reinforced
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- Do not use thread sealing pastes that are harmful to PP

d [mm]	Rp [inch]	PN	Code	SP	kg	L [mm]	z [mm]
20	1/4	10	<b>727 910 433</b>	10	0.008	36	7
20	3/8	10	<b>727 910 434</b>	10	0.011	36	7
25	1/2	10	<b>727 910 437</b>	10	0.015	45	6
32	3/4	10	<b>727 910 441</b>	10	0.023	47	8
40	1	10	<b>727 910 446</b>	10	0.039	53	9
50	1 1/4	10	<b>727 910 452</b>	10	0.061	55	10

27 96 04

## Hose Connectors, PP-H metric



### Model:

- With socket fusion spigot metric and parallel hose connection

d [mm]	d1 [mm]	PN	Code	SP	kg	L [mm]	L1 [mm]	L2 [mm]
20	20	10	<b>727 960 406</b>	10	0.009	78	27	14
25	25	10	<b>727 960 407</b>	10	0.015	91	36	16
32	32	10	<b>727 960 408</b>	10	0.026	100	36	18
40	40	10	<b>727 960 409</b>	10	0.040	104	42	20
50	50	10	<b>727 960 410</b>	10	0.061	90	48	23
63	60	10	<b>727 960 411</b>	5	0.096	100	50	27

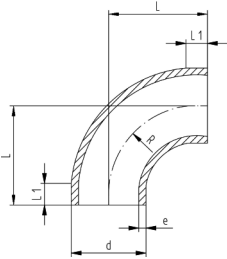
# Butt Fusion Fittings

## Bends 90°, PP-H S5/SDR11 - Type B



### Model:

- Bends with new geometry
- Injection moulding process optimised for Beta-(β)-PP
- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H



<sup>1</sup> PP-R

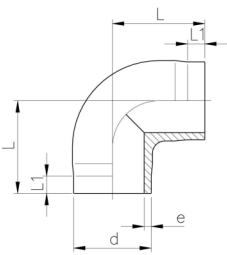
d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	R [mm]	e [mm]
20	--	<b>727 018 481</b>	25	0.005	28	5	22	1,9
25	--	<b>727 018 482</b>	10	0.009	33	7	27	2,3
32	--	<b>727 018 483</b>	10	0.017	41	7	35	2,9
40	--	<b>727 018 484</b>	5	0.036	52	10	44	3,7
50	--	<b>727 018 485</b>	5	0.066	63	10	55	4,6
63	--	<b>727 018 486</b>	5	0.126	77	10	69	5,8
75	IR	<b>727 018 612</b>	-	0.229	100	20	90	6,8
90	IR	<b>727 018 613</b>	-	0.335	100	20	90	8,2
110	IR	<b>727 018 614</b>	-	0.607	141	25	130	10,0
125	IR	<b>727 018 490</b>	-	0.790	140	15	125	11,4
140	IR	<b>727 018 491</b>	-	1.080	155	15	140	12,7
160	IR	<b>727 018 492</b>	-	1.600	175	15	160	14,6
180	IR	<b>727 018 493</b>	-	2.600	195	15	180	16,4
200	IR	<b>727 018 494</b>	-	3.130	215	15	200	18,2
225	IR	<b>727 018 495</b>	-	4.230	245	20	225	20,5
250	--	<b>727 018 521</b>	-	6.450	256	48	232	22,7
280	--	<b>727 018 522</b>	-	9.500	286	48	262	25,4
315	--	<b>727 018 523</b>	-	12.800	321	48	297	28,6
355	--	<b>727 018 574</b>	-	19.400	380	15	300	32,2
400	--	<b>727 018 575</b>	-	28.500	435	25	300	36,3

27 10 85

## Elbows 90°, PP-H S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

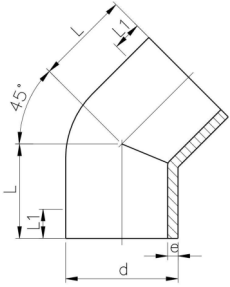


d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	<b>727 108 506</b>	10	0.007	38	25	1,9
25	IR	<b>727 108 507</b>	10	0.012	42	26	2,3
32	IR	<b>727 108 508</b>	10	0.022	46	27	2,9
40	IR	<b>727 108 509</b>	10	0.044	51	22	3,7
50	IR	<b>727 108 510</b>	10	0.077	58	23	4,6
63	IR	<b>727 108 511</b>	-	0.138	66	21	5,8

27 15 85

**Elbows 45°, PP-H S5/SDR11****Model:**

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

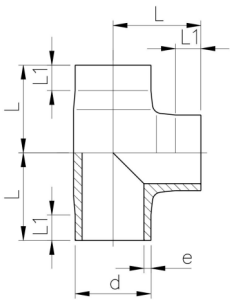


d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	727 158 506	10	0.006	32	24	1,9
25	IR	727 158 507	10	0.010	34	25	2,3
32	IR	727 158 508	10	0.020	36	25	2,9
40	IR	727 158 509	10	0.037	39	25	3,7
50	IR	727 158 510	10	0.054	42	26	4,6
63	IR	727 158 511	10	0.097	47	29	5,8
75	IR	727 158 512	-	0.135	49	29	6,8
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
200	IR	727 158 519	-	2.460	124	75	18,2
225	IR	727 158 520	-	3.400	140	85	20,5

27 20 85

**Tee 90° equal, S5/SDR11****Model:**

- Material: Polypropylene (PP-H)
- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

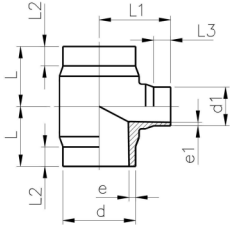
**1 PP-R**

d [mm]	FM	Code	SP	kg	L [mm]	L1 [mm]	e [mm]
20	IR	727 208 506	10	0.011	38	24	1,9
25	IR	727 208 507	10	0.018	42	26	2,3
32	IR	727 208 508	10	0.030	46	26	2,9
40	IR	727 208 509	10	0.059	51	22	3,7
50	IR	727 208 510	10	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	100	32,2
400	--	727 208 575	-	38.000	360	102	36,3

27 20 83

**Tee 90° reduced, S5/SDR11****Model:**

- Material: Polypropylene (PP-H)
- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H



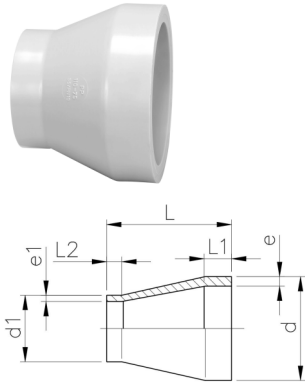
d	d1	FM	Code	SP	kg	L	L1	L2	L3	e	e1	
[mm]	[mm]					[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
63	32	IR	<b>727 208 351</b>	-	0.160	65	70	25	25	5,8	2,9	
63	50	IR	<b>727 208 352</b>	-	0.170	65	70	25	25	5,8	4,6	
75	32	IR	<b>727 208 353</b>	-	0.240	70	75	25	25	6,8	2,9	
75	50	IR	<b>727 208 354</b>	-	0.250	70	75	25	25	6,8	4,6	
75	63	IR	<b>727 208 355</b>	-	0.260	70	75	25	25	6,8	5,8	
90	50	IR	<b>727 208 357</b>	-	0.410	80	85	25	25	8,2	4,6	
90	63	IR	<b>727 208 358</b>	-	0.420	80	85	25	25	8,2	5,8	
90	75	IR	<b>727 208 359</b>	-	0.440	80	85	25	25	8,2	6,8	
110	32	IR	<b>727 208 360</b>	-	0.650	90	95	30	25	10,0	2,9	
110	50	IR	<b>727 208 361</b>	-	0.670	90	95	30	25	10,0	4,6	
110	63	IR	<b>727 208 362</b>	-	0.680	90	95	30	25	10,0	5,8	
110	75	IR	<b>727 208 363</b>	-	0.690	90	95	30	25	10,0	6,8	
110	90	IR	<b>727 208 364</b>	-	0.700	90	95	30	25	10,0	8,2	
160	63	IR	<b>727 208 371</b>	-	2.125	142	135	50	30	14,6	5,8	
160	75	IR	<b>727 208 372</b>	-	2.140	142	135	50	30	14,6	6,8	
160	90	IR	<b>727 208 373</b>	-	2.160	142	135	50	30	14,6	8,2	
160	110	IR	<b>727 208 374</b>	-	2.200	142	135	50	30	14,6	10,0	
225	90	IR	<b>727 208 388</b>	-	4.530	155	165	40	30	20,5	8,2	
225	110	IR	<b>727 208 389</b>	-	4.520	155	165	40	30	20,5	10,0	
225	160	IR	<b>727 208 391</b>	-	4.530	155	165	40	30	20,5	14,6	

## Reducers, PP-H S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

### <sup>1</sup> PP-R



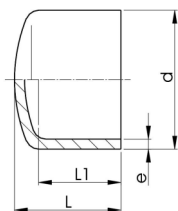
d	d1	FM	Code	SP	kg	L	L1	L2	e	e1
[mm]	[mm]					[mm]	[mm]	[mm]	[mm]	[mm]
25	20	IR	727 908 537	10	0.007	50	20	20	2,3	1,9
32	20	IR	727 908 542	10	0.010	50	20	20	2,9	1,9
32	25	IR	727 908 541	10	0.011	50	20	20	2,9	2,3
40	20	IR	727 908 548	10	0.015	58	20	23	3,7	1,9
40	25	IR	727 908 547	10	0.016	55	20	20	3,7	2,3
40	32	IR	727 908 546	10	0.019	55	20	20	3,7	2,9
50	25	IR	727 908 554	10	0.025	60	20	20	4,6	2,3
50	32	IR	727 908 553	10	0.027	60	20	20	4,6	2,9
50	40	IR	727 908 552	10	0.030	60	20	20	4,6	3,7
63	32	IR	727 908 560	10	0.043	65	20	20	5,8	2,9
63	40	IR	727 908 559	10	0.047	65	20	20	5,8	3,7
63	50	IR	727 908 558	10	0.052	65	20	20	5,8	4,6
75	40	IR	727 908 566	10	0.058	68	20	20	6,8	3,7
75	50	IR	727 908 565	10	0.065	65	20	20	6,8	4,6
75	63	IR	727 908 564	10	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
<sup>1</sup> 280	225	--	727 908 992	-	1.804	200	85	80	25,4	20,5
<sup>1</sup> 280	250	--	727 908 991	-	1.311	200	85	90	25,4	22,7
<sup>1</sup> 315	225	--	727 908 997	-	2.615	230	95	85	28,6	20,5
<sup>1</sup> 315	250	--	727 908 996	-	2.204	230	95	95	28,6	22,7
<sup>1</sup> 315	280	--	727 908 995	-	1.590	230	95	107	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

## End Caps, PP-H S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H

<sup>1</sup> PP-R



d [mm]	FM	Code	SP	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
<sup>1</sup> 250	--	727 968 946	-	2.700	205	130	22,7
<sup>1</sup> 280	--	727 968 947	-	3.100	230	139	25,4
<sup>1</sup> 315	--	727 968 948	-	6.600	255	150	28,6
<sup>1</sup> 355	--	727 968 949	-	9.000	280	165	32,2
<sup>1</sup> 400	--	727 968 950	-	12.500	310	180	36,3

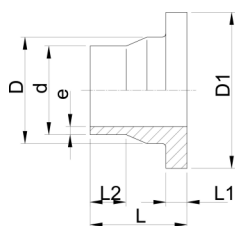
## Flange Adaptors, PP-H S5/SDR11

### Joining Face, combination serrated / flat metric

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Suitable for flange connections to metric (**from d110 also to ANSI B16.5**)
- Do **not** use these flange adaptors when installing butterfly valves. Please use the special flange adaptors provided.

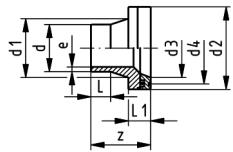
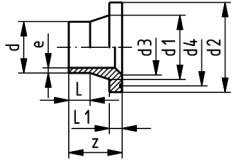
<sup>1</sup> PP-R



d [mm]	DN [mm]	FM	Code	SP	kg	D [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]
20	15	IR	727 798 506	10	0.015	26	45	50	7	29	1,9
25	20	IR	727 798 507	10	0.028	32	58	52	9	27	2,3
32	25	IR	727 798 508	10	0.042	40	68	54	10	28	2,9
40	32	IR	727 798 509	10	0.064	49	78	56	11	25	3,7
50	40	IR	727 798 510	-	0.088	60	88	62	12	32	4,6
63	50	IR	727 798 511	-	0.144	75	102	68	14	38	5,8
75	65	IR	727 798 512	-	0.243	89	122	80	16	43	6,8
90	80	IR	727 798 513	-	0.326	105	138	80	17	41	8,2
110	100	IR	727 798 514	-	0.441	125	158	80	18	40	10,0
125	100	IR	727 798 515	-	0.520	132	158	82	25	35	11,4
140	125	IR	727 798 516	-	0.800	155	188	89	25	39	12,7
*160	150	IR	727 798 517	-	0.920	175	212	92	25	42	14,6
180	150	IR	727 798 568	-	0.900	182	212	80	30	50	16,4
*200	200	IR	727 798 519	-	1.670	232	218	100	32	34	18,2
*225	200	IR	727 798 520	-	1.700	235	268	100	32	36	20,5
250	250	--	727 798 571	-	2.790	285	320	100	35	25	22,7
280	250	--	727 798 572	-	2.610	291	320	100	35	35	25,4
315	300	--	727 798 573	-	3.410	335	370	100	35	25	28,6
<sup>1</sup> 355	350	--	727 798 574	-	5.600	373	430	120	40	20	32,2
<sup>1</sup> 400	400	--	727 798 575	-	8.300	427	482	120	46	29	36,3

27 79 88

## Special Flange Adaptors, PP-H S5/SDR11 Jointing Face serrated



### Model:

- Conventional butt-welding according to DVS 2207 part 1
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PP-H
- Suitable for butterfly valves
- Chamfered and ready for use

\* Including spacer and O-Ring EPDM

<sup>1</sup> PP-R

d [mm]	DN [mm]	FM	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	
75	65	IR	<b>727 798 812</b>	-	0.210	89	122	66	80	16	43	6,8	
90	80	IR	<b>727 798 813</b>	-	0.210	105	138	78	80	17	28	8,2	
110	100	IR	<b>727 798 814</b>	-	0.440	125	158	100	80	18	28	10,0	
140	125	IR	<b>727 798 816</b>	-	0.800	155	188	127	89	25	37	12,7	
160	150	IR	<b>727 798 817</b>	-	0.900	175	212	153	92	25	41	14,6	
180	150	IR	<b>727 798 818</b>	-	0.920	180	212	154	80	30	20	16,4	
200	200	IR	<b>727 798 819</b>	-	1.580	232	268	208	100	32	34	18,2	
225	200	IR	<b>727 798 820</b>	-	1.700	235	268	204	100	32	36	20,5	
<sup>1</sup> 250	250	--	<b>727 798 821</b>	-	2.450	285	320	254	100	35	25	22,7	
280	250	--	<b>727 798 822</b>	-	3.400	291	320	260	100	35	45	25,4	
<sup>1</sup> 315	300	--	<b>727 798 823</b>	-	4.400	335	370	309	100	35	35	28,6	
*355	350	--	<b>727 798 824</b>	-	7.500	380	430	346	155	75	40	32,2	
*400	400	--	<b>727 798 825</b>	-	10.300	427	482	404	176	82	50	36,3	

27 80 80

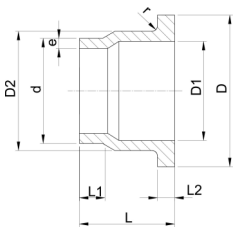
## Outlet Flange Adaptors, PP-R S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- To wafer check valves Type 369

### Attention:

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

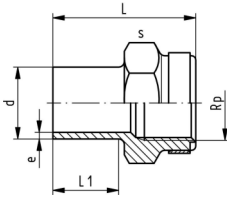


d [mm]	DN [mm]	Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]	
40	32	<b>727 808 034</b>	-	0.064	80	37	50	64	30	11	3,7	3	
50	40	<b>727 808 035</b>	-	0.088	90	43	61	67	30	12	4,6	3	
63	50	<b>727 808 036</b>	-	0.126	105	54	76	74	30	14	5,8	4	
75	65	<b>727 808 037</b>	-	0.187	125	70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



# Adaptor Fittings for Butt Fusion

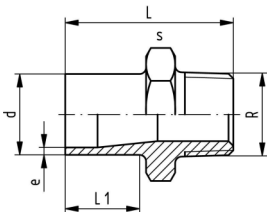
## Adaptor Sockets, PP-H metric - Rp



### Model:

- With butt fusion spigot **SDR11** and BSP parallel female thread Rp, reinforced
- Connection to plastic or metal
- 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]	Rp [inch]	PN	FM	Code	SP	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	½	10	IR	<b>727 910 266</b>	10	0.017	48	23	32	1,9
25	¾	10	IR	<b>727 910 267</b>	10	0.022	50	23	36	2,3
32	1	10	IR	<b>727 910 268</b>	10	0.038	54	23	46	2,9
40	1 ¼	10	IR	<b>727 910 269</b>	10	0.066	56	23	55	3,7
50	1 ½	10	IR	<b>727 910 270</b>	10	0.090	60	23	65	4,6
63	2	10	IR	<b>727 910 271</b>	5	0.140	62	23	80	5,8

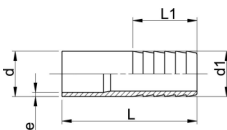


## Adaptor Nipples, PP-H metric - R

### Model:

- With butt fusion spigot and BSP tapered male thread
- Connection to plastic thread 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	FM	Code	SP	kg	L [mm]	L1 [mm]	s [mm]	e [mm]
20	½	10	IR	<b>727 910 556</b>	10	0.013	51	23	32	1,9
25	¾	10	IR	<b>727 910 557</b>	10	0.026	52	23	36	2,3
32	1	10	IR	<b>727 910 558</b>	10	0.028	55	23	46	2,9
40	1 ¼	10	IR	<b>727 910 559</b>	10	0.041	58	23	55	3,7
50	1 ½	10	IR	<b>727 910 560</b>	10	0.062	60	23	65	4,6
63	2	10	IR	<b>727 910 561</b>	5	0.096	67	26	80	5,8



## Hose connectors, PP-H metric

### Model:

- With butt fusion spigot **SDR11** and parallel hose connection

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

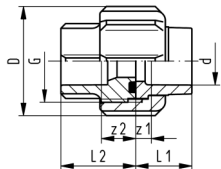
# Unions for Socket Fusion

EPDM 27 51 01  
FPM 27 52 01

## Unions, PP-H metric

### Model:

- With fusion sockets 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**

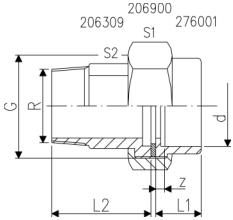
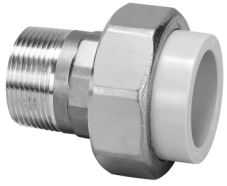


d [mm]	PN	EPDM Code	FPM Code	SP	kg
16	10	<b>727 510 155</b>	<b>727 520 155</b>	10	0.020
20	10	<b>727 510 156</b>	<b>727 520 156</b>	10	0.038
25	10	<b>727 510 157</b>	<b>727 520 157</b>	10	0.062
32	10	<b>727 510 158</b>	<b>727 520 158</b>	10	0.079
40	10	<b>727 510 159</b>	<b>727 520 159</b>	10	0.137
50	10	<b>727 510 160</b>	<b>727 520 160</b>	10	0.180
63	10	<b>727 510 161</b>	<b>727 520 161</b>	-	0.312
75	10	<b>727 510 172</b>	<b>727 520 172</b>	-	0.450
90	10	<b>727 510 173</b>	<b>727 520 173</b>	-	0.645
110	10	<b>727 510 174</b>	<b>727 520 174</b>	-	1.020

d [mm]	D [mm]	G [inch]	L1 [mm]	L2 [mm]	z [mm]	z1 [mm]
16	35	3/4	18	24	5	11
20	48	1	19	26	5	12
25	58	1 1/4	21	28	5	12
32	65	1 1/2	23	30	5	12
40	79	2	25	34	5	14
50	91	2 1/4	28	39	5	16
63	111	2 3/4	32	47	5	20
75	135	S107,5x3,6	36	51	5	20
90	158	S127,5x3,6	42	55	7	20
110	188	S152,5x3,6	49	54	7	12

# Adaptor Unions

27 55 07



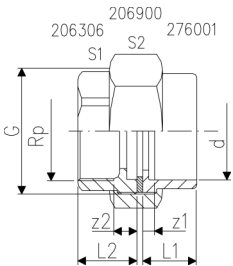
## Adaptor Unions Brass - PP-H

### Model:

- Union End: Fusion socket, PP-H metric
- Union Bush: Brass, BSP tapered male thread
- Union Nut: brass
- Gasket: flat gasket EPDM No. 48 40 00

d [mm]	R [inch]	PN	Code	SP	kg	G [inch]	L1 [mm]	L2 [mm]	S1 [mm]	S2 [mm]	z [mm]	
16	3/8	10	<b>727 550 705</b>	10	0.114	3/4	18	29	30	27	5	
20	1/2	10	<b>727 550 706</b>	10	0.139	1	19	32	38	26	5	
25	3/4	10	<b>727 550 707</b>	5	0.291	1 1/4	21	49	47	32	5	
32	1	10	<b>727 550 708</b>	5	0.349	1 1/2	23	53	52	38	5	
40	1 1/4	10	<b>727 550 709</b>	2	0.614	2	25	54	66	60	5	
50	1 1/2	10	<b>727 550 710</b>	2	0.746	2 1/4	28	61	72	66	5	
63	2	10	<b>727 550 711</b>	-	1.115	2 3/4	32	69	87	83	5	

27 55 02



## Adaptor Unions Brass - PP-H

### Model:

- Union End: Fusion socket, PP-H metric
- Union Bush: Brass, BSP parallel female thread Rp
- Union Nut: brass
- Gasket: flat gasket EPDM No. 48 40 00




d [mm]	Rp [inch]	PN	Code	SP	kg	G [inch]	L1 [mm]	L2 [mm]	S1 [mm]	S2 [mm]	z1 [mm]	z2 [mm]	
16	3/8	10	<b>727 550 205</b>	10	0.091	3/4	18	17	30	27	5	7	
20	1/2	10	<b>727 550 206</b>	10	0.138	1	19	20	38	27	5	7	
25	3/4	10	<b>727 550 207</b>	5	0.235	1 1/4	21	23	47	32	5	8	
32	1	10	<b>727 550 208</b>	5	0.272	1 1/2	23	26	52	38	5	9	
40	1 1/4	10	<b>727 550 209</b>	2	0.467	2	25	28	66	47	5	9	
50	1 1/2	10	<b>727 550 210</b>	2	0.519	2 1/4	28	29	72	53	5	10	
63	2	10	<b>727 550 211</b>	2	0.816	2 3/4	32	34	87	65	5	10	

# Program overview

Welding technique	Types	Application range d																				Page																																								
		16	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355		400	450	500	560	630	710	800	900	1000	1200																														
Socket fusion	MSE 63	█																																7-8																												
	MSG 140	█																																					8-9																							
	MSE 110	█											█																														7-8																			
	SG 110	█		█																																			21-23																							
	SG 160	█											█																															24-30																		
Butt fusion	manual workshop	SSE 120/200/300	█																																																									6-7		
		MC 110 WELD	█											█																														11-14																		
		160/250	█											█																															15-18																	
		ASM 160	█											█																															19-20																	
		SG 160	█											█																																24-30																
		SG 315	█											█																																31-36																
	workshop	WM 315	█											█																															38-42																	
		WM 500	█											█																																43-47																
		WM 63	█											█																																48-52																
	conventional/hydraulic site	KL160 GF 160	█											█																															54-57 66-73																	
		KL 250 GF 250	█											█																															58-61																	
		KL 315 GF 315	█											█																															62-65 82-89																	
		GF 500	█											█																															90-94																	
GF 630		█											█																															95-99																		
GF 800		█											█																																100-102																	
GF 1000		█											█																																103-105																	
GF 1200		█											█																																106-108																	
New fusion technologies	KRA 63/110/160	█																																																												115
	KRT 250	█											█																															116-118																		
Plastic pipe cutters	KS 355/1600	█											█																															119-120																		
	KRG 225/315	█											█																																115																	
Electro fusion tools	BS 315/450/630	█											█																															121																		

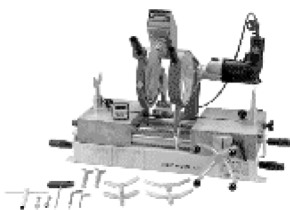
\* Please ask your local GF sales contact for details

# Tools PE 100 / PP-H

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# Conventional Butt and Socket Fusion Machines

## 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 PN 16.

Socket fusion d 16 - 110 mm

### Basic 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

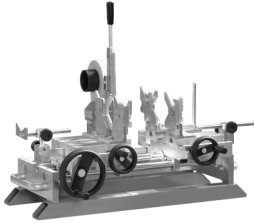
### Heater

- 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

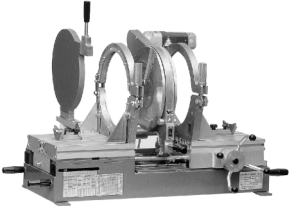
d-d [mm]	Performance	Code	kg	
16 - 160	230 V	<b>790 103 031</b>	45.000	
16 - 160	115 V	<b>790 103 033</b>	45.000	



## 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 d 20 - 110 mm
- **Base machine**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- **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.
- Depth stop
- V-shaped pipe support d 20 - 110 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times

d-d [mm]	Performance	Code	SP	kg	
20 - 110	230 V/1200 W	<b>790 310 001</b>	-	65.000	
20 - 110	115 V/1200 W	<b>790 310 003</b>	-	64.000	



## 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, maximum fusion force 350 daN.

### Basic 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

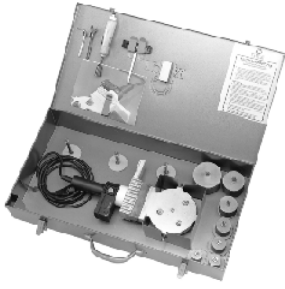
- high-performance and precision heater with electronic temperature control 1700 W
- high accuracy of +/- 4°C over the entire heating surface
- heater temperature can be set exactly with digital LCD
- high quality, non-stick, easy to change PTFE coating
- with digital temperature indicator

### 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

d-d [mm]	Performance	Code	kg	
90 - 315	230 V	<b>790 130 001</b>	128.000	
90 - 315	115 V	<b>790 130 002</b>	128.000	





## MSG 140/63 Socket fusion tool

For the fusion jointing of PP, PE, PB and PVDF pipes and fittings size range d 16 - 63 mm

- device is equipped with on/off switch, mains control and control lamp for heating intervals
- thermostatic temperature control
- support of heating spigots and bushes from d 16 - 63 mm
- pick up for floor stand or table clamp
- high quality PTFE non-stick coating with long service life
- monitoring and setting of heating element temperature according to DVS 2208
- high temperature accuracy over the entire heating surface
- complete set in a practical metal case
- heating bushes and spigots d 16 - 63 mm
- allen screws and keys

\* as long as on stock

d-d [mm]	Performance	Code	kg
*16 - 63	230 V/1400	<b>799 350 015</b>	11.700
*16 - 63	115 V/1400	<b>799 350 019</b>	11.650



## Manual pipe peeling and chamfering tools

d [mm]	Code	SP	kg
20	<b>799 300 260</b>	-	0.059
25	<b>799 300 270</b>	-	0.074
32	<b>799 300 280</b>	-	0.100
40	<b>799 300 290</b>	-	0.259
50	<b>799 300 300</b>	-	0.299
63	<b>799 300 310</b>	-	0.513
75	<b>799 300 320</b>	-	0.750
90	<b>799 300 330</b>	-	1.070
110	<b>799 300 340</b>	-	1.350



## PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

d-d [mm]	Article	Code	SP	kg
10 - 63	PPC 63, s max. = 7,2mm	<b>790 109 001</b>	-	0.710
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	-	1.400
110 - 160	PPC 160, s max. = 19,0mm	<b>790 109 003</b>	-	1.880

# Tools and Control Units for Electro Fusion



## MSA 250 EX Multi Automatic Electrofusion Unit

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. Single push-button operation, display shows fusion time and energy consumed. Inclusive transport box, 1 pair of angle adapter clips 4.0 mm and operating instructions.

For PE, INSTAFLEX PB  $\varnothing$  125, 160, 225, Fuseal Sea Drain

### Technical Data

Ambient temperature	-10 °C - +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
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	285 x 360 x 200 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LED 1 x 4 N, 7 Segments
Size display (WxH)	50 x 18 mm
Type size	14 mm
Warranty	24 months

Code	Description
799 360 404	Standard, with barcode reader pen+transport case



## MSA 300 Automatic Electrofusion Unit

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 24 different languages. Inclusive transport box, 1 pair of angle adapter clips 4.0 mm, operating instructions and configuration card.

### Technical Data

Ambient temperature	-10 °C - +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
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	285 x 360 x 200 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	German, English, French, Chinese, Czech, Hungarian, Italian, Norwegian, Dutch, Polish, Rumanian, Slovakian, Portuguese, Danish, Spanish, Estonian, Finnish, Croatian, Lithuanian, Swedish, Slovenian, Turkish, Russian, Bulgarian
Warranty	24 months

Code	kg	Description
<b>799 350 375</b>	16.800	Standard, with barcode reader pen+transport case
<b>799 350 431</b>	16.800	Plus, with barcode scanner+transport case
<b>799 350 383</b>	16.800	Standard CH Power plug, with barcode reader pen+transport case



## MSA 350 Record Electrofusion Unit

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 barcode reader pen, optional with barcode scanner. The unit is robust, light and easy to use. The menu has up to 24 different languages. Inclusive transport box, 1 pair of angle adapter clips 4.0 mm, operating instructions, configuration card and Software MSA WIN-WELD. (for read out of fusion data are the Data transfer cable PC, Code 799 350 385 or the Memory card 256 kB, Code 799 350 395 required).

### Technical Data

Ambient temperature	-10 °C - +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
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	285 x 360 x 200 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	German, English, French, Chinese, Czech, Hungarian, Italian, Norwegian, Dutch, Polish, Rumanian, Slovakian, Portuguese, Danish, Spanish, Estonian, Finnish, Croatian, Lithuanian, Swedish, Slovenian, Turkish, Russian, Bulgarian
Warranty	24 months

Code	kg	Description
799 350 391	11.500	Standard, with barcode reader pen+transport case
799 350 441	16.800	Plus, with barcode scanner+transport case
799 350 392	16.800	Standard CH Power plug, with barcode reader+transport case



## Rotary Peeler RS

This innovative Rotary Peeler RS is designed to use for universal peeling at the pipe end for electrofusion couplings, tees and elbows and as well as for electrofusion saddles. Suitable for peeling of pipes made out of PE80, PE100, PEX, PP.

### Feature and your advantage:

**Spring loaded peeling blade:** Independent peeling quality 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

**Divisible tool:** Peeling for saddles with the same tool

**Peeling length:** No limitation of peeling length

**Guidance rolls:** 3 point support for dimensional optimized cutting feed, time saving

**Guidance rolls with smooth surface:** No damage of pipe surface, no dirty guidance rolls

**Time saving:** Tool is always ready to use, it can be used for the next peeling without setting 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 for change of dimension.

**Included:** 1 x Rotary Peeler RS, Transport case, Operating manual, Spare parts list

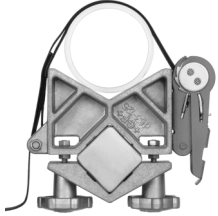
Article	d [mm]	Code	SP	kg	
RS 40	40	<b>790 136 001</b>	-	1.250	
RS 50	50	<b>790 136 002</b>	-	1.250	
RS 63	63	<b>790 136 003</b>	-	1.250	
RS 75	75	<b>790 136 004</b>	-	1.450	
RS 90	90	<b>790 136 005</b>	-	1.450	
RS 110	110	<b>790 136 006</b>	-	1.450	
RS 125	125	<b>790 136 007</b>	-	1.650	
RS 140	140	<b>790 136 008</b>	-	1.650	
RS 160	160	<b>790 136 009</b>	-	1.650	
RS 180	180	<b>790 136 010</b>	-	1.850	
RS 200	200	<b>790 136 011</b>	-	1.850	
RS 225	225	<b>790 136 012</b>	-	1.850	
RS 250	250	<b>790 136 013</b>	-	2.150	
RS 280	280	<b>790 136 014</b>	-	2.150	
RS 315	315	<b>790 136 015</b>	-	2.150	

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 vee-clamps complete with ratchet and belt.



d-d [mm]	Code	SP	kg
63 - 125	<b>799 301 484</b>	-	2.795
110 - 225	<b>799 301 486</b>	-	10.000
225 - 500	<b>799 301 488</b>	-	15.000

## Manual pipe peeling and chamfering tools



d [mm]	Code	SP	kg
20	<b>799 300 260</b>	-	0.059
25	<b>799 300 270</b>	-	0.074
32	<b>799 300 280</b>	-	0.100
40	<b>799 300 290</b>	-	0.259
50	<b>799 300 300</b>	-	0.299
63	<b>799 300 310</b>	-	0.513
75	<b>799 300 320</b>	-	0.750
90	<b>799 300 330</b>	-	1.070
110	<b>799 300 340</b>	-	1.350



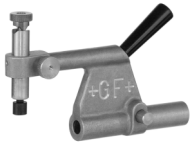
## PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

d-d [mm]	Article	Code	SP	kg
10 - 63	PPC 63, s max. = 7,2mm	<b>790 109 001</b>	-	0.710
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	-	1.400
110 - 160	PPC 160, s max. = 19,0mm	<b>790 109 003</b>	-	1.880

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, P
- 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	SP	kg	Description
20 - 90	<b>799 150 382</b>	-	3.400	Basic Tool PT 1 E

9 300 725

**Pipe Inserts for Peeling Tool PT 1 E**

d [mm]	Inch	Code	SP	kg	Description
20	2	<b>799 300 739</b>	-	0.220	Pipe Insert SDR 11
20	3	<b>799 300 741</b>	-	0.220	Pipe Insert SDR 7
25	2	<b>799 300 740</b>	-	0.230	Pipe Insert SDR 11
25	3	<b>799 300 742</b>	-	0.230	Pipe Insert SDR 9
32	3	<b>799 300 743</b>	-	0.230	Pipe Insert SDR 11
40	4	<b>799 300 744</b>	-	0.230	Pipe Insert SDR 11
50	5	<b>799 300 745</b>	-	0.350	Pipe Insert SDR 11
63	4	<b>799 300 725</b>	-	0.475	Pipe Insert SDR 17
63	6	<b>799 300 746</b>	-	0.475	Pipe Insert SDR 11
75	5	<b>799 300 727</b>	-	0.601	Pipe Insert SDR 17
75	7	<b>799 300 747</b>	-	0.601	Pipe Insert SDR 11
90	5	<b>799 300 748</b>	-	0.834	Pipe Insert SDR 17
90	8	<b>799 300 749</b>	-	0.220	Pipe Insert SDR 11

**Accessories for Peeling Tool PT 1 E**

PT 1 E

- Replacement blade.

d-d [mm]	Piece	Code	SP	kg	Description
20 - 90	1	<b>799 150 383</b>	-	0.150	Replacement blade, 1 piece

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	SP	kg	Description
90 - 250	<b>799 300 753</b>	-	5.100	Size 1, peeling length 140 mm
110 - 400	<b>799 300 755</b>	-	7.320	Size 2, peeling length 150 mm
110 - 500	<b>799 300 756</b>	-	11.000	Size 3, peeling length 175 mm

9 300 750

**Accessories for Peeling Tool PT 2**

PT 2

- Replacement blade.

d-d [mm]	Code	SP	kg
90 - 500	<b>799 150 355</b>	-	0.008

# Cleaning Fluid

## KS Tangit Cleaner

- Special cleaning agent for plastic fusion connections with PP, PE, PVDF and PB.



Code	SP	kg	
799 298 023	-	0.890	

5311

## Tangit KS-Cleaning Tissues



Code	SP	kg	
799 298 024	8	0.380	





## Temperature and Pressure ABS

The permissible working temperature range for an ABS pipe system is from  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ .

The pressure ratings for ABS pipe, fittings and valves are as follows:

### Metric

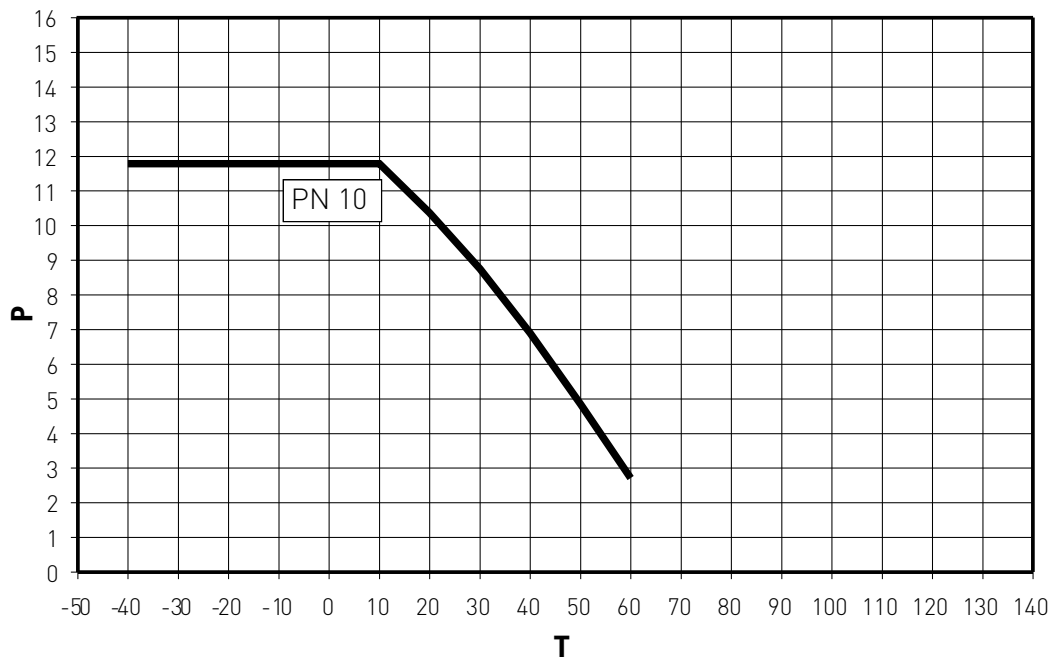
Pipe		10 bar	(PN 10 or 145 lbf/in <sup>2</sup> )
Fittings	16–225 mm	10 bar	(PN 10 or 145 lbf/in <sup>2</sup> )
Valves		10 bar	(PN 10 or 145 lbf/in <sup>2</sup> )

Pressure ratings for thermoplastic pipework are always quoted at  $20^{\circ}\text{C}$ . It can be used at higher temperatures, but it is a fundamental principle in thermoplastic pipework that if the temperature is increased then the pressure rating must be reduced. Reduction factors can apply when using media other than water. Please consult our technical advisory service.

The table below shows, for an ABS pipe system, the maximum permissible pressures at various temperatures up to the maximum of  $60^{\circ}\text{C}$ . The table is based on an ambient temperature of  $20^{\circ}\text{C}$  with water as the medium.

A design factor of 2.0 is incorporated into all calculations with a life span of 25 years.


For metric pipes and fittings (25 years operation with a design factor = 2.0)



P Permissible pressure in bar  
T Temperature in  $^{\circ}\text{C}$

According to the 10° line in the hydrostatic strength curve for ABS a permissible pressure of 12 bar in the temperature range of  $-40^{\circ}$  to  $+10^{\circ}\text{C}$  for the PN 10 system can be applied.

# ABS metric

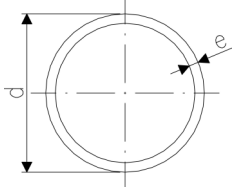
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# Metric Pipe

## Pipe 5 metre lengths, ABS metric

### Model:

- Material: ABS
- Colour: RAL 7001, gravel grey
- Length: Lengths of 5 m
- PN6 (6 bar) / PN10 (10 bar) / PN16 (16 bar) at 20°C



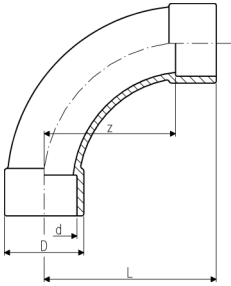
d [mm]	PN	Code	kg/m	e [mm]
16	16	<b>169 017 080</b>	0.095	1.8
20	16	<b>169 017 081</b>	0.152	2.3
25	16	<b>169 017 082</b>	0.193	2.3
32	10	<b>169 017 083</b>	0.212	1.9
40	10	<b>169 017 084</b>	0.334	2.4
50	10	<b>169 017 085</b>	0.523	3.0
63	10	<b>169 017 086</b>	0.834	3.8
75	10	<b>169 017 087</b>	1.176	4.5
90	10	<b>169 017 088</b>	1.693	5.4
110	10	<b>169 017 089</b>	2.529	6.6
140	10	<b>169 017 091</b>	4.489	8.6
160	10	<b>169 017 092</b>	5.856	9.9
200	10	<b>169 017 093</b>	9.133	12.3
225	10	<b>169 017 094</b>	11.605	13.9
250	6	<b>169 017 095</b>	14.800	9.6
280	6	<b>169 017 096</b>	16.800	10.7
315	6	<b>169 017 097</b>	20.500	12.1

# Adhesive Jointed Fittings

29 00 01

## Bend 90°, ABS metric

- Radius = 2 d



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20	16	<b>729 000 106</b>	-	0.027	40	27	58
25	16	<b>729 000 107</b>	10	0.038	50	35	69
32	10	<b>729 000 108</b>	-	0.051	64	38	86
40	10	<b>729 000 109</b>	-	0.158	80	54	109
50	10	<b>729 000 110</b>	-	0.206	100	61	131
63	10	<b>729 000 111</b>	-	0.387	126	76	164
75	10	<b>729 000 112</b>	-	0.585	150	90	194
90	10	<b>729 000 113</b>	-	0.750	180	113	231
110	10	<b>729 000 114</b>	-	2.030	220	137	281
140	10	<b>729 000 116</b>	-	4.100	280	168	356
160	10	<b>729 000 117</b>	-	5.600	320	191	406

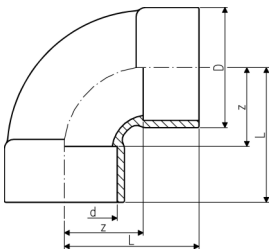
29 01 01

## Bend 90° short pattern, ABS metric

- Radius = 0,75 d
- >d225 - maximum operating temperature: +40°C



$r = 0,75 d$

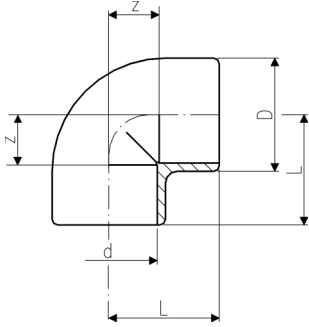


d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
225	10	<b>729 010 120</b>	-	5.650	168	256	287
280	6	<b>729 010 122</b>	-	16.000	210	318	357
315	6	<b>729 010 123</b>	-	21.000	237	356	401

29 10 01

**Elbow 90°, ABS metric**

- >d225 - maximum operating temperature: +40°C

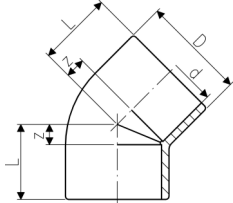


d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	729 100 105	10	0.007	9	21	23
20	16	729 100 106	10	0.010	11	26	27
25	16	729 100 107	10	0.017	14	31	33
32	10	729 100 108	10	0.032	17	40	39
40	10	729 100 109	10	0.051	21	49	47
50	10	729 100 110	5	0.103	26	61	57
63	10	729 100 111	-	0.196	33	76	72
75	10	729 100 112	-	0.308	40	90	84
90	10	729 100 113	-	0.429	46	110	97
110	10	729 100 114	-	1.125	61	136	122
140	10	729 100 116	-	1.470	70	162	146
160	10	729 100 117	-	2.150	80	185	166
200	10	729 100 119	-	3.372	101	225	207
250	6	729 100 121	-	8.200	131	282	263

29 15 01

**Elbow 45°, ABS metric**

- >d225 - maximum operating temperature: +40°C

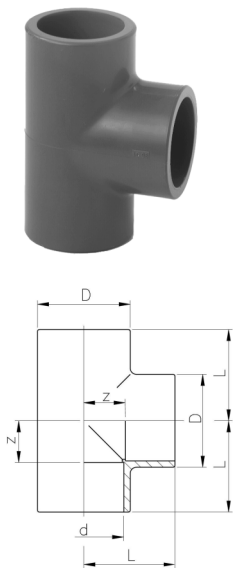


d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20	16	729 150 106	10	0.019	5	25	21
25	16	729 150 107	10	0.029	6	31	25
32	16	729 150 108	10	0.046	8	40	30
40	10	729 150 109	10	0.082	10	49	36
50	10	729 150 110	5	0.121	12	61	43
63	10	729 150 111	-	0.144	14	76	52
75	10	729 150 112	-	0.228	17	89	61
90	10	729 150 113	-	0.362	20	107	71
110	10	729 150 114	-	0.775	28	131	89
140	10	729 150 116	-	1.190	32	162	108
160	10	729 150 117	-	1.680	36	185	122
200	10	729 150 119	-	2.506	43	225	149
225	10	729 150 120	-	3.100	49	250	168
250	6	729 150 121	-	7.200	60	282	192
280	6	729 150 122	-	10.500	66	318	213
315	6	729 150 123	-	14.600	74	356	239

29 20 01

### Tee 90°, ABS metric

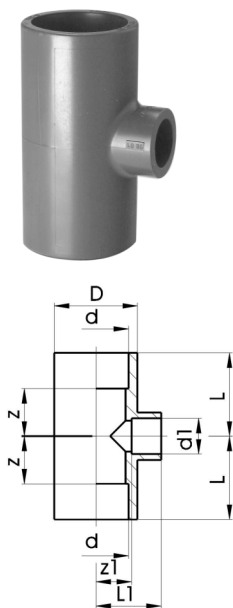
• >d225 - maximum operating temperature: +40°C














d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	<b>729 200 105</b>	10	0.010	9	21	23
20	16	<b>729 200 106</b>	10	0.014	11	25	27
25	16	<b>729 200 107</b>	10	0.024	14	31	33
32	10	<b>729 200 108</b>	10	0.042	17	40	39
40	10	<b>729 200 109</b>	10	0.074	21	49	47
50	10	<b>729 200 110</b>	5	0.131	26	61	57
63	10	<b>729 200 111</b>	-	0.250	34	76	72
75	10	<b>729 200 112</b>	-	0.421	40	90	84
90	10	<b>729 200 113</b>	-	0.687	47	107	98
110	10	<b>729 200 114</b>	-	1.020	55	133	116
140	10	<b>729 200 116</b>	-	2.500	71	169	147
160	10	<b>729 200 117</b>	-	3.700	81	193	167
200	10	<b>729 200 119</b>	-	4.430	101	225	207
225	10	<b>729 200 120</b>	-	6.850	114	256	233
250	6	<b>729 200 121</b>	-	12.400	132	282	263
280	6	<b>729 200 122</b>	-	17.300	152	318	298
315	6	<b>729 200 123</b>	-	24.100	168	356	332

29 20 01

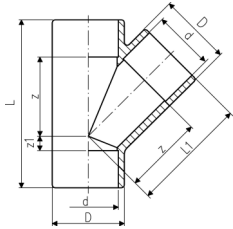
### Tees 90°, reducing, ABS metric



d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	
25	20	16	<b>729 200 134</b>	10	0.029	14	14	33	33	30	
32	25	10	<b>729 200 138</b>	10	0.048	17	17	41	39	36	
40	25	10	<b>729 200 151</b>	10	0.081	23	23	50	49	42	
40	32	10	<b>729 200 147</b>	10	0.085	23	23	50	49	45	
50	25	10	<b>729 200 010</b>	5	0.135	28	28	62	59	47	
50	32	10	<b>729 200 164</b>	5	0.200	28	28	62	59	50	
63	25	10	<b>729 200 011</b>	-	0.245	34	34	77	73	53	
63	32	10	<b>729 200 178</b>	-	0.249	35	34	77	73	56	
63	50	10	<b>729 200 170</b>	-	0.265	35	34	77	73	65	
	75	40	10	<b>729 200 182</b>	-	0.500	40	41	92	84	66
	90	32	10	<b>729 200 143</b>	-	1.000	46	55	110	97	93
	90	63	10	<b>729 200 146</b>	-	0.900	46	55	110	97	93
	110	32	10	<b>729 200 144</b>	-	2.000	56	67	133	117	89
	110	50	10	<b>729 200 136</b>	-	1.900	56	67	133	117	98
	140	50	10	<b>729 200 148</b>	-	1.899	72	82	172	148	113
	140	75	10	<b>729 200 149</b>	-	2.500	72	78	172	148	122
	160	90	10	<b>729 200 158</b>	-	2.800	81	91	192	167	142
	200	110	10	<b>729 200 153</b>	-	6.110	106	131	232	213	192
	225	110	10	<b>729 200 156</b>	-	7.500	119	143	257	239	204
	225	160	10	<b>729 200 157</b>	-	7.900	119	119	257	239	205

29 25 01

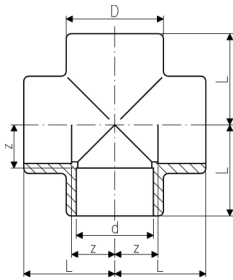
**Tee 45°, ABS metric**



d [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
20	10	<b>729 250 106</b>	10	0.027	30	6	28	68	46
25	10	<b>729 250 107</b>	10	0.043	36	9	33	83	55
32	10	<b>729 250 108</b>	10	0.073	45	10	41	99	67
40	10	<b>729 250 109</b>	-	0.119	56	10	50	118	82
50	10	<b>729 250 110</b>	-	0.202	66	12	60	140	97
63	10	<b>729 250 111</b>	-	0.325	85	14	74	175	123
75	6	<b>729 250 112</b>	-	0.637	101	18	91	207	145
90	6	<b>729 250 113</b>	-	0.940	122	20	107	245	173
110	6	<b>729 250 114</b>	-	1.870	149	27	134	298	210
140	6	<b>729 250 116</b>	-	4.315	190	34	168	376	266

29 30 01

**Crosses, ABS metric**



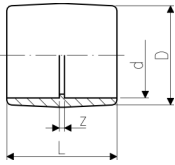
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
32	10	<b>729 300 108</b>	-	0.070	17	43	39
63	10	<b>729 300 111</b>	-	0.361	34	79	72



## 29 91 01

### Socket, ABS metric

- >d225 - maximum operating temperature: +40°C



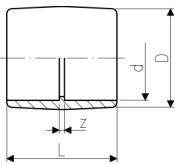
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	
16	16	<b>729 910 105</b>	10	0.005	3	22	31	
20	16	<b>729 910 106</b>	10	0.007	3	26	35	
25	16	<b>729 910 107</b>	10	0.011	3	32	41	
32	10	<b>729 910 108</b>	10	0.020	3	40	47	
40	10	<b>729 910 109</b>	10	0.034	3	49	55	
50	10	<b>729 910 110</b>	10	0.060	3	61	65	
63	10	<b>729 910 111</b>	5	0.107	3	76	79	
75	10	<b>729 910 112</b>	-	0.140	4	87	92	
90	10	<b>729 910 113</b>	-	0.242	5	104	107	
110	10	<b>729 910 114</b>	-	0.570	5	131	132	
140	10	<b>729 910 116</b>	-	0.760	7	162	159	
160	10	<b>729 910 117</b>	-	1.176	8	183	180	
200	10	<b>729 910 119</b>	-	1.480	9	221	221	
225	10	<b>729 910 120</b>	-	2.500	10	253	248	
250	6	<b>729 910 121</b>	-	5.400	16	284	272	
280	6	<b>729 910 122</b>	-	6.600	16	321	302	
315	6	<b>729 910 123</b>	-	8.100	16	356	338	

## 29 91 31

### Adaptor Socket, ABS metric - Inch BS

#### Model:

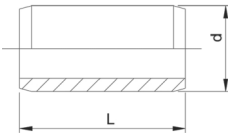
- with BS Inch and metric solvent cement sockets



d [mm]	Inch	PN	Code	SP	kg	z [mm]	L [mm]	D [mm]	
16	3/8	10	<b>729 913 105</b>	-	0.007	5	35	23	
20	1/2	10	<b>729 913 106</b>	-	0.010	5	38	27	
25	3/4	10	<b>729 913 107</b>	-	0.016	5	45	33	
32	1	10	<b>729 913 108</b>	-	0.025	5	51	41	
40	1 1/4	10	<b>729 913 109</b>	-	0.045	5	60	51	
50	1 1/2	10	<b>729 913 110</b>	-	0.070	4	65	59	
63	2	10	<b>729 913 111</b>	-	0.130	5	79	75	
75	2 1/2	10	<b>729 913 112</b>	-		8	93	95	
90	3	10	<b>729 913 113</b>	-	0.365	6	108	104	
110	4	10	<b>729 913 115</b>	-	0.630	7	135	134	

## 29 90 09

## Barrel Nipple, ABS metric



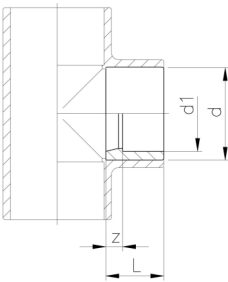
### Model:


- For quick connections between fittings
- For the shortest possible distance between fittings
- Overall length  $L = 2 \times$  socket length

d [mm]	PN	Code	SP	kg	L [mm]
16	16	<b>729 900 905</b>	-	0.003	28
20	16	<b>729 900 906</b>	-	0.004	32
25	16	<b>729 900 907</b>	-	0.007	38
32	10	<b>729 900 908</b>	-	0.009	44
40	10	<b>729 900 909</b>	-	0.017	52
50	10	<b>729 900 910</b>	-	0.032	62
63	10	<b>729 900 911</b>	-	0.063	76
75	10	<b>729 900 912</b>	-	0.102	88
90	10	<b>729 900 913</b>	-	0.173	102
110	10	<b>729 900 914</b>	-	0.309	122

## 29 90 03

## Reducing Bush, ABS metric



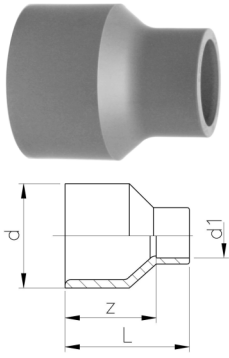
d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
20	16	16	<b>729 900 334</b>	10	0.003	2	16
25	20	16	<b>729 900 337</b>	10	0.005	3	19
32	20	10	<b>729 900 342</b>	10	0.012	6	22
32	25	10	<b>729 900 341</b>	10	0.009	4	22
40	20	10	<b>729 900 348</b>	10	0.016	10	26
40	25	10	<b>729 900 347</b>	10	0.016	7	26
40	32	10	<b>729 900 346</b>	10	0.012	4	26
50	20	10	<b>729 900 355</b>	10	0.024	15	31
50	25	10	<b>729 900 354</b>	10	0.025	12	31
50	32	10	<b>729 900 353</b>	10	0.035	9	31
50	40	10	<b>729 900 352</b>	10	0.038	5	31
63	32	10	<b>729 900 360</b>	10	0.060	16	38
63	40	10	<b>729 900 359</b>	10	0.067	12	38
63	50	10	<b>729 900 358</b>	10	0.044	7	36
75	50	10	<b>729 900 365</b>	10	0.105	13	44
75	63	10	<b>729 900 364</b>	10	0.076	7	44
90	50	10	<b>729 900 372</b>	-	0.136	20	51
90	63	10	<b>729 900 371</b>	-	0.130	14	51
90	75	10	<b>729 900 370</b>	-	0.133	7	51
110	63	10	<b>729 900 378</b>	-	0.238	24	61
110	90	10	<b>729 900 376</b>	-	0.196	10	61
	125	110	-	1	0.250		
140	110	10	<b>729 900 385</b>	-	0.454	15	76
160	110	10	<b>729 900 390</b>	-	0.666	25	86
160	140	10	<b>729 900 388</b>	-	0.416	10	86
200	160	10	<b>729 900 392</b>	-	0.818	20	106
225	160	10	<b>729 900 396</b>	-	1.640	33	119
225	200	10	<b>729 900 181</b>	-	1.440	13	119
250	225	6	<b>729 900 303</b>	-	1.000	12	131
280	250	6	<b>729 900 306</b>	-	2.500	15	146
315	280	6	<b>729 900 312</b>	-	3.350	17	164

## 29 91 03

## Reducing Bushes Long, ABS metric

### Model:

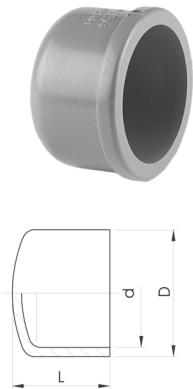
- With spigot and solvent cement socket



d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
32	20	10	<b>729 910 342</b>	-	0.016	30	46
40	25	10	<b>729 910 347</b>	10	0.026	36	55
50	25	10	<b>729 910 354</b>	10	0.041	44	63
63	32	10	<b>729 910 360</b>	5	0.077	54	76
75	40	10	<b>729 910 366</b>	5	0.115	62	88
90	63	10	<b>729 910 371</b>	-	0.218	74	112

## 29 96 01

## Cap, ABS metric



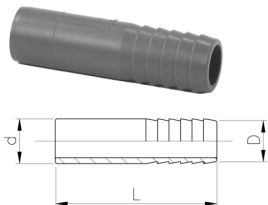
d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
16	16	<b>729 960 105</b>	10	0.006	26	24
20	16	<b>729 960 106</b>	10	0.008	30	25
25	16	<b>729 960 107</b>	10	0.013	37	30
32	10	<b>729 960 108</b>	10	0.020	44	34
40	10	<b>729 960 109</b>	10	0.034	55	41
50	10	<b>729 960 110</b>	10	0.034	64	44
63	10	<b>729 960 111</b>	5	0.086	80	54
75	10	<b>729 960 112</b>	5	0.115	87	65
90	10	<b>729 960 113</b>	-	0.215	112	77
110	10	<b>729 960 114</b>	-	0.480	145	101
140	10	<b>729 960 116</b>	-	0.880	163	114
160	10	<b>729 960 117</b>	-	1.130	188	130

## 29 96 04

## Hose Connectors, ABS metric

### Model:

- With solvent cement spigot metric and parallel hose connection



d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
16	10	<b>729 960 405</b>	10	0.007	16	57
20	10	<b>729 960 406</b>	10	0.011	20	73
25	10	<b>729 960 407</b>	10	0.016	25	79
32	10	<b>729 960 408</b>	10	0.026	30	89

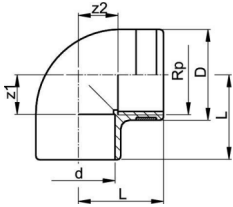
# Adaptor Fittings

29 10 02

## Elbow 90°, ABS metric

### Model:

- With solvent cement socket metric and parallel female thread (Rp)
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



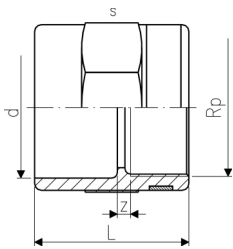
d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]
20	1/2	10	<b>729 100 206</b>	10	0.018	11	14	30	27
25	3/4	10	<b>729 100 207</b>	10	0.028	14	17	35	33
32	1	10	<b>729 100 208</b>	10	0.047	17	22	45	39
40	1 1/4	10	<b>729 100 209</b>	10	0.088	23	27	55	50
50	1 1/2	10	<b>729 100 210</b>	5	0.128	27	36	62	58
63	2	10	<b>729 100 211</b>	5	0.233	33	46	75	73

29 91 02

## Socket, ABS metric

### Model:

- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



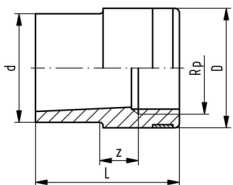
d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
20	1/2	10	<b>729 910 206</b>	10	0.020	4	35	32
25	3/4	10	<b>729 910 207</b>	10	0.030	3	40	36
32	1	10	<b>729 910 208</b>	10	0.040	3	45	46
40	1 1/4	10	<b>729 910 209</b>	10	0.069	5	51	55
50	1 1/2	10	<b>729 910 210</b>	10	0.100	7	59	65
63	2	10	<b>729 910 211</b>	5	0.162	7	69	80

29 91 04

## Reducing Bushes, ABS metric-Rp

### Model:

- With solvent cement spigot metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



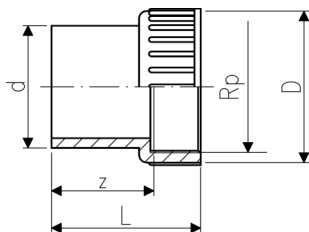
d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	s [mm]
20	3/8	10	<b>729 910 434</b>	10	0.012	24	25	35	15
25	1/2	10	<b>729 910 437</b>	10	0.018	27	30	41	21
32	3/4	10	<b>729 910 441</b>	10	0.027	32	35	48	33
40	1	10	<b>729 910 446</b>	10	0.048	38	45	56	60
50	1 1/4	10	<b>729 910 452</b>	10	0.073	46	55	66	99
63	1 1/2	10	<b>729 910 458</b>	5	0.106	57	62	77	150

29 90 04

## Adaptor, ABS metric - Rp

### Model:

- With solvent cement spigot metric and parallel female thread Rp
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



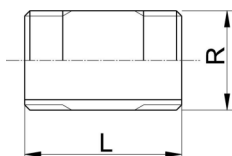
d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	D [mm]
20	3/8	10	729 900 406	10	0.009	21	37	28
25	1/4	10	729 900 407	10	0.014	23	41	33
32	1	10	729 900 408	-	0.026	27	48	42
40	1 1/4	10	729 900 409	10	0.046	33	56	52
50	1 1/2	10	729 900 410	10	0.073	38	61	62
63	2	10	729 900 411	5	0.127	47	74	77

29 91 15

## Barrel Nipple, ABS - R

### Model:

- BSP taper male threads (R)
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



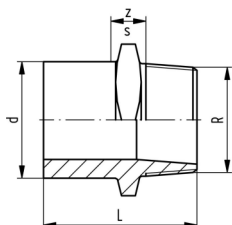
R [inch]	PN	Code	SP	kg	L [mm]
3/8	10	729 911 505	-	0.014	43
1/2	10	729 911 506	-	0.014	50
3/4	10	729 911 507	-	0.021	56
1	10	729 911 508	-	0.035	63
1 1/4	10	729 911 509	-	0.053	75
1 1/2	10	729 911 510	-	0.031	88
2	10	729 911 511	-	0.135	88
3	10	729 911 513	-	0.196	128
4	10	729 911 515	-	0.357	153

29 91 05

## Adaptor Spigot-Nipple, ABS metric - R

### Model:

- With solvent cement spigot metric and taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



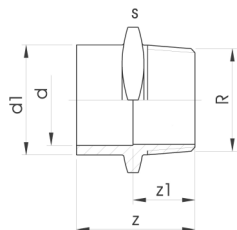
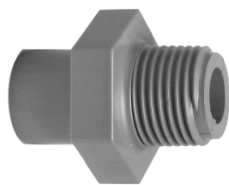
d [mm]	R [inch]	PN	Code	SP	kg	z [mm]	s [mm]
16	3/8	10	729 910 505	10	0.009	35	27

29 91 05

## Adaptor Socket-Nippel, ABS metric - R

### Model:

- With solvent cement spigot/socket metric and taper male thread R
- Connection for plastic threads
- Do not use thread sealing pastes that are harmful to ABS



d [mm]	d1 [mm]	R [inch]	PN	Code	SP	kg	z [mm]	z1 [mm]	s [mm]
16	20	1/2	10	<b>729 910 556</b>	10	0.012	42	28	32
20	25	3/4	10	<b>729 910 557</b>	10	0.020	47	31	36
25	32	1	10	<b>729 910 558</b>	10	0.031	54	35	46
32	40	1 1/4	10	<b>729 910 559</b>	10	0.050	60	38	55
40	50	1 1/2	10	<b>729 910 560</b>	10	0.070	66	40	65
50	63	2	10	<b>729 910 561</b>	5	0.123	78	47	80

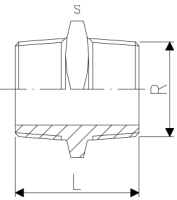
# Threaded Fittings

29 91 19

## Hexagon Nipple, ABS - R

### Model:

- With taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



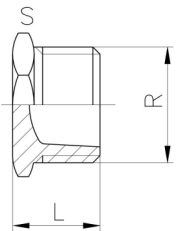
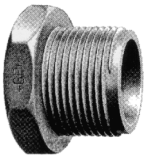
R [inch]	PN	Code	SP	kg	L [mm]	s [mm]
1/2	10	<b>729 911 906</b>	10	0.009	45	22
3/4	10	<b>729 911 907</b>	10	0.014	49	27
1	10	<b>729 911 908</b>	10	0.026	57	36

29 96 19

## Plug, ABS - R

### Model:

- With taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS



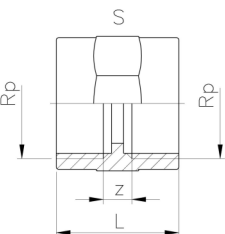
R [inch]	PN	Code	SP	kg	s [mm]	L [mm]
1/2	10	<b>729 961 906</b>	10	0.008	27	25
3/4	9	<b>729 961 907</b>	10	0.014	36	29
1	9	<b>729 961 908</b>	10	0.022	41	32

29 91 06

## Threaded socket, ABS metric - Rp

### Model:

- With parallel female thread Rp
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to ABS
- Install with low mechanical stress and avoid large cyclic temperature changes



Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
1/2	10	<b>729 910 606</b>	10	0.019	9	35	32
3/4	10	<b>729 910 607</b>	10	0.022	9	39	36
1	10	<b>729 910 608</b>	10	0.041	11	45	46

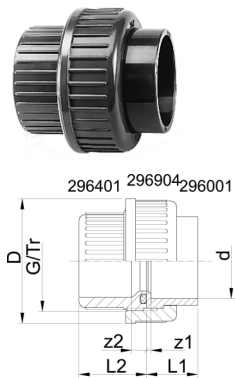
# Unions

29 51 01

## Unions, ABS metric

### Model:

- Union end: Solvent cement socket metric
- Union bush: Solvent cement socket metric
- Gasket: O-ring EPDM No. 48 41 00



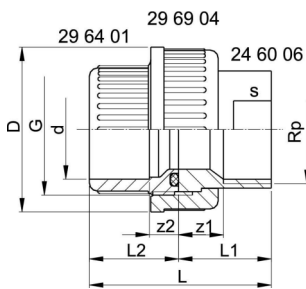
d [mm]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr	
16	10	<b>729 510 105</b>	10	0.025	5	10	35	19	24		3/4
20	10	<b>729 510 106</b>	10	0.035	4	10	43	21	26		1
25	10	<b>729 510 107</b>	10	0.050	5	10	53	24	29		1 1/4
32	10	<b>729 510 108</b>	10	0.070	5	10	60	27	32		1 1/2
40	10	<b>729 510 109</b>	10	0.130	5	12	74	32	38		2
50	10	<b>729 510 110</b>	5	0.170	3	14	83	33	40		2 1/4
63	10	<b>729 510 111</b>	-	0.340	3	18	103	40	46		2 3/4
75	10	<b>729 510 112</b>	-	0.461	3	18	135	47	62		Tr 108x5
90	10	<b>729 510 113</b>	-	0.694	5	18	158	56	69		Tr 128x5
110	10	<b>729 510 114</b>	-	1.069	5	11	158	66	72		Tr 154x5

29 54 02

## Adaptor Unions, ABS / Stainless Steel metric - Rp

### Model:

- Union End: stainless steel WN 1.4404 (316L), parallel female thread Rp
- Union Bush: solvent cement socket ABS metric
- Union Nut: ABS
- Gasket: O-ring EPDM No. 48 41 00



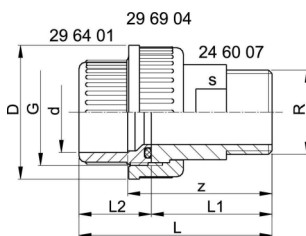
d [mm]	Rp [inch]	PN	EPDM Code	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	3/8	10	<b>729 540 205</b>	0.053	9	10	35	43	19	24	3/4	19
20	1/2	10	<b>729 540 206</b>	0.096	11	10	43	50	24	26	1	24
25	3/4	10	<b>729 540 207</b>	0.154	11	10	51	55	26	29	1 1/4	29
32	1	10	<b>729 540 208</b>	0.212	12	10	58	61	29	32	1 1/2	36
40	1 1/4	10	<b>729 540 209</b>	0.356	14	12	74	71	33	38	2	45
50	1 1/2	10	<b>729 540 210</b>	0.455	15	14	83	79	34	45	2 1/4	54
63	2	10	<b>729 540 211</b>	0.721	15	18	100	95	39	56	2 3/4	63

29 54 07

## Adaptor Unions, ABS/Stainless Steel metric - R

### Model:

- Union End: stainless steel WN 1.4404 (316L), taper male thread R
- Union Bush: solvent cement socket ABS metric
- Union Nut: ABS
- Gasket: O-ring EPDM No. 48 41 00

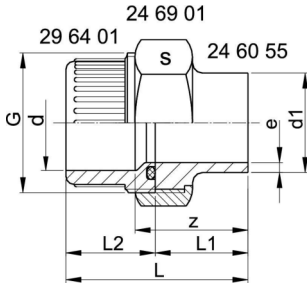
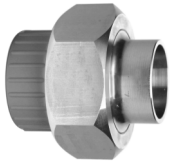


d [mm]	R [inch]	PN	EPDM Code	kg	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	3/8	10	<b>729 540 705</b>	0.073	40	35	54	30	24	3/4	19
20	1/2	10	<b>729 540 706</b>	0.126	44	43	60	34	26	1	24
25	3/4	10	<b>729 540 707</b>	0.174	46	51	65	36	29	1 1/4	32
32	1	10	<b>729 540 708</b>	0.262	50	58	72	40	32	1 1/2	37
40	1 1/4	10	<b>729 540 709</b>	0.476	58	74	84	46	38	2	48
50	1 1/2	10	<b>729 540 710</b>	0.535	62	83	93	48	45	2 1/4	54
63	2	10	<b>729 540 711</b>	0.931	73	100	111	55	56	2 3/4	69



29 54 55

## Adaptor Unions, ABS/Stainless Steel metric - Welding End



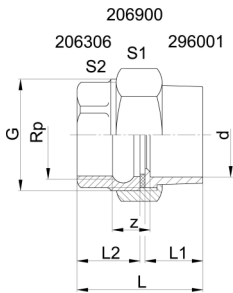
**Model:**

- Union End: stainless steel WN 1.4404 (316L) with welding end
- Union Bush: solvent cement socket ABS metric
- Union Nut: stainless steel WN 1.4404 (316L)
- Gasket: O-ring EPDM No. 48 41 00

d [mm]	d1 [mm]	PN	EPDM Code	kg	z [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	G [inch]	s [mm]
16	17	10	729 545 505	0.101	28	42	18	24	1.6	3/4	32
20	21	10	729 545 506	0.176	32	48	22	26	2.0	1	41
25	27	10	729 545 507	0.204	33	52	23	29	2.0	1 1/4	46
32	34	10	729 545 508	0.313	36	58	26	32	2.0	1 1/2	55
40	42	10	729 545 509	0.493	38	64	26	38	2.0	2	68
50	48	10	729 545 510	0.566	42	73	28	45	2.0	2 1/4	74
63	60	10	729 545 511	0.902	50	88	32	56	2.6	2 3/4	88

29 55 02

## Adapter Union Brass/ABS metric - Rp

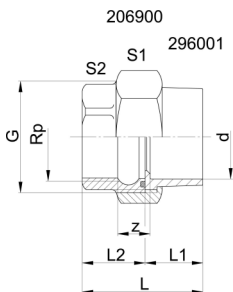


**Model:**

- Union End: ABS, solvent cement socket metric
- Union Bush: Brass BSP parallel female thread (Rp)
- Union Nut: brass
- Gasket: Flat gasket No. 48 40 00 EPDM

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	G [inch]	L1 [mm]	L2 [mm]	S1 [mm]	S2 [mm]
16	3/8	10	729 550 205	1	0.086	12	3/4	19	17	30	27
20	1/2	10	729 550 206	1	0.134	13	1	21	20	38	27
25	3/4	10	729 550 207	1	0.221	14	1 1/4	24	23	47	32
32	1	10	729 550 208	1	0.263	15	1 1/2	27	26	52	38
40	1 1/4	10	729 550 209	1	0.437	15	2	32	28	66	47
50	1 1/2	10	729 550 210	1	0.508	16	2 1/4	33	29	72	53
63	2	10	729 550 211	1	0.774	17	2 3/4	40	34	87	65

## Adapter Union Brass/ABS metric - Rp



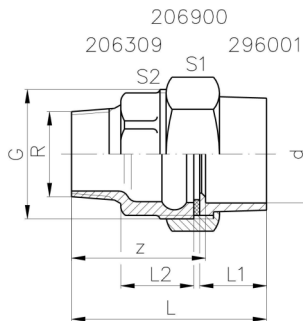
**Model:**

- O-Ring special for Temperature < 0°C
- Union End: ABS, solvent cement socket metric
- Union Bush: Brass BSP parallel female thread (Rp)
- Union Nut: brass
- Gasket: O-Ring No. 48 41 00 EPDM

d [mm]	Rp [inch]	PN	Code	kg	z [mm]	G [inch]	L1 [mm]	L2 [mm]	S1 [mm]	S2 [mm]
16	3/8	10	729 550 255	0.086	10	3/4	19	17	30	27
20	1/2	10	729 550 256	0.134	11	1	21	20	38	27
25	3/4	10	729 550 257	0.221	12	1 1/4	24	23	47	32
32	1	10	729 550 258	0.263	13	1 1/2	27	26	52	38
40	1 1/4	10	729 550 259	0.437	13	2	32	28	66	47
50	1 1/2	10	729 550 260	0.508	14	2 1/4	33	29	72	53
63	2	10	729 550 261	0.774	15	2 3/4	40	34	87	65

**Adapter Union Brass/ABS metric - R****Model:**

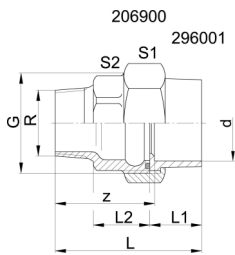
- Union End: ABS, solvent cement socket metric
- Union Bush: Brass, BSP, taper male thread R
- Union Nut: brass
- Gasket: Flat gasket No. 48 40 00 EPDM



d	R	PN	Code	SP	kg	z	G	L1	L2	S1	S2	
[mm]	[inch]					[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	
16	3/8	10	<b>729 550 705</b>	1	0.109	34	3/4	19	29	30	27	
20	1/2	10	<b>729 550 706</b>	1	0.152	38	1	21	32	38	27	
25	3/4	10	<b>729 550 707</b>	1	0.261	55	1 1/4	24	50	47	27	
32	1	10	<b>729 550 708</b>	1	0.330	59	1 1/2	27	54	52	34	
40	1 1/4	10	<b>729 550 709</b>	1	0.437	60	2	32	54	66	43	
50	1 1/2	10	<b>729 550 710</b>	1	0.675	67	2 1/4	33	62	72	50	
63	2	10	<b>729 550 711</b>	1	1.040	75	2 3/4	40	69	87	61	

**Adapter Union Brass/ABS metric - R****Model:**

- with O-ring
- Union End: ABS, solvent cement socket metric
- Union Bush: Brass, BSP, taper male thread R
- Union Nut: brass
- Gasket: O-Ring No. 48 41 00



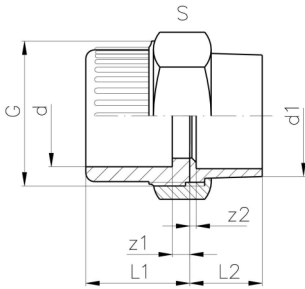
d	R	PN	Code	kg	z	G	L1	L2	S1	S2	
[mm]	[inch]				[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	
16	3/8	10	<b>729 550 755</b>	0.109	32	3/4	19	29	30	27	
20	1/2	10	<b>729 550 756</b>	0.152	36	1	21	32	38	27	
25	3/4	10	<b>729 550 757</b>	0.261	53	1 1/4	24	50	47	27	
32	1	10	<b>729 550 758</b>	0.330	57	1 1/2	27	54	52	34	
40	1 1/4	10	<b>729 550 759</b>	0.437	58	2	32	54	66	43	
50	1 1/2	10	<b>729 550 760</b>	0.675	65	2 1/4	33	62	72	50	
63	2	10	<b>729 550 761</b>	1.040	73	2 3/4	40	69	87	61	

20 51 01

## Adaptor Union, Copper for soldering, ABS

**Model:**

- Union End: Copper
- Union Bush: solvent cement socket ABS metric
- Union Nut: brass
- Gasket: O-ring EPDM No. 48 41 00



d [mm]	d1 [mm]	PN	Code	kg	L1 [mm]	L2 [mm]	z1 [mm]	z2 [mm]	G [inch]	s [mm]
16	18	10	<b>720 510 105</b>	0.079	25	17	11	4	3/4	32
20	22	10	<b>720 510 106</b>	0.140	26	19	9	3	1	40
25	28	10	<b>720 510 107</b>	0.269	29	28	9	6	1 1/4	50
32	35	10	<b>720 510 108</b>	0.198	32	27	10	5	1 1/2	52
40	42	10	<b>720 510 109</b>	0.350	38	35	12	6	2	66
50	54	10	<b>720 510 110</b>	0.438	40	46	14	3	2 1/4	72

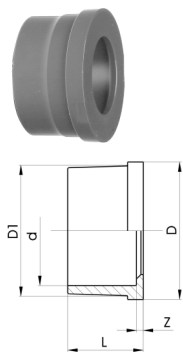
# Union Spare Parts

29 60 01

## Union End, ABS metric

### Model:

- Solvent cement socket metric
- For adaptor unions 29 53 02, 29 53 07, 29 55 02, 29 55 07
- For union 29 51 01



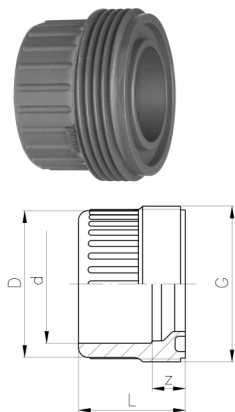
d [mm]	PN	Code	SP	kg	z [mm]	L [mm]	D [mm]	D1 [mm]
16	10	<b>729 600 105</b>	-	0.004	5	19	24	22
20	10	<b>729 600 106</b>	-	0.007	4	21	30	28
25	10	<b>729 600 107</b>	-	0.012	5	24	39	36
32	10	<b>729 600 108</b>	-	0.016	5	27	44	41
40	10	<b>729 600 109</b>	-	0.042	3	31	57	53
50	10	<b>729 600 110</b>	-	0.045	3	34	63	59
63	10	<b>729 600 111</b>	-	0.084	3	41	78	74
75	10	<b>729 600 162</b>	-	0.109	3	47	101	91
90	10	<b>729 600 163</b>	-	0.178	5	56	121	108
110	10	<b>729 600 164</b>	-	0.295	5	66	146	131

29 64 01

## Union Bush, ABS metric

### Model:

- Solvent cement socket metric
- For adaptor unions 29 53 02, 29 53 07, 29 55 02, 29 55 07
- For union 29 51 01
- Jointing Face: with O-Ring groove



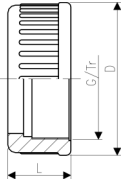
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	G/Tr
16	10	<b>729 640 105</b>	-	0.008	10	24	24	3/4
20	10	<b>729 640 106</b>	-	0.011	10	28	26	1
25	10	<b>729 640 107</b>	-	0.016	10	33	29	1 1/4
32	10	<b>729 640 108</b>	-	0.023	10	41	32	1 1/2
40	10	<b>729 640 109</b>	-	0.039	12	50	38	2
50	10	<b>729 640 110</b>	-	0.040	14	62	40	2 1/4
63	10	<b>729 640 111</b>	-	0.100	18	77	56	2 3/4
75	10	<b>729 640 112</b>	-	0.160	18	93	62	Tr108x5
90	10	<b>729 640 113</b>	-	0.238	18	110	69	Tr128x5
110	10	<b>729 640 114</b>	-	0.330	11	133	72	Tr154x6

29 69 04

## Union Nut, ABS

### Model:

- For union 23 51 01
- For adaptor unions 29 54 02, 29 54 07



d [mm]	PN	Code	SP	kg	D [mm]	L [mm]	G/Tr
16	10	<b>729 690 405</b>	-	0.009	35	21	3/4
20	10	<b>729 690 406</b>	-	0.014	43	23	1
25	10	<b>729 690 407</b>	-	0.018	53	25	1 1/4
32	10	<b>729 690 408</b>	-	0.024	60	27	1 1/2
40	10	<b>729 690 409</b>	-	0.049	74	30	2
50	10	<b>729 690 410</b>	-	0.070	83	34	2 1/4
63	10	<b>729 690 411</b>	-	0.101	103	38	2 3/4
75	10	<b>729 690 012</b>	-	0.188	135	40	Tr108x5
90	10	<b>729 690 013</b>	-	0.267	158	43	Tr128x5
110	10	<b>729 690 014</b>	-	0.423	188	48	Tr154x6

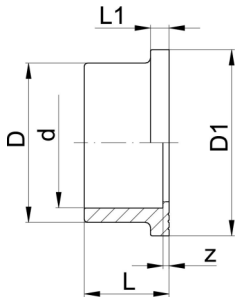
# Flange Adaptor

29 79 01

## Flange Adaptor, ABS metric

### Model:

- Jointing faces serrated
  - Counter part: Same flange adaptor or 29 79 11
  - Gasket: Order separately: Flat gasket 48 40 01 EPDM or 49 40 01 FPM
  - Flat gasket 48 40 01 EPDM or 49 40 01 FPM
  - Backing flange: Order separately
- >d225 - maximum operating temperature: +40°C



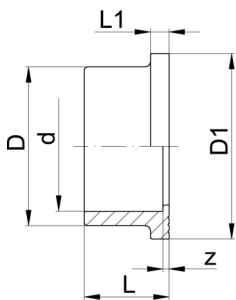
d [mm]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
20	15	10	<b>729 790 106</b>	10	0.008	3	27	34	21	6
25	20	10	<b>729 790 107</b>	10	0.012	3	33	41	24	7
32	25	10	<b>729 790 108</b>	-	0.019	3	41	50	27	7
40	32	10	<b>729 790 109</b>	10	0.058	3	50	61	30	8
50	40	10	<b>729 790 110</b>	10	0.058	3	61	73	34	8
63	50	10	<b>729 790 111</b>	10	0.074	3	76	90	41	9
75	65	10	<b>729 790 112</b>	-	0.118	3	91	106	47	10
90	80	10	<b>729 790 113</b>	-	0.187	5	108	125	56	11
110	100	10	<b>729 790 114</b>	-	0.300	5	131	150	66	12
140	125	10	<b>729 790 116</b>	-	0.567	5	165	188	81	14
160	150	10	<b>729 790 117</b>	-	0.800	5	188	213	91	16
200	200	10	<b>729 790 119</b>	-	1.120	6	224	250	112	24
225	200	10	<b>729 790 120</b>	-	1.300	6	248	274	125	25
250	250	6	<b>729 790 121</b>	-	1.000	9	274	303	140	23
280	250	6	<b>729 790 122</b>	-	2.161	5	307	329	151	23
315	300	6	<b>729 790 123</b>	-	3.321	8	346	379	172	27

29 79 11

## Flange Adaptors BS, Solvent Socket, ABS inch

### Model:

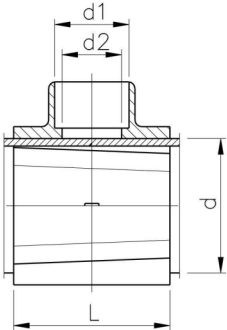
- Jointing faces serrated
- Counterpart: Same flange adaptor or 29 79 01
- Gasket: Order separately: Flat gasket 48 40 01 EPDM or 49 40 01 FPM
- Backing flange: Order separately



PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
10	<b>729 791 106</b>	-	0.007	3	27	34	21	6
10	<b>729 791 107</b>	-	0.011	3	33	41	24	7
10	<b>729 791 108</b>	-	0.017	3	41	50	27	7
10	<b>729 791 109</b>	-	0.027	3	50	61	32	8
10	<b>729 791 110</b>	10	0.048	3	61	73	33	8
10	<b>729 791 111</b>	5	0.078	3	77	91	40	9
10	<b>729 791 113</b>	-	0.187	5	108	125	56	11
10	<b>729 791 115</b>	-	0.309	5	136	155	69	12
10	<b>729 791 117</b>	-	0.963	5	198	217	96	16

# Branch Saddles

## Branch Saddles ABS



### Model:

- For ABS-pipes
- Top saddle (ABS) for solvent cementing
- Bottom part and wedges made from PVC-U
- Outlet with solvent cement socket metric
- PN 10

d [mm]	Code	SP	kg	d1 [mm]	d2 [mm]	Tapping-Ø [mm]	L [mm]
90	<b>169 110 056</b>	1	0.786	50	40	39	105
110	<b>169 110 066</b>	-	0.864	50	40	39	105
160	<b>169 110 097</b>	1	1.185	63	49	48	120
225	<b>169 110 117</b>	-	1.483	63	49	48	120

# Solvent Cement and Tools

## TANGIT ABS Solvent Cement



- 0,75 l can

Code	kg
799 298 022	0.650



## Tangit Cleaner

Model:

- For PVC-U, PVC-C, ABS
- 1 litre tin

Code	kg
799 298 010	0.900



## Cap for cement

- Cap prevents the evaporation of the solvent whilst using the Tangit cement

Code	kg
799 298 028	0.030



## Round Brushes

d-d [mm]		Code	kg
6 - 10	4 mm (for Fittings 6-10mm)	799 299 001	0.005
12 - 32	8 mm (for Fittings 12-32mm)	799 299 002	0.009



## Flat Brushes

d-d [mm]		Code	kg
40 - 63	25x3 mm (for Fittings 40-63mm)	799 299 003	0.015
75 - 225	50x5 mm (for Fittings 75-225mm)	799 299 004	0.026
250 - 400	75x6 mm (for Fittings 250-400mm)	799 299 005	0.045



## Chamfering Tool

Size	d-d [mm]	Code	kg
1	16 - 75	799 495 145	0.720
2	32 - 200	799 495 146	0.992





## PPC Plastic pipe cutter

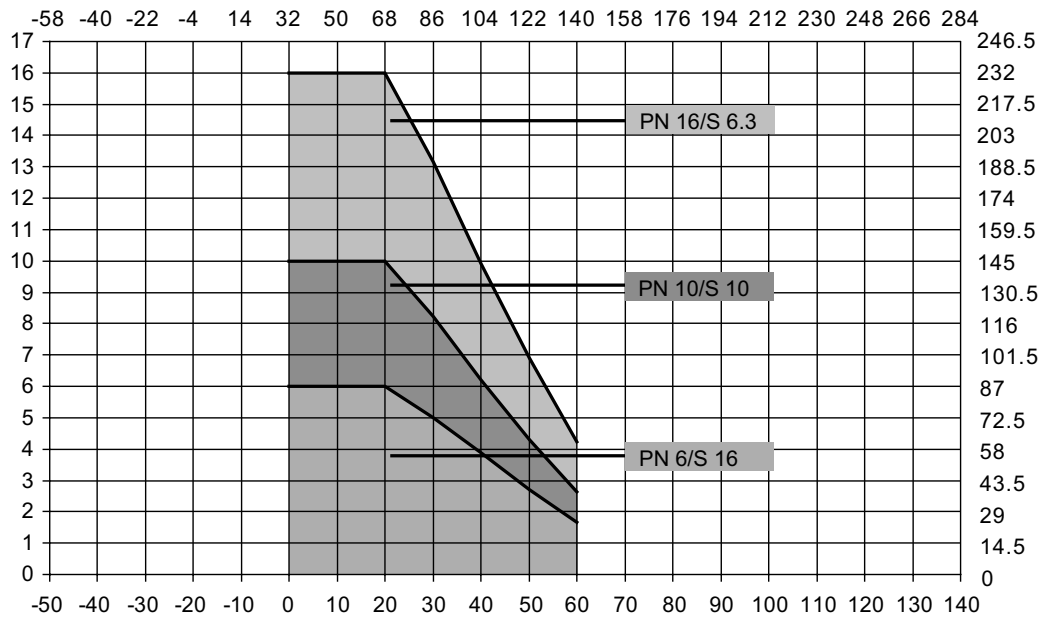
- For cutting plastic pipes d10 - d160

d-d [mm]	Article	Code	SP	kg	
10 - 63	PPC 63, s max. = 7,2mm	<b>790 109 001</b>	-	0.710	
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	-	1.400	
110 - 160	PPC 160, s max. = 19,0mm	<b>790 109 003</b>	-	1.880	

# The Resistant PVC-U Piping System

## Pressure-Temperature Parameters for Pipe and Fittings in PVC-U

25 year life span with built in safety factor C








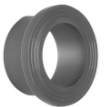

### Post Chlorinated Polyvinylchloride (PVC-U)

PVC-U has due to its high chlorine content an excellent chemical- and temperature resistance (up to +60 °C ). PVC-U is therefore an ideal raw material for aggressive and or corrosive environments in industry.

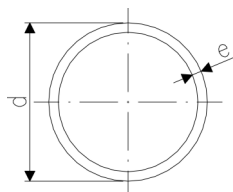
### Complete PVC-U System

George Fischer has a wide range of PVC-U fittings, pipe, hand operated- and automatic valves, as well as measuring- and control systems. Dimensions in ISO/DIN from d 6 to d 400.

# PVC-U metric

		Page
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# Pipes

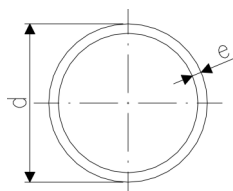


## Pipes PVC-U, grey Series S 10, SDR 21, nominal pressure PN 10

### Model:

- Material: PVC-U, Polyvinylchloride unplasticized DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends

d [mm]	PN	Code	kg/m	e [mm]
25	10	<b>161 017 082</b>	0.174	1.5
32	10	<b>161 017 083</b>	0.264	1.8
40	10	<b>161 017 084</b>	0.350	1.9
50	10	<b>161 017 085</b>	0.552	2.4
63	10	<b>161 017 086</b>	0.854	3.0
75	10	<b>161 017 087</b>	1.220	3.6
90	10	<b>161 017 088</b>	1.750	4.3
110	10	<b>161 017 089</b>	2.610	5.3
125	10	<b>161 017 090</b>	3.340	6.0
140	10	<b>161 017 091</b>	4.180	6.7
160	10	<b>161 017 092</b>	5.470	7.7
180	10	<b>161 017 093</b>	6.880	8.6
200	10	<b>161 017 094</b>	8.510	9.6
225	10	<b>161 017 095</b>	10.800	10.8
250	10	<b>161 017 096</b>	13.200	11.9
280	10	<b>161 017 097</b>	16.000	13.4
315	10	<b>161 017 098</b>	20.900	15.0



## Pipes PVC-U, grey Series S 4, SDR 9, nominal pressure PN 25

### Model:

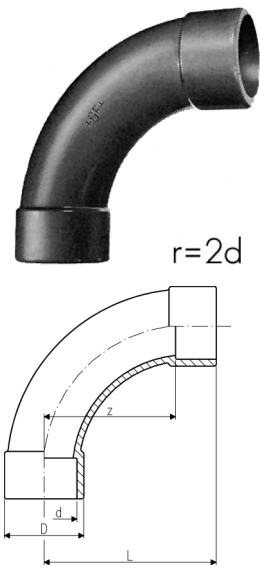
- Material: PVC-U, Polyvinylchloride unplasticized DIN 8061
- Colour: RAL 7011 - dark-grey
- Dimension: DIN EN ISO 15493, DIN 8062
- Pipe length: 5m, with plain ends
- Increased wall thickness for industrial use

d [mm]	PN	Code	kg/m	e [mm]
6	25	<b>161 017 126</b>	0.025	1.0
8	25	<b>161 017 127</b>	0.035	1.0
10	25	<b>161 017 128</b>	0.053	1.2
12	25	<b>161 017 129</b>	0.073	1.4
16	25	<b>161 017 130</b>	0.123	1.8
20	25	<b>161 017 131</b>	0.196	2.3
25	25	<b>161 017 132</b>	0.294	2.8
32	25	<b>161 017 133</b>	0.482	3.6
40	25	<b>161 017 134</b>	0.750	4.5
50	25	<b>161 017 135</b>	1.160	5.6
63	25	<b>161 017 136</b>	1.820	7.0
75	25	<b>161 017 137</b>	2.600	8.4
90	25	<b>161 017 138</b>	3.700	10.0
110	25	<b>161 017 139</b>	5.560	12.3

# Pipe Fittings for solvent cement jointing

21 00 01

## Bends 90°, PVC-U metric



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20	16	<b>721 000 106</b>	10	0.028	40	27	56
25	16	<b>721 000 107</b>	10	0.049	50	33	69
32	16	<b>721 000 108</b>	10	0.067	64	38	86
40	16	<b>721 000 109</b>	-	0.154	80	47	106
50	16	<b>721 000 110</b>	-	0.277	100	61	131
63	16	<b>721 000 111</b>	-	0.515	126	76	164
75	16	<b>721 000 112</b>	-	0.786	150	90	194
90	16	<b>721 000 113</b>	-	1.334	180	108	231
110	16	<b>721 000 114</b>	-	2.960	220	137	281
140	16	<b>721 000 116</b>	-	5.100	280	168	356
160	16	<b>721 000 117</b>	-	7.300	320	192	406

21 01 01

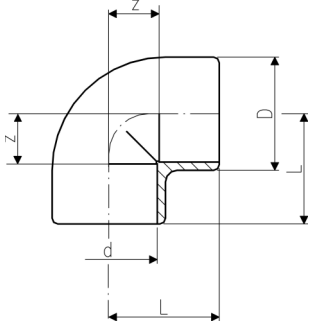
## Bends 90° short pattern, PVC-U metric



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
225	10	<b>721 010 120</b>	-	7.400	168	256	287
280	10	<b>721 010 122</b>	-	16.100	210	318	357
315	10	<b>721 010 123</b>	-	21.200	237	356	402
400	6	<b>721 010 125</b>	-	37.000	300	442	521

21 10 01

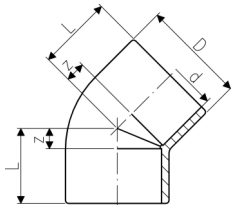
## Elbows 90°, PVC-U metric



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
6	16	721 100 101	10	0.004	4	11	16
8	16	721 100 102	10	0.004	5	13	17
10	16	721 100 103	10	0.004	6	14	18
12	16	721 100 104	10	0.006	7	17	19
16	16	721 100 105	10	0.009	9	21	23
20	16	721 100 106	10	0.013	11	25	27
25	16	721 100 107	10	0.025	14	32	33
32	16	721 100 108	10	0.041	17	40	39
40	16	721 100 109	10	0.061	23	47	49
50	16	721 100 110	10	0.105	26	59	57
63	16	721 100 111	-	0.204	33	73	71
75	16	721 100 112	-	0.329	40	87	83
90	16	721 100 113	-	0.573	46	105	97
110	16	721 100 114	-	1.215	55	128	116
125	16	721 100 115	-	1.460	63	146	131
140	16	721 100 116	-	2.340	70	162	146
160	16	721 100 117	-	3.475	80	185	166
200	10	721 100 119	-	4.700	101	225	207
225	10	721 100 120	-	6.950	114	252	233
250	10	721 100 121	-	9.500	131	282	263

21 15 01

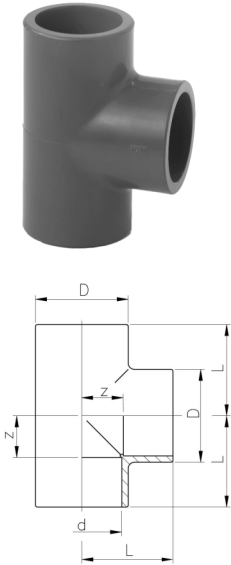
## Elbows 45°, PVC-U metric



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	721 150 105	10	0.008	5	21	19
20	16	721 150 106	10	0.011	5	25	21
25	16	721 150 107	10	0.018	6	31	25
32	16	721 150 108	10	0.029	8	38	30
40	16	721 150 109	10	0.049	10	47	36
50	16	721 150 110	5	0.089	12	59	43
63	16	721 150 111	5	0.161	14	73	52
75	16	721 150 112	-	0.250	17	87	61
90	16	721 150 113	-	0.431	20	105	71
110	16	721 150 114	-	0.733	25	127	86
125	16	721 150 115	-	1.162	28	146	97
140	16	721 150 116	-	1.639	32	162	108
160	16	721 150 117	-	2.520	36	185	122
200	10	721 150 119	-	3.300	43	225	149
225	10	721 150 120	-	4.900	49	250	168
250	10	721 150 121	-	7.150	60	282	192
280	10	721 150 122	-	10.800	66	318	213
315	10	721 150 123	-	14.900	74	356	239
400	6	721 150 125	-	24.000	94	442	302

21 20 01

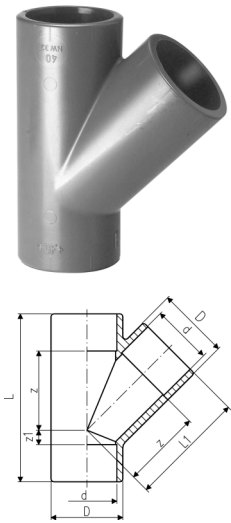
**Tees 90° equal, PVC-U metric**



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	
6	16	721 200 101	10	0.004	4	11	16	
8	16	721 200 102	10	0.008	5	13	17	
10	16	721 200 103	10	0.008	6	16	18	
12	16	721 200 104	10	0.016	7	19	19	
16	16	721 200 105	10	0.012	9	21	23	
20	16	721 200 106	10	0.017	11	25	27	
25	16	721 200 107	10	0.029	14	31	33	
32	16	721 200 108	10	0.055	17	38	39	
40	16	721 200 109	10	0.100	23	48	49	
50	16	721 200 110	-	0.153	26	58	57	
63	16	721 200 111	-	0.334	33	73	71	
75	16	721 200 112	-	0.473	39	87	83	
90	16	721 200 113	-	0.822	46	105	97	
110	16	721 200 114	-	1.392	55	127	116	
125	16	721 200 115	-	2.400	66	151	135	
140	16	721 200 116	-	3.333	71	169	147	
160	16	721 200 117	-	4.963	81	193	167	
200	10	721 200 119	-	5.763	101	225	207	
225	10	721 200 120	-	9.067	114	256	233	
250	10	721 200 121	-	12.500	132	282	263	
280	10	721 200 122	-	17.480	152	318	298	
315	10	721 200 123	-	24.350	168	356	332	
400	6	721 200 125	-	39.500	214	442	420	

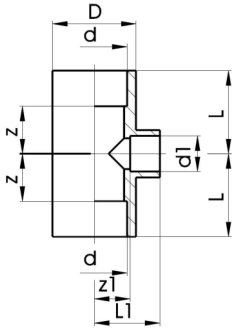
21 25 01

**Tees 45°, PVC-U metric**



d [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
10	10	721 250 103	-	0.013	18	4	16	46	30
12	10	721 250 104	-	0.014	21	4	18	49	33
16	10	721 250 105	-	0.023	25	5	23	58	39
20	10	721 250 106	10	0.037	30	6	28	68	46
25	10	721 250 107	10	0.057	36	9	33	83	55
32	10	721 250 108	10	0.096	45	10	41	99	67
40	10	721 250 109	-	0.157	56	10	50	118	82
50	10	721 250 110	-	0.266	66	12	60	140	97
63	10	721 250 111	-	0.435	85	14	74	175	123
75	6	721 250 112	-	0.810	101	18	91	207	145
90	6	721 250 113	-	1.290	122	20	107	245	173
110	6	721 250 114	-	2.540	149	27	134	298	210
125	6	721 250 115	-	3.605	167	30	147	335	236
140	6	721 250 116	-	3.800	190	34	168	376	266
160	6	721 250 117	-	6.600	213	41	190	428	300
200	6	721 250 119	-	11.650	265	48	232	527	372
225	6	721 250 120	-	15.800	296	54	260	590	416
250	6	721 250 121	-	20.350	330	60	286	654	462

## Tees 90° reducing, PVC-U metric

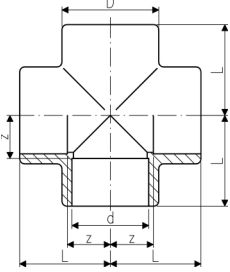


d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]
25	20	16	<b>721 200 134</b>	10	0.055	14	14	33	33	30
32	20	16	<b>721 200 141</b>	10	0.089	17	17	41	39	33
32	25	16	<b>721 200 138</b>	10	0.092	17	17	41	39	36
40	20	16	<b>721 200 155</b>	10	0.105	23	23	50	49	39
40	25	16	<b>721 200 151</b>	10	0.107	23	23	50	49	42
40	32	16	<b>721 200 147</b>	10	0.161	23	23	50	49	45
50	20	16	<b>721 200 009</b>	5	0.180	28	28	62	59	44
50	25	16	<b>721 200 010</b>	5	0.184	28	28	62	59	47
50	32	16	<b>721 200 164</b>	5	0.189	28	28	62	59	50
50	40	16	<b>721 200 161</b>	5	0.198	28	28	62	59	54
63	25	16	<b>721 200 011</b>	-	0.330	35	34	77	73	53
63	32	16	<b>721 200 178</b>	-	0.335	35	34	77	73	56
63	40	16	<b>721 200 174</b>	-	0.340	35	34	77	73	60
63	50	16	<b>721 200 170</b>	-	0.360	35	34	77	73	65
75	32	16	<b>721 200 181</b>	-	0.520	40	41	92	84	63
75	40	16	<b>721 200 182</b>	-	0.515	40	41	92	84	67
75	50	16	<b>721 200 183</b>	-	0.510	40	41	92	84	72
75	63	16	<b>721 200 184</b>	-	0.560	40	41	92	84	79
90	32	16	<b>721 200 142</b>	-	0.830	46	55	110	97	77
90	50	16	<b>721 200 144</b>	-	0.860	46	55	110	97	86
90	63	16	<b>721 200 145</b>	-	0.890	46	55	110	97	93
90	75	16	<b>721 200 146</b>	-	0.950	46	55	110	97	99
110	32	16	<b>721 200 135</b>	-	1.400	56	67	133	117	89
110	50	16	<b>721 200 136</b>	-	1.425	56	67	133	117	98
110	63	16	<b>721 200 132</b>	-	1.490	56	65	133	117	103
110	75	16	<b>721 200 133</b>	-	1.520	56	65	133	117	109
110	90	16	<b>721 200 137</b>	-	1.500	56	65	133	117	116
125	50	16	<b>721 200 139</b>	-	1.970	64	75	151	133	106
125	90	16	<b>721 200 140</b>	-	2.200	64	75	151	133	126
140	50	16	<b>721 200 148</b>	-	3.000	72	82	172	148	113
140	75	16	<b>721 200 149</b>	-	3.000	72	78	172	148	122
140	110	16	<b>721 200 150</b>	-	3.200	72	74	172	148	135
160	110	16	<b>721 200 152</b>	-	4.100	81	81	192	167	142
200	110	10	<b>721 200 153</b>	-	7.450	107	131	232	213	192
200	160	10	<b>721 200 154</b>	-	8.230	107	106	232	213	192
225	110	10	<b>721 200 156</b>	-	9.200	120	143	257	239	204
225	160	10	<b>721 200 157</b>	-	10.000	120	119	257	239	205
250	160	10	<b>721 200 159</b>	-	11.500	132	151	282	263	237
250	200	10	<b>721 200 162</b>	-	12.300	132	131	282	263	237
280	160	10	<b>721 200 165</b>	-	18.200	120	180	318	266	266
280	225	10	<b>721 200 167</b>	-	16.200	120	148	318	266	268
315	160	10	<b>721 200 169</b>	-	22.300	120	197	356	284	283
315	225	10	<b>721 200 172</b>	-	20.300	120	165	356	284	284
400	225	6	<b>721 200 176</b>	-	36.500	163	258	442	369	377
400	315	6	<b>721 200 180</b>	-	32.000	163	213	442	369	377



21 30 01

## Crosses, PVC-U metric



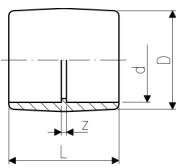
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	
10	16	<b>721 300 103</b>	-	0.009	7	16	19	
12	16	<b>721 300 104</b>	-	0.011	8	18	20	
16	16	<b>721 300 105</b>	-	0.020	10	23	24	
20	16	<b>721 300 106</b>	10	0.037	11	29	27	
25	16	<b>721 300 107</b>	10	0.058	14	35	33	
32	16	<b>721 300 108</b>	10	0.092	17	43	39	
40	16	<b>721 300 109</b>	5	0.155	23	52	49	
50	16	<b>721 300 110</b>	5	0.265	28	63	59	
63	16	<b>721 300 111</b>	-	0.480	34	79	72	
75	10	<b>721 300 112</b>	-	0.660	40	92	83	
90	10	<b>721 300 113</b>	-	0.960	48	106	97	
110	10	<b>721 300 114</b>	-	1.600	58	128	117	

21 91 01

## Sockets equal, PVC-U metric

### Note:

- \* Socket d355 and d400 made from pipe



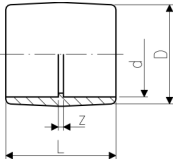
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	
6	16	<b>721 910 101</b>	10	0.004	3	12	27	
8	16	<b>721 910 102</b>	10	0.005	3	14	27	
10	16	<b>721 910 103</b>	10	0.005	3	16	27	
12	16	<b>721 910 104</b>	-	0.006	3	19	27	
16	16	<b>721 910 105</b>	10	0.007	3	22	31	
20	16	<b>721 910 106</b>	10	0.011	3	26	35	
25	16	<b>721 910 107</b>	10	0.015	3	32	41	
32	16	<b>721 910 108</b>	10	0.026	3	39	47	
40	16	<b>721 910 109</b>	10	0.046	3	48	55	
50	16	<b>721 910 110</b>	10	0.065	3	58	65	
63	16	<b>721 910 111</b>	10	0.119	3	73	79	
75	16	<b>721 910 112</b>	-	0.191	4	87	92	
90	16	<b>721 910 113</b>	-	0.328	5	105	107	
110	16	<b>721 910 114</b>	-	0.560	6	128	128	
125	16	<b>721 910 115</b>	-	0.740	7	142	145	
140	16	<b>721 910 116</b>	-	1.200	7	162	159	
160	16	<b>721 910 117</b>	-	1.542	8	183	180	
200	10	<b>721 910 119</b>	-	2.031	9	221	221	
225	10	<b>721 910 120</b>	-	3.790	10	253	248	
250	10	<b>721 910 121</b>	-	5.600	16	284	284	
280	10	<b>721 910 122</b>	-	6.680	16	321	314	
315	10	<b>721 910 123</b>	-	8.300	16	356	348	
*355	6	<b>721 910 124</b>	-	8.000	68	377	454	
*400	6	<b>721 910 125</b>	-	8.300	73	425	505	

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## Adaptor Socket, PVC-U metric - (inch BS)

### Model:

- With solvent cement socket metric and inch (BS)



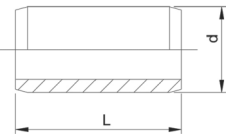
d [mm]	Inch	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	3/8	16	<b>721 913 105</b>	10	0.010	5	23	35
20	1/2	16	<b>721 913 106</b>	10	0.013	5	27	38
25	3/4	16	<b>721 913 107</b>	10	0.020	5	33	45
32	1	16	<b>721 913 108</b>	10	0.031	5	41	51
40	1 1/4	16	<b>721 913 109</b>	10	0.054	5	51	60
50	1 1/2	16	<b>721 913 110</b>	10	0.076	4	59	65
63	2	16	<b>721 913 111</b>	5	0.154	5	75	79
90	3	16	<b>721 913 113</b>	-	0.340	6	104	108
110	4	16	<b>721 913 115</b>	-	0.485	4	128	128

21 90 09

## Barrel Nipples, PVC-U metric

### Model:

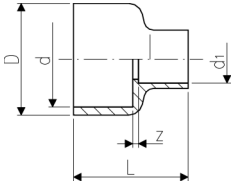
- With solvent cement spigots on both sides
- For the shortest possible distance between fittings
- Overall length L = 2 x socket length



d [mm]	PN	Code	SP	kg	L [mm]
16	16	<b>721 900 905</b>	-	0.002	28
20	16	<b>721 900 906</b>	-	0.004	32
25	16	<b>721 900 907</b>	-	0.008	38
32	16	<b>721 900 908</b>	-	0.015	44
40	16	<b>721 900 909</b>	-	0.027	52
50	16	<b>721 900 910</b>	-	0.050	62
63	16	<b>721 900 911</b>	-	0.098	76
75	16	<b>721 900 912</b>	-	0.160	88
90	16	<b>721 900 913</b>	-	0.266	102
110	16	<b>721 900 914</b>	-	0.476	122
125	16	<b>721 900 915</b>	-	0.691	138
140	16	<b>721 900 916</b>	-	0.953	152
160	16	<b>721 900 917</b>	-	1.569	192
200	10	<b>721 900 919</b>	-	1.804	212
225	10	<b>721 900 920</b>	-	2.570	238

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## Reducing Sockets, PVC-U metric



**Model:**

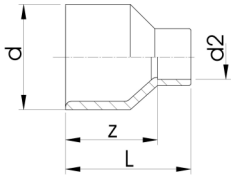
- Solvent cement socket metric

**To be discontinued, replacement 21 91 09  
Delivery while stocks last**

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
25	20	16	<b>721 910 137</b>	10	0.014	3	32	38
40	32	16	<b>721 910 146</b>	10	0.037	3	49	51
50	40	16	<b>721 910 152</b>	10	0.061	8	59	65

21 91 03

## Reducing Bushes, PVC-U metric



**Model:**

- With spigot and solvent cement socket

d [mm]	d2 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
8	6	16	<b>721 910 323</b>	10	0.003	15	27
10	6	16	<b>721 910 326</b>	10	0.003	15	27
10	8	16	<b>721 910 325</b>	10	0.003	15	27
20	16	16	<b>721 910 334</b>	10	0.010	21	35
25	20	16	<b>721 910 337</b>	10	0.015	25	41
32	25	16	<b>721 910 341</b>	10	0.025	30	49
40	32	16	<b>721 910 346</b>	10	0.044	36	58
50	40	16	<b>721 910 352</b>	10	0.075	44	70
63	50	16	<b>721 910 358</b>	5	0.146	54	85
75	63	16	<b>721 910 364</b>	5	0.220	62	100
90	75	16	<b>721 910 370</b>	-	0.335	74	118
140	110	16	<b>721 910 385</b>	-	0.823	111	172

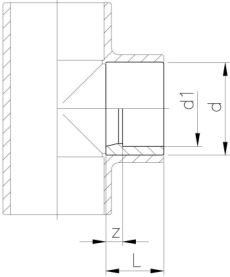
## Reducing Bushes short, PVC-U metric

**Model:**

- With spigot and solvent cement socket



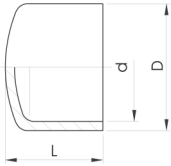
\*



d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
*12	8	16	<b>721 900 329</b>	10	0.002	2	14
*16	12	16	<b>721 900 331</b>	10	0.002	2	14
*20	16	16	<b>721 900 334</b>	10	0.003	2	16
*25	20	16	<b>721 900 337</b>	10	0.005	3	19
*32	20	16	<b>721 900 342</b>	10	0.014	6	22
*32	25	16	<b>721 900 341</b>	10	0.009	3	22
40	20	16	<b>721 900 348</b>	10	0.021	10	26
40	25	16	<b>721 900 347</b>	10	0.021	7	26
*40	32	16	<b>721 900 346</b>	10	0.016	4	26
50	20	16	<b>721 900 355</b>	10	0.033	15	31
50	25	16	<b>721 900 354</b>	10	0.034	12	31
50	32	16	<b>721 900 353</b>	10	0.037	9	31
*50	40	16	<b>721 900 352</b>	-	0.030	5	31
63	32	16	<b>721 900 360</b>	10	0.061	16	38
63	40	16	<b>721 900 359</b>	10	0.068	12	38
*63	50	16	<b>721 900 358</b>	10	0.058	7	38
75	50	16	<b>721 900 365</b>	10	0.106	13	44
*75	63	16	<b>721 900 364</b>	10	0.077	6	44
90	50	16	<b>721 900 372</b>	-	0.179	20	51
90	63	16	<b>721 900 371</b>	-	0.183	13	51
*90	75	16	<b>721 900 370</b>	-	0.136	7	51
110	50	16	<b>721 900 379</b>	-	0.309	30	61
110	63	16	<b>721 900 378</b>	-	0.313	23	61
110	75	16	<b>721 900 377</b>	-	0.255	17	61
*110	90	16	<b>721 900 376</b>	-	0.259	10	61
125	90	16	<b>721 900 381</b>	-	0.484	18	69
*125	110	16	<b>721 900 380</b>	-	0.266	8	69
140	90	16	<b>721 900 386</b>	-	0.560	25	76
*140	110	16	<b>721 900 385</b>	-	0.599	15	76
*140	125	16	<b>721 900 384</b>	-	0.480	7	76
160	90	16	<b>721 900 391</b>	-	0.750	35	86
160	110	16	<b>721 900 390</b>	-	0.868	25	86
*160	140	16	<b>721 900 388</b>	-	0.547	10	86
200	110	10	<b>721 900 393</b>	-	1.900	45	106
200	125	10	<b>721 900 325</b>	-	1.940	37	106
200	140	10	<b>721 900 394</b>	-	1.850	30	106
200	160	10	<b>721 900 392</b>	-	1.070	20	106
225	110	10	<b>721 900 397</b>	-	2.450	58	119
225	125	10	<b>721 900 399</b>	-	2.500	50	119
225	140	10	<b>721 900 398</b>	-	2.500	43	119
225	160	10	<b>721 900 396</b>	-	2.200	33	119
*225	200	10	<b>721 900 181</b>	-	1.400	13	119
250	125	10	<b>721 900 326</b>	-	3.150	62	131
250	140	10	<b>721 900 300</b>	-	3.200	55	131
250	160	10	<b>721 900 301</b>	-	3.080	45	131
*250	200	10	<b>721 900 302</b>	-	3.150	25	131
*250	225	10	<b>721 900 303</b>	-	1.700	12	131
280	140	10	<b>721 900 307</b>	-	4.000	69	148
280	160	10	<b>721 900 308</b>	-	4.100	59	148
280	200	10	<b>721 900 304</b>	-	4.250	40	146
*280	225	10	<b>721 900 305</b>	-	4.300	27	146
*280	250	10	<b>721 900 306</b>	-	2.500	15	146
315	160	10	<b>721 900 313</b>	-	2.050	77	166
315	200	10	<b>721 900 309</b>	-	5.300	57	166
315	225	10	<b>721 900 310</b>	-	5.500	45	164
*315	250	10	<b>721 900 311</b>	-	6.300	33	164
*315	280	10	<b>721 900 312</b>	-	3.550	17	164
355	315	6	<b>721 900 315</b>	-	5.300	20	184
400	250	6	<b>721 900 319</b>	-	9.000	75	206
400	280	6	<b>721 900 320</b>	-	9.200	60	206
400	315	6	<b>721 900 321</b>	-	13.100	42	206
*400	355	6	<b>721 900 322</b>	-	7.600	22	206

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## Caps, PVC-U metric

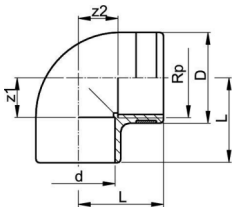


d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
12	16	<b>721 960 104</b>	10	0.004	19	15
16	16	<b>721 960 105</b>	10	0.006	23	21
20	16	<b>721 960 106</b>	10	0.009	27	24
25	16	<b>721 960 107</b>	10	0.014	33	28
32	16	<b>721 960 108</b>	10	0.021	40	32
40	16	<b>721 960 109</b>	10	0.031	47	38
50	16	<b>721 960 110</b>	10	0.052	59	45
63	16	<b>721 960 111</b>	5	0.092	74	56
75	16	<b>721 960 112</b>	-	0.152	87	65
90	16	<b>721 960 113</b>	-	0.270	105	77
110	16	<b>721 960 114</b>	-	0.460	128	94
140	10	<b>721 960 116</b>	-	0.880	164	92
160	10	<b>721 960 117</b>	-	1.490	188	130

# Adaptor Fittings

21 10 02

## Elbows 90°, PVC-U metric - Rp



### Model:

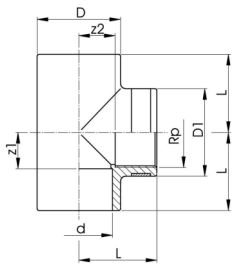
- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

\* without reinforcement, connection only for plastic threads

d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]
12	¼	16	721 100 204	10	0.011	7	7	20	19
16	⅜	16	721 100 205	10	0.015	9	9	25	23
20	½	16	721 100 206	10	0.025	13	11	30	27
25	¾	16	721 100 207	10	0.034	16	15	35	33
32	1	16	721 100 208	10	0.060	19	19	45	39
40	1 ¼	16	721 100 209	10	0.123	23	27	55	50
50	1 ½	16	721 100 210	5	0.185	27	36	62	58
63	2	16	721 100 211	-	0.326	33	46	75	73
*75	2 ½	10	721 100 212	-	0.438	40	56	90	84
*90	3	10	721 100 213	-	0.800	48	68	108	99
*110	4	10	721 100 214	-	1.245	58	82	132	119

21 20 02

## Tees 90°, PVC-U metric - Rp



### Model:

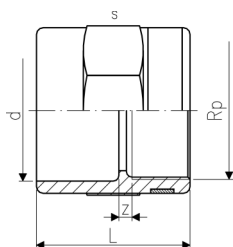
- With solvent cement socket metric, branch with parallel female thread Rp
- Leaving with cylindrical pipe internal thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

\* without reinforcement, connection only for plastic threads

d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	D1 [mm]	L [mm]
12	¼	16	721 200 204	10	0.015	7	7	17	20	19
16	⅜	16	721 200 205	10	0.027	9	9	21	25	23
20	½	16	721 200 206	10	0.025	11	13	26	30	29
25	¾	16	721 200 207	10	0.039	14	15	32	35	33
32	1	16	721 200 208	10	0.071	17	19	40	45	39
40	1 ¼	16	721 200 209	10	0.188	23	26	47	55	49
50	1 ½	16	721 200 210	5	0.190	27	36	59	59	59
63	2	16	721 200 211	-	0.360	33	46	74	75	71
*75	2 ½	10	721 200 212	-	0.609	40	56	92	92	84
*90	3	10	721 200 213	-	1.076	48	68	110	110	99
*110	4	10	721 200 214	-	1.686	58	82	133	132	119

21 91 02

## Adaptor Sockets, PVC-U metric - Rp



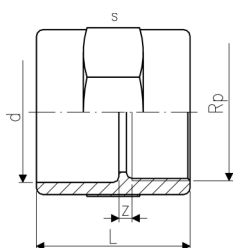
### Model:

- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
12	1/4	16	<b>721 910 204</b>	10	0.010	4	27	22
16	3/8	16	<b>721 910 205</b>	10	0.017	5	31	27
20	1/2	16	<b>721 910 206</b>	10	0.025	5	36	32
25	3/4	16	<b>721 910 207</b>	10	0.032	5	40	36
32	1	16	<b>721 910 208</b>	10	0.070	5	45	46
40	1 1/4	16	<b>721 910 209</b>	10	0.085	5	51	55
50	1 1/2	16	<b>721 910 210</b>	10	0.125	7	59	65
63	2	16	<b>721 910 211</b>	5	0.170	7	69	80

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## Adaptor Sockets, PVC-U metric - Rp



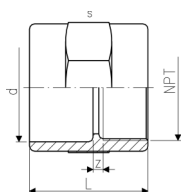
### Model:

- With solvent cement socket metric and parallel female thread Rp
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
75	2 1/2	10	<b>721 916 012</b>	-	0.223	7	82	90
90	3	10	<b>721 916 013</b>	-	0.374	9	94	110
110	4	10	<b>721 916 014</b>	-	0.542	9	110	130

21 91 42

## Adaptor Sockets, PVC-U metric - NPT



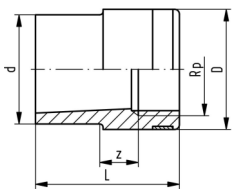
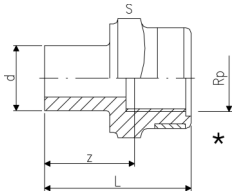
### Model:

- With solvent cement socket metric and NPT (ASTM) taper female thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	NPT [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
20	1/2	10	<b>721 914 206</b>	10	0.022	5	35	32
25	3/4	10	<b>721 914 207</b>	10	0.027	6	40	36
32	1	10	<b>721 914 208</b>	10	0.050	6	45	46
40	1 1/4	10	<b>721 914 209</b>	10	0.075	6	51	55
50	1 1/2	10	<b>721 914 210</b>	10	0.109	10	59	65
63	2	10	<b>721 914 211</b>	5	0.176	10	69	80
75	2 1/2	10	<b>721 914 212</b>	-	0.247	11	82	90
90	3	10	<b>721 914 213</b>	-	0.381	14	94	110
110	4	10	<b>721 914 214</b>	-	0.557	18	110	130

21 91 04

## Reducing Bushes, PVC-U metric - Rp



### Model:

- With solvent cement spigot metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	s [mm]
*12	1/4	16	<b>721 910 404</b>	10	0.007	17	20	27	22
20	3/8	16	<b>721 910 434</b>	10	0.014	24	25	35	15
25	1/2	16	<b>721 910 437</b>	10	0.021	27	30	41	21
32	3/4	16	<b>721 910 441</b>	10	0.032	32	35	48	33
40	1	16	<b>721 910 446</b>	10	0.060	38	45	56	60
50	1 1/4	16	<b>721 910 452</b>	10	0.097	46	55	66	99
63	1 1/2	16	<b>721 910 458</b>	5	0.148	57	62	77	150

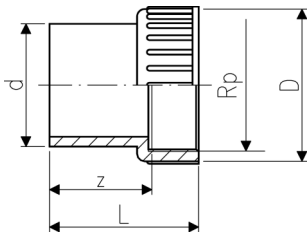
21 90 04

## Adaptor Bushes equal, PVC-U metric - Rp



### Model:

- With solvent cement spigot metric and parallel female thread Rp
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

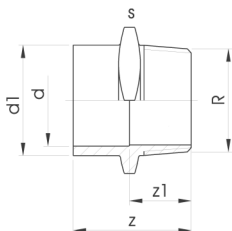


d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20	1/2	10	<b>721 900 406</b>	10	0.019	22	28	37
25	3/4	10	<b>721 900 407</b>	10	0.028	25	34	41
32	1	10	<b>721 900 408</b>	10	0.041	29	42	48
40	1 1/4	10	<b>721 900 409</b>	10	0.065	34	52	56
50	1 1/2	10	<b>721 900 410</b>	-	0.103	40	62	61
63	2	10	<b>721 900 411</b>	5	0.170	49	77	74



21 91 05

## Adaptor Socket-Nipple, PVC-U metric - R



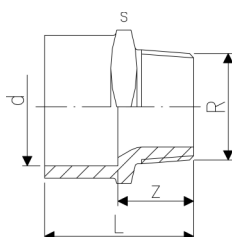
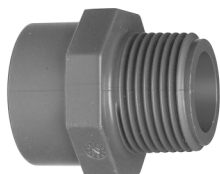
### Model:

- With solvent cement spigot/socket reducing metric and taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	s [mm]
12	3/8	16	16	721 910 555	10	0.011	35	23	27
16	1/2	20	16	721 910 556	10	0.019	42	28	32
20	3/4	25	16	721 910 557	10	0.025	47	31	36
25	1	32	16	721 910 558	10	0.040	54	35	46
32	1 1/4	40	16	721 910 559	10	0.062	60	38	55
40	1 1/2	50	16	721 910 560	10	0.093	66	40	65
50	2	63	16	721 910 561	5	0.165	78	47	80

21 91 07

## Adaptor Bushes equal, PVC-U metric - R



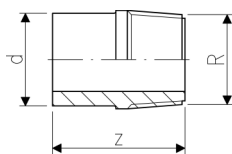
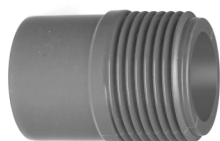
### Model:

- With solvent cement socket metric and taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
16	3/8	16	721 910 705	10	0.012	20	34	27
20	1/2	16	721 910 706	10	0.018	24	40	32
25	3/4	16	721 910 707	10	0.024	25	44	36
32	1	16	721 910 708	10	0.039	28	50	46
40	1 1/4	16	721 910 709	10	0.063	31	57	55
50	1 1/2	16	721 910 710	10	0.088	32	63	65
63	2	16	721 910 711	5	0.158	38	76	80
75	2 1/2	10	721 910 712	-	0.223	42	86	90
90	3	10	721 910 713	-	0.355	46	97	110
110	4	10	721 910 714	-	0.572	53	114	130

21 91 35

## Adaptor Nipples, PVC-U metric - R



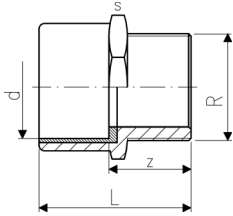
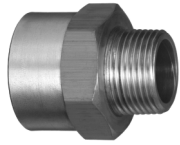
### Model:

- With solvent cement spigot metric and taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	Code	SP	kg	z [mm]
16	3/8	10	721 913 505	10	0.006	31
20	1/2	10	721 913 506	10	0.010	35
25	3/4	10	721 913 507	10	0.015	40
32	1	10	721 913 508	10	0.029	46

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## Adaptor Sockets, Brass/PVC-U metric - R



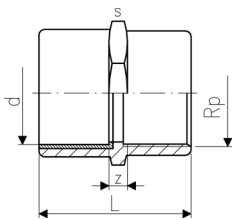
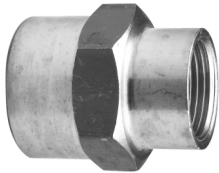
### Model:

- Brass with taper male thread R and PVC-U solvent cement socket insert, metric
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	R [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
16	3/8	16	<b>720 910 705</b>	-	0.128	24	40	32
20	1/2	16	<b>720 910 706</b>	-	0.159	27	45	36
25	3/4	16	<b>720 910 707</b>	-	0.193	28	49	40
32	1	16	<b>720 910 708</b>	-	0.305	33	57	48
40	1 1/4	16	<b>720 910 709</b>	-	0.306	36	64	58
50	1 1/2	16	<b>720 910 710</b>	-	0.680	38	72	70
63	2	16	<b>720 910 711</b>	-	0.960	43	84	85

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## Adaptor Sockets, Brass/PVC-U metric - Rp



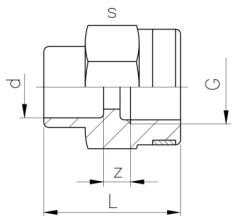
### Model:

- Brass with parallel female thread Rp and PVC-U solvent cement socket insert, metric
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
16	3/8	16	<b>720 910 205</b>	-	0.132	14	40	32
20	1/2	16	<b>720 910 206</b>	-	0.162	14	46	36
25	3/4	16	<b>720 910 207</b>	-	0.204	14	50	40
32	1	16	<b>720 910 208</b>	-	0.323	16	58	48
40	1 1/4	16	<b>720 910 209</b>	-	0.489	17	66	58
50	1 1/2	16	<b>720 910 210</b>	-	0.767	19	74	70
63	2	16	<b>720 910 211</b>	-	1.102	19	86	83

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## Manometer Adaptor Sockets, PVC-U metric - G



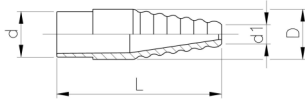
### Model:

- With solvent cement socket metric and female thread G
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-U
- Install with low mechanical stress and avoid large cyclic temperature changes

d [mm]	G [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
12	1/4	16	<b>721 916 204</b>	10	0.010	4	27	22
16	1/2	16	<b>721 916 206</b>	10	0.028	7	36	32

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## Hose Connectors, PVC-U metric



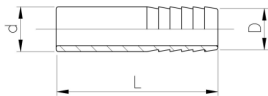
**Model:**

- With solvent cement spigot metric and tapered hose connection

d [mm]	PN	Code	SP	kg	d1 [mm]	D [mm]	L [mm]
10	16	<b>721 960 303</b>	10	0.004	6	12	51
12	16	<b>721 960 304</b>	10	0.004	6	12	51
16	16	<b>721 960 305</b>	10	0.007	8	16	57
20	16	<b>721 960 306</b>	10	0.016	11	22	73

21 96 04

## Hose Connectors, PVC-U metric



**Model:**

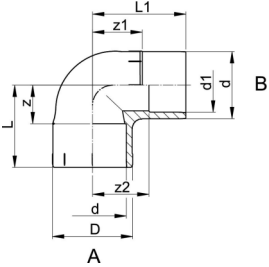
- With solvent cement spigot metric and parallel hose connection

d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
10	16	<b>721 960 403</b>	10	0.002	8	47
12	16	<b>721 960 404</b>	10	0.004	12	51
16	16	<b>721 960 405</b>	10	0.009	16	57
20	16	<b>721 960 406</b>	10	0.015	20	73
25	16	<b>721 960 407</b>	10	0.021	25	79
32	16	<b>721 960 408</b>	10	0.036	30	89
40	16	<b>721 960 409</b>	5	0.061	40	100
50	16	<b>721 960 410</b>	5	0.111	50	105
63	16	<b>721 960 411</b>	5	0.178	60	120

# PRO-FIT Fittings

21 10 03

## PRO-FIT Elbows 90°, PVC-U metric



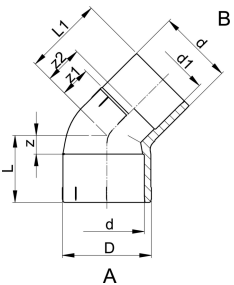
### Model:

- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]
20	16	16	<b>721 100 306</b>	10	0.013	11	16	18	25	27	32
25	20	16	<b>721 100 307</b>	10	0.022	14	18	21	31	33	37
32	25	16	<b>721 100 308</b>	10	0.040	17	22	25	38	39	44
40	32	16	<b>721 100 309</b>	10	0.070	23	30	34	47	49	56
50	40	16	<b>721 100 310</b>	10	0.122	26	36	41	58	57	67
63	50	16	<b>721 100 311</b>	-	0.237	33	45	52	73	71	83

21 15 03

## PRO-FIT Elbows 45°, PVC-U metric



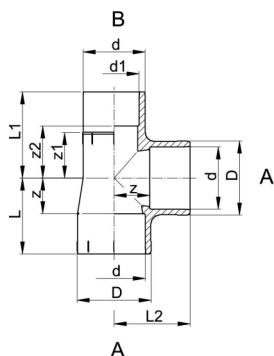
### Model:

- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]
20	16	16	<b>721 150 306</b>	10	0.010	5	9	11	25	21	25
25	20	16	<b>721 150 307</b>	10	0.016	6	11	14	31	25	30
32	25	16	<b>721 150 308</b>	10	0.030	8	13	16	38	30	35
40	32	16	<b>721 150 309</b>	5	0.052	10	17	21	47	36	43
50	40	16	<b>721 150 310</b>	5	0.090	12	18	23	58	43	49
63	50	16	<b>721 150 311</b>	5	0.176	14	23	30	73	52	61

21 20 03

### PRO-FIT Tees 90° equal, PVC-U metric



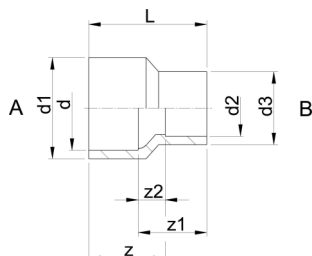
**Model:**

- Outlet: A = Solvent cemented socket metric
- Outlet: B = Solvent cemented spigot in combination with reducing socket metric
- Direct connection from fitting to fitting allowing shortest possible overall length

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]
20	16	16	<b>721 200 306</b>	10	0.017	11	17	19	25	27	33	27
25	20	16	<b>721 200 307</b>	10	0.028	14	19	22	31	33	38	33
32	25	16	<b>721 200 308</b>	10	0.052	17	24	27	38	39	46	39
40	32	16	<b>721 200 309</b>	10	0.098	23	30	34	47	47	56	49
50	40	16	<b>721 200 310</b>	-	0.173	26	36	41	58	57	67	57
63	50	16	<b>721 200 311</b>	-	0.329	33	45	52	73	71	83	71

21 91 09

### PRO-FIT Reducing Bushes, PVC-U metric



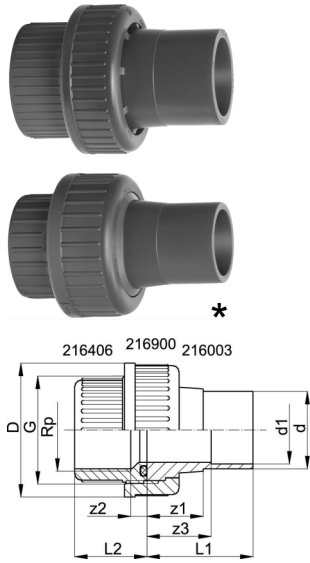
**Model:**

- Outlet: A and B = Solvent cemented spigot in combination with reducing socket metric

d [mm]	d1 [mm]	d2 [mm]	d3 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	z2 [mm]	L [mm]
8	12	10		16	<b>721 910 903</b>	10	0.003	15	15	3	27
12	16	8	12	16	<b>721 910 905</b>	10	0.003	18	18	6	30
12	16	10	16	16	<b>721 910 906</b>	10	0.006	18	18	6	30
16	20	10	16	16	<b>721 910 908</b>	10	0.005	21	19	7	33
16	20	12	16	16	<b>721 910 909</b>	10	0.005	21	19	7	33
20	25	12	16	16	<b>721 910 910</b>	10	0.008	25	21	9	37
20	25	16	20	16	<b>721 910 911</b>	10	0.008	25	23	9	39
25	32	12	16	16	<b>721 910 912</b>	10	0.014	30	23	11	42
25	32	16	20	16	<b>721 910 913</b>	10	0.015	30	26	12	44
25	32	20	25	16	<b>721 910 914</b>	10	0.017	30	27	11	46
32	40	16	20	16	<b>721 910 915</b>	-	0.025	36	28	14	50
32	40	20	25	16	<b>721 910 916</b>	10	0.027	36	30	14	52
32	40	25	32	16	<b>721 910 917</b>	10	0.032	36	33	14	55
40	50	20	25	16	<b>721 910 918</b>	10	0.046	44	34	18	60
40	50	25	32	16	<b>721 910 919</b>	10	0.052	44	37	18	63
40	50	32	40	16	<b>721 910 920</b>	10	0.059	44	40	18	66
50	63	25	32	16	<b>721 910 921</b>	10	0.092	54	42	23	73
50	63	32	40	16	<b>721 910 922</b>	5	0.099	54	45	23	76
50	63	40	50	16	<b>721 910 923</b>	5	0.112	54	49	23	80
63	75	32	40	16	<b>721 910 924</b>	5	0.128	62	46	24	84
63	75	40	50	16	<b>721 910 925</b>	5	0.139	62	50	24	88
63	75	50	63	16	<b>721 910 926</b>	5	0.169	62	55	24	93
75	90	40	50	16	<b>721 910 927</b>	-	0.232	74	56	30	100
75	90	50	63	16	<b>721 910 928</b>	-	0.260	74	61	30	105
75	90	63	75	16	<b>721 910 929</b>	-	0.275	74	68	30	112

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## PRO-FIT Adaptor Unions, PVC-U metric - Rp



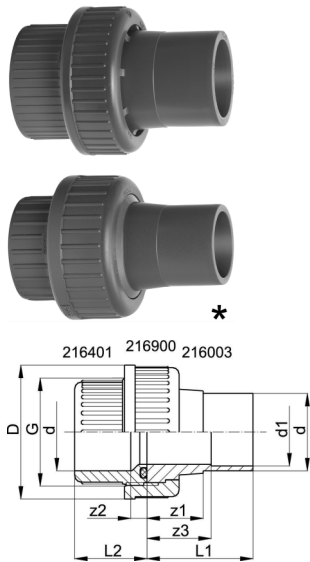
### Model:

- Union End: Solvent cemented spigot in combination with reducing socket metric
- Union Bush: Threaded socket with parallel female thread Rp
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- Can be supplied with FPM O-Ring No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

d [mm]	d1 [mm]	Rp [inch]	PN	EPDM Code	SP	kg	z1 [mm]	z2 [mm]	z3 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
*16	12	3/8	10	<b>721 510 405</b>	10	0.032	22	13	24	35	36	24	3/4
*20	16	1/2	10	<b>721 510 406</b>	10	0.046	24	13	26	43	40	26	1
*25	20	3/4	10	<b>721 510 407</b>	10	0.079	25	14	28	51	44	29	1 1/4
*32	25	1	10	<b>721 510 408</b>	10	0.116	27	15	30	58	49	32	1 1/2
40	32	1 1/4	10	<b>721 510 409</b>	10	0.192	31	19	35	74	57	38	2
50	40	1 1/2	10	<b>721 510 410</b>	-	0.301	35	26	40	83	66	45	2 1/4
63	50	2	10	<b>721 510 411</b>	2	0.496	39	33	46	100	77	56	2 3/4

21 51 03

## PRO-FIT Unions for solvent cement jointing, PVC-U metric



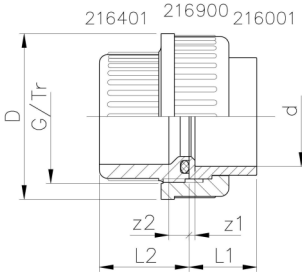
### Model:

- Union End: Solvent cemented spigot in combination with reducing socket metric
- Union Bush: Solvent socket metric
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

d [mm]	d1 [mm]	PN	EPDM Code	FPM Code	SP	kg	z1 [mm]	z2 [mm]	z3 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
*16	12	16	<b>721 510 305</b>	<b>721 510 330</b>	10	0.029	22	13	24	35	36	24	3/4
*20	16	16	<b>721 510 306</b>	<b>721 510 331</b>	10	0.044	24	13	26	43	40	26	1
*25	20	16	<b>721 510 307</b>	<b>721 510 332</b>	10	0.073	25	14	28	51	44	29	1 1/4
*32	25	16	<b>721 510 308</b>	<b>721 510 333</b>	10	0.105	27	15	30	58	49	32	1 1/2
40	32	16	<b>721 510 309</b>	<b>721 510 334</b>	10	0.171	31	19	35	74	57	38	2
50	63	16	<b>721 510 310</b>	<b>721 510 335</b>	-	0.250	35	26	40	83	66	45	2 1/4
63	50	16	<b>721 510 311</b>	<b>721 510 336</b>	-	0.449	39	33	46	100	77	56	2 3/4

# Unions for solvent cement jointing

21 51 01



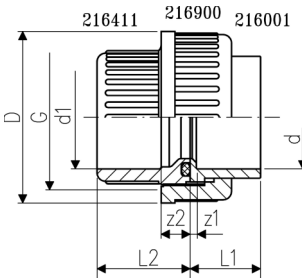
## Unions for solvent cement jointing, PVC-U metric

### Model:

- Union End: solvent socket metric
- Union Bush: Solvent socket metric
- Jointing face: with O-ring groove
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

d [mm]	PN	EPDM Code	FPM Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
10	16	721 510 103	721 510 128	10	0.020	3	10	31	15	22	5/8
12	16	721 510 104	721 510 129	10	0.019	3	10	31	15	22	5/8
16	16	721 510 105	721 510 130	10	0.025	3	10	35	17	24	3/4
20	16	721 510 106	721 510 131	10	0.040	3	10	43	19	26	1
25	16	721 510 107	721 510 132	10	0.066	3	10	51	22	29	1 1/4
32	16	721 510 108	721 510 133	10	0.090	3	10	58	25	32	1 1/2
40	16	721 510 109	721 510 134	10	0.153	3	12	72	29	38	2
50	16	721 510 110	721 510 135	2	0.204	3	14	83	34	45	2 1/4
63	16	721 510 111	721 510 136	-	0.367	3	18	100	41	56	2 3/4
75	10	721 510 112	721 510 137	-	0.615	3	18	135	47	62	Tr108x5
90	10	721 510 113	721 510 138	-	0.925	5	18	158	56	69	Tr128x5
110	10	721 510 114	721 510 139	-	1.425	5	11	188	66	72	Tr154x6

21 51 31



## Unions for solvent cement jointing, PVC-U metric - BS

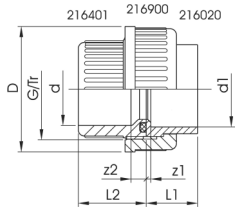
### Model:

- Union End: Solvent cement socket metric
- Union Bush: Solvent cement socket BS
- Gasket: O-ring EPDM No. 48 41 00
- Can be supplied with FPM O-Ring No. 49 41 00

d [mm]	d1 [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	16	721 513 105	100	0.025	3	8	35	17	24	3/4
20	1/2	16	721 513 106	10	0.040	3	9	43	19	26	1
25	3/4	16	721 513 107	50	0.065	3	9	51	22	29	1 1/4
32	1	16	721 513 108	35	0.090	3	9	58	25	32	1 1/2
40	1 1/4	16	721 513 109	20	0.155	3	10	72	29	38	2
50	1 1/2	16	721 513 110	15	0.200	3	10	83	34	40	2 1/4
63	2	16	721 513 111	-	0.355	3	10	100	41	46	2 3/4

21 51 41

## Unions for solvent cement jointing, PVC-U metric - ASTM



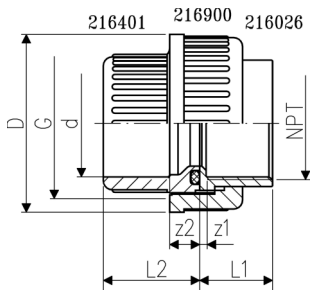
**Model:**

- Union End: Solvent cement socket ASTM
- Union Bush: Solvent socket metric
- Gasket: O-ring EPDM No. 48 41 00
- Can be supplied with FPM O-Ring No. 49 41 00

d [mm]	d1 [inch]	PN	Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	16	<b>721 514 105</b>	0.022	3	10	35	22	24	3/4
20	1/2	16	<b>721 514 106</b>	0.047	3	10	43	25	26	1
25	3/4	16	<b>721 514 107</b>	0.065	3	10	51	28	29	1 1/4
32	1	16	<b>721 514 108</b>	0.103	3	10	58	32	32	1 1/2
40	1 1/4	16	<b>721 514 109</b>	0.174	3	12	72	35	38	2
50	1 1/2	16	<b>721 514 110</b>	0.239	3	14	83	38	45	2 1/4
63	2	16	<b>721 514 111</b>	0.435	3	18	100	41	56	2 3/4

21 51 42

## Adaptor Unions, PVC-U metric - NPT



**Model:**

- Union End: Taper female thread NPT (ASTM)
- Union Bush: Solvent socket metric
- Gasket: O-ring EPDM No. 48 41 00
- Can be supplied with FPM O-Ring No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U

d [mm]	NPT [inch]	PN	Code	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3/8	10	<b>721 514 205</b>	0.026	4	10	35	17	24	3/4
20	1/2	10	<b>721 514 206</b>	0.042	2	10	43	19	26	1
25	3/4	10	<b>721 514 207</b>	0.068	4	10	51	22	29	1 1/4
32	1	10	<b>721 514 208</b>	0.093	4	10	58	25	32	1 1/2
40	1 1/4	10	<b>721 514 209</b>	0.163	6	12	72	29	38	2
50	1 1/2	10	<b>721 514 210</b>	0.221	11	14	83	34	40	2 1/4
63	2	10	<b>721 514 211</b>	0.395	17	18	100	41	46	2 3/4

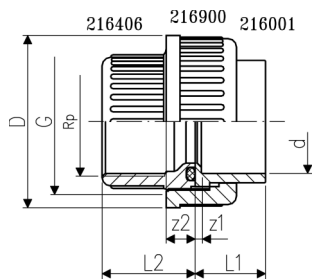


## 21 51 02

### Adaptor Unions, PVC-U metric - Rp

#### Model:

- Union End: Solvent cement socket metric
- Union Bush: Parallel female thread Rp
- Gasket: O-Ring No. 48 41 00
- Can be supplied with FPM O-Ring No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-U



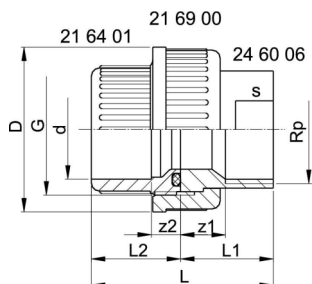
d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
12	¼	10	<b>721 510 204</b>	10	0.021	3	12	31	15	22	¾
16	⅜	10	<b>721 510 205</b>	10	0.028	3	13	35	17	24	¾
20	½	10	<b>721 510 206</b>	10	0.042	3	13	43	19	26	1
25	¾	10	<b>721 510 207</b>	10	0.072	3	14	51	22	29	1 ¼
32	1	10	<b>721 510 208</b>	10	0.101	3	15	58	25	32	1 ½
40	1 ¼	10	<b>721 510 209</b>	10	0.174	3	19	72	29	38	2
50	1 ½	10	<b>721 510 210</b>	2	0.255	3	26	83	34	45	2 ¼
63	2	10	<b>721 510 211</b>	2	0.414	3	33	100	41	56	2 ¾

## 21 54 02

### Adaptor Unions, PVC-U / Stainless Steel metric - Rp

#### Model:

- Union End: Stainless steel 1.4404 (316L), parallel female thread Rp
- Union Bush: Solvent cement socket PVC-U metric
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00



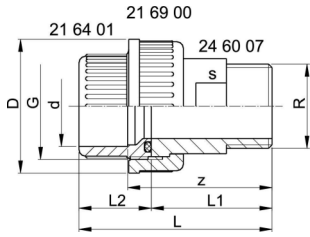
d [mm]	Rp [inch]	PN	EPDM Code	FPM Code	SP	kg
16	⅜	16	<b>721 540 205</b>	<b>721 540 230</b>	-	0.053
20	½	16	<b>721 540 206</b>	<b>721 540 231</b>	-	0.096
25	¾	16	<b>721 540 207</b>	<b>721 540 232</b>	-	0.154
32	1	16	<b>721 540 208</b>	<b>721 540 233</b>	-	0.212
40	1 ¼	16	<b>721 540 209</b>	<b>721 540 234</b>	-	0.356
50	1 ½	16	<b>721 540 210</b>	<b>721 540 235</b>	-	0.455
63	2	16	<b>721 540 211</b>	<b>721 540 236</b>	-	0.721

d [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	9	10	35	43	19	24	¾	19
20	11	10	43	50	24	26	1	24
25	11	10	51	55	26	29	1 ¼	29
32	12	10	58	61	29	32	1 ½	36
40	14	12	72	71	33	38	2	45
50	15	14	83	79	34	45	2 ¼	54
63	15	18	100	95	39	56	2 ¾	63

21 54 07

## Adaptor Unions, PVC-U / Stainless Steel metric - R



### Model:

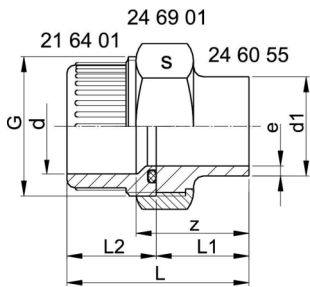
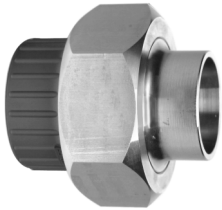
- Union End: Stainless steel 1.4404 (316L), taper male thread R
- Union Bush: Solvent cement socket PVC-U metric
- Union nut: PVC-U
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

d [mm]	R [inch]	PN	EPDM Code	FPM Code	SP	kg
16	3/8	16	721 540 705	721 540 730	-	0.073
20	1/2	16	721 540 706	721 540 731	-	0.126
25	3/4	16	721 540 707	721 540 732	-	0.174
32	1	16	721 540 708	721 540 733	-	0.262
40	1 1/4	16	721 540 709	721 540 734	-	0.476
50	1 1/2	16	721 540 710	721 540 735	-	0.535
63	2	16	721 540 711	721 540 736	-	0.931

d [mm]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	40	35	54	30	24	3/4	19
20	44	43	60	34	26	1	24
25	46	51	65	36	29	1 1/4	32
32	50	58	72	40	32	1 1/2	37
40	58	72	84	46	38	2	48
50	62	83	93	48	45	2 1/4	54
63	73	100	111	55	56	2 3/4	69

21 54 55

## Adaptor Unions, PVC-U / Stainless Steel metric - Welding End



### Model:

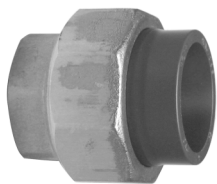
- Union End: Stainless steel 1.4404 (316L) with welding end
- Union Bush: Solvent cement socket PVC-U metric
- Union Nut: stainless steel WN 1.4404 (316L)
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00

d [mm]	d1 [mm]	PN	EPDM Code	FPM Code	SP	kg
16	17	16	721 545 505	721 545 530	-	0.101
20	21	16	721 545 506	721 545 531	-	0.176
25	27	16	721 545 507	721 545 532	-	0.204
32	34	16	721 545 508	721 545 533	-	0.313
40	42	16	721 545 509	721 545 534	-	0.493
50	48	16	721 545 510	721 545 535	-	0.566
63	60	16	721 545 511	721 545 536	-	0.902

d [mm]	z [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	G [inch]	s [mm]
16	28	42	18	24	1.6	3/4	32
20	32	48	22	26	2.0	1	41
25	33	52	23	29	2.0	1 1/4	46
32	36	58	26	32	2.0	1 1/2	55
40	38	64	26	38	2.0	2	68
50	42	73	28	45	2.0	2 1/4	74
63	50	88	32	56	2.6	2 3/4	88

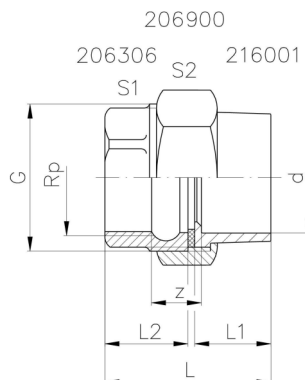
21 55 02

## Adaptor Unions, PVC-U / Brass metric - Rp



### Model:

- Union End: Solvent cement socket PVC-U metric
- Union Bush: brass, parallel female thread Rp
- Union Nut: brass
- Gasket: flat gasket EPDM No. 48 40 00



d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	S1 [mm]	S2 [mm]
16	3/8	16	<b>721 550 205</b>	10	0.093	12	36	17	17	3/4	30	27
20	1/2	16	<b>721 550 206</b>	10	0.139	13	42	19	20	1	38	27
25	3/4	16	<b>721 550 207</b>	5	0.235	14	48	22	23	1 1/4	47	32
32	1	16	<b>721 550 208</b>	2	0.290	15	55	25	27	1 1/2	52	38
40	1 1/4	16	<b>721 550 209</b>	2	0.484	15	60	29	28	2	66	47
50	1 1/2	16	<b>721 550 210</b>	2	0.536	16	66	34	29	2 1/4	72	53
63	2 1/2	16	<b>721 550 211</b>	2	0.856	17	78	41	34	2 3/4	87	65
75	2 1/2	16	<b>721 550 212</b>	-	1.578	17	88	47	38	3 1/2	110	82
90	3	16	<b>721 550 213</b>	-	1.687	21	102	56	43	4	120	95

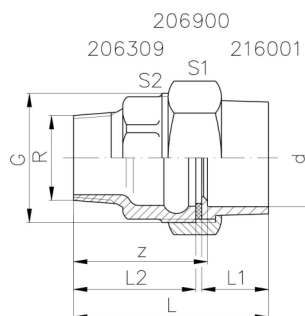
21 55 07

## Adaptor Unions, PVC-U / Brass metric - R



### Model:

- Union End: Solvent cement socket PVC-U metric
- Union Bush: brass, taper male thread R
- Union Nut: brass
- Gasket: flat gasket EPDM No. 48 40 00

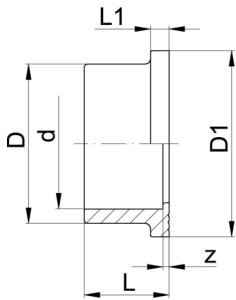


d [mm]	R [inch]	PN	Code	SP	kg	z [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	S1 [mm]	S2 [mm]
16	3/8	16	<b>721 550 705</b>	10	0.117	34	48	17	29	3/4	30	27
20	1/2	16	<b>721 550 706</b>	10	0.148	38	54	19	32	1	38	26
25	3/4	16	<b>721 550 707</b>	5	0.289	55	74	22	49	1 1/4	47	32
32	1	16	<b>721 550 708</b>	5	0.358	59	81	25	53	1 1/2	52	38
40	1 1/4	16	<b>721 550 709</b>	2	0.560	60	86	29	54	2	66	60
50	1 1/2	16	<b>721 550 710</b>	2	0.739	67	98	34	61	2 1/4	72	66
63	2	16	<b>721 550 711</b>	-	1.142	75	113	41	69	2 3/4	87	83
75	2 1/2	16	<b>721 550 712</b>	-	2.087	82	126	47	76	3 1/2	110	80
90	3	16	<b>721 550 713</b>	-	2.293	91	142	56	83	4	120	80

# Flange Adaptors

21 79 01

## Flange Adaptors, PVC-U Jointing face serrated, metric



### Model:

- Solvent cement socket metric
- Counterpart: Flange Adaptor serrated No. 21 79 01 or combined Flange Adaptor No. 21 79 01 for O-ring or Flat Gasket or Flange Adaptor with O-ring groove No. 21 81 01 for O-ring
- Gasket: Flange Gasket EPDM No. 48 44 01, FPM No. 49 44 01 or Flat Gasket EPDM No. 48 40 01, FPM No. 49 40 01 or O-ring EPDM No. 48 41 01, FPM 49 41 01
- Flange: PVC-U No. 21 70 00, PP with steel ring, Backing Flange PP-V for socket systems metric No. 27 70 04

### \* Combinend Flange Adaptor (jointing face serrated and flat)

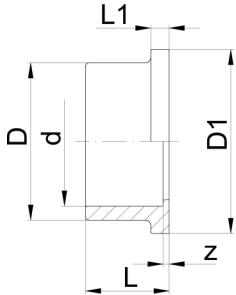
d [mm]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
63	50	16	<b>721 790 111</b>	10	0.103	3	77	90	41	9
75	65	16	<b>721 790 112</b>	-	0.155	3	91	106	47	10
90	80	16	<b>721 790 113</b>	-	0.254	5	108	125	56	11
110	100	16	<b>721 790 114</b>	-	0.418	5	131	150	66	12
125	100	16	<b>721 790 115</b>	-	0.548	5	148	170	74	13
140	125	16	<b>721 790 116</b>	-	0.740	5	165	188	81	14
*160	150	16	<b>721 790 117</b>	-	1.077	5	188	213	91	16
*200	200	10	<b>721 790 119</b>	-	1.476	6	224	250	112	24
*225	200	10	<b>721 790 120</b>	-	1.758	6	248	274	125	25
250	250	10	<b>721 790 121</b>	-	2.150	9	274	303	140	23
*280	250	10	<b>721 790 122</b>	-	2.895	5	308	329	151	23
*315	300	6	<b>721 790 123</b>	-	4.450	8	346	379	172	27
355	350	6	<b>721 790 124</b>	-	5.800	10	384	430	194	32
400	400	6	<b>721 790 125</b>	-	8.900	10	438	482	216	34

21 80 01

## Flange Adaptors PVC-U Jointing face flat, metric

**Model :**

- Solvent cement socket metric
- Counterpart: Flange Adaptor with groove No. 21 81 01 for O-ring  
Flange Adaptor flat No. 21 80 01 for Flange Gasket  
\* Combined Flange Adaptor No. 21 79 01 for O-ring or Flat Gasket
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01  
Flange Gasket EPDM No. 48 44 01, FPM No. 49 44 01  
\* Flat Gasket EPDM No. 48 40 01, FPM No. 49 40 01
- Flange: PVC-U No. 21 70 00, PP with steel ring,  
Backing Flange PP-V for socket systems metric  
No. 27 70 04



d [mm]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
16	10	16	<b>721 800 105</b>	10	0.008	3	22	29	17	6
20	15	16	<b>721 800 106</b>	10	0.011	3	27	34	19	6
25	20	16	<b>721 800 107</b>	10	0.016	3	33	41	22	7
32	25	16	<b>721 800 108</b>	10	0.024	3	41	50	25	7
40	32	16	<b>721 800 109</b>	10	0.039	3	50	61	29	8
50	40	16	<b>721 800 110</b>	10	0.056	3	61	73	34	8
63	50	16	<b>721 800 111</b>	10	0.103	3	77	90	41	9
75	65	16	<b>721 800 112</b>	-	0.155	3	91	106	47	10
90	80	16	<b>721 800 113</b>	-	0.156	5	108	125	56	11
110	100	16	<b>721 800 114</b>	-	0.417	5	131	150	66	12
125	100	16	<b>721 800 115</b>	-	0.549	5	148	170	74	13
140	125	16	<b>721 800 116</b>	-	0.618	5	165	188	81	14
*160	150	16	<b>721 790 117</b>	-	1.077	5	188	213	91	16
*200	200	10	<b>721 790 119</b>	-	1.476	6	224	250	112	24
*225	200	10	<b>721 790 120</b>	-	1.758	6	248	274	125	25
250	250	10	<b>721 800 121</b>	-	2.150	9	274	303	140	23
*280	250	10	<b>721 790 122</b>	-	2.895	5	308	329	151	23
*315	300	6	<b>721 790 123</b>	-	4.450	8	346	379	172	27

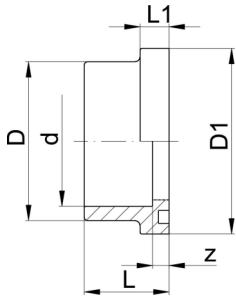
21 81 01

## Flange Adaptors, PVC-U Jointing face with O-ring groove, metric



### Model:

- Solvent cement socket metric
- Counterpart: Flange Adaptor flat No. 21 80 01  
Combined Flange Adaptor (d160, d200, d225, d280, d315)
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01
- Flange: PVC-U No. 21 70 00, PP-V for socket systems metric No. 27 70 04



d [mm]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
16	10	16	<b>721 810 105</b>	10	0.008	6	22	29	20	9
20	15	16	<b>721 810 106</b>	-	0.011	6	27	34	22	9
25	20	16	<b>721 810 107</b>	10	0.018	6	33	41	25	10
32	25	16	<b>721 810 108</b>	10	0.027	6	41	50	28	10
40	32	16	<b>721 810 109</b>	10	0.045	8	50	61	34	13
50	40	16	<b>721 810 110</b>	10	0.068	8	61	73	39	13
63	50	16	<b>721 810 111</b>	10	0.120	8	77	90	46	14
75	65	16	<b>721 810 112</b>	-	0.182	8	91	106	52	15
90	80	16	<b>721 810 113</b>	-	0.291	10	108	125	61	16
110	100	16	<b>721 810 114</b>	-	0.468	11	131	150	72	18
125	100	16	<b>721 810 115</b>	-	0.753	11	148	170	80	19
140	125	16	<b>721 810 116</b>	-	0.830	11	165	188	87	20
160	150	16	<b>721 810 117</b>	-	1.180	11	188	213	97	22
200	200	10	<b>721 810 119</b>	-	1.593	12	224	250	118	30
225	200	10	<b>721 810 120</b>	-	1.895	12	248	274	131	31
250	250	10	<b>721 810 121</b>	-	2.150	9	274	303	140	23
280	250	10	<b>721 810 122</b>	-	3.100	13	308	329	158	30
315	300	6	<b>721 810 123</b>	-	4.830	17	346	379	180	35

# Solvent Cement and Tools

## Tangit Solvent Cement for PVC-U



- Special solvent cement, transparent. The use of "DYTEX" is recommended for systems carrying strong oxidizing acids. See "Design Fundamental PVC-U" for instructions.
- Tin à 0.250, 0.500 und 1.000 kg (Net)
- Solvent cement **without brush**

Code	SP	kg
799 298 000	-	0.142
799 298 001	24	0.330
799 298 002	-	0.625
799 298 003	8	1.180

## Dytex Special Solvent Cement



- 1.350 kg (net) tin

Code	SP	kg
799 298 012	-	1.465

## Cap for cement



- Cap prevents the evaporation of the solvent whilst using the Tangit cement

Code	kg
799 298 028	0.030

## Tangit Cleaner



Model:

- For PVC-U, PVC-C, ABS
- 1 litre tin

Code	kg
799 298 010	0.900

## Round Brushes



d-d [mm]		Code	kg
6 - 10	4 mm (for Fittings 6-10mm)	799 299 001	0.005
12 - 32	8 mm (for Fittings 12-32mm)	799 299 002	0.009

## Flat Brushes



d-d [mm]		Code	kg
40 - 63	25x3 mm (for Fittings 40-63mm)	799 299 003	0.015
75 - 225	50x5 mm (for Fittings 75-225mm)	799 299 004	0.026
250 - 400	75x6 mm (for Fittings 250-400mm)	799 299 005	0.045



## Chamfering Tool

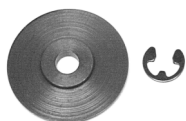
Size	d-d [mm]	Code	kg
1	16 - 75	<b>799 495 145</b>	0.720
2	32 - 200	<b>799 495 146</b>	0.992



## PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

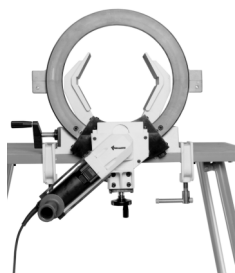
d-d [mm]	Article	Code	SP	kg
10 - 63	PPC 63, s max. = 7,2mm	<b>790 109 001</b>	-	0.710
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	-	1.400
110 - 160	PPC 160, s max. = 19,0mm	<b>790 109 003</b>	-	1.880



## Replacement cutting wheels

- for plastic pipe cutter

d-d [mm]	Article	Code	SP	kg
10 - 63	SR 63 max. s=7,2 mm	<b>790 109 011</b>	-	0.004
50 - 110	SR 110/160 max. s=12,7 mm	<b>790 109 012</b>	-	0.015
110 - 160	SR 160 max. s=19,0 mm	<b>790 109 013</b>	-	0.023



## for cutting of plastic pipes

- For size range from d 110 - 250 mm
- Composed of:
- Divisible guide ring
- Carriage with motor and gear unit
- Light metal clamping device for size range from d 160 - 250 mm
- Screws for fastening to workbench or tilted floor stand
- Adapter jaws d 110 - 160 mm
- "2 material specific saw blades

\* Different version for other countries.

\* as long as on stock

d-d [mm]	Performance	Code	SP	kg
110 - 250	230 V/50 Hz	<b>790 201 001</b>	-	35.000
*110 - 250	120 V/60 Hz	<b>790 201 002</b>	-	33.000
*110 - 250	110 V/50 Hz	<b>790 201 003</b>	-	33.000

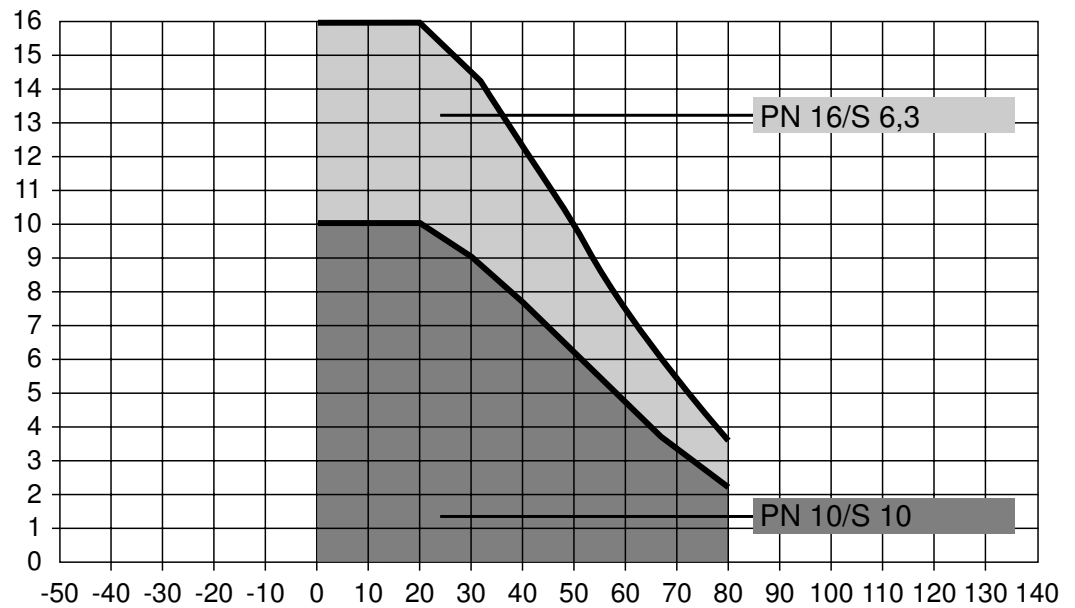




# The Resistant PVC-C Piping System

## Pressure-Temperature Parameters for Pipe and Fittings in PVC-C

25 year life span with built in safety factor C










### Post Chlorinated Polyvinylchloride (PVC-C)

PVC-C has due to its high chlorine content an excellent chemical- and temperature resistance (up to +80 °C). PVC-C is therefore an ideal raw material for aggressive and or corrosive environments in industry.

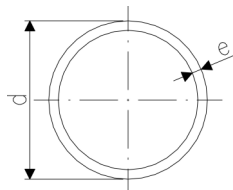
### Complete PVC-C System

George Fischer has a wide range of PVC-C fittings, pipe, hand operated- and automatic valves, as well as measuring- and control systems. Dimensions in ISO/DIN from d 16 to d 225.

# PVC-C metric

		Page
	Pipes	204
	Fittings	205
	Adaptor Fittings	211
	Solvent Cement Unions	213
	Adaptor Unions	214
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# Pipes



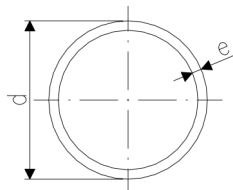
## Pipes PVC-C grey

### Series S 6.3, SDR 13.6, nominal pressure PN 16 (at 20°C)

**Model:**

- Material: PVC-C
- Colour: RAL 7038 - agate grey
- Dimension: DIN 8079
- Pipe length: 5m, with plain ends

d [mm]	PN	Code	kg/m	e [mm]
16	16	<b>163 017 130</b>	0.136	1,8
20	16	<b>163 017 131</b>	0.217	2,3
25	16	<b>163 017 132</b>	0.326	2,8
32	16	<b>163 017 133</b>	0.379	2,4
40	16	<b>163 017 134</b>	0.589	3,0
50	16	<b>163 017 135</b>	0.896	3,7
63	16	<b>163 017 136</b>	1.420	4,7
75	16	<b>163 017 137</b>	2.010	5,6
90	16	<b>163 017 138</b>	2.880	6,7
110	16	<b>163 017 139</b>	4.270	8,2
160	16	<b>163 017 142</b>	8.970	11,9



## Pipes PVC-C grey

### Series S10, SDR 21, nominal pressure PN 10

**Model:**

- Material: PVC-C
- Colour: RAL 7038 - agate grey
- Dimension: DIN 8079
- Pipe length: 5m, with plain ends

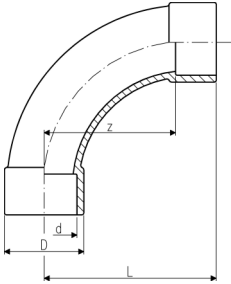
d [mm]	PN	Code	kg/m	e [mm]
75	10	<b>163 017 187</b>	1.320	3,6
90	10	<b>163 017 188</b>	1.930	4,3
110	10	<b>163 017 189</b>	2.890	5,3
160	10	<b>163 017 192</b>	6.060	7,7
225	10	<b>163 017 195</b>	11.900	10,8

# Fittings

23 00 01

## Bend 90°, PVC-C

- Radius = 2 d



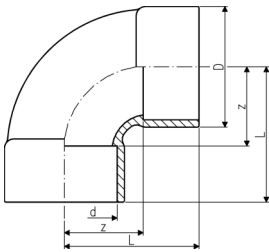
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
20	16	<b>723 000 106</b>	10	0.030	40	27	58
25	16	<b>723 000 107</b>	10	0.055	50	35	71
32	16	<b>723 000 108</b>	10	0.075	64	38	88
40	16	<b>723 000 109</b>	-	0.276	80	54	109
50	16	<b>723 000 110</b>	-	0.297	100	61	131
63	16	<b>723 000 111</b>	-	0.574	126	76	163
75	16	<b>723 000 112</b>	1	0.830	150	90	194
90	16	<b>723 000 113</b>	-	1.489	180	113	231
110	16	<b>723 000 114</b>	-	2.965	220	137	284
160	16	<b>723 000 117</b>	-	7.950	320	192	406

23 01 01

## Bend 90°, short pattern, PVC-C

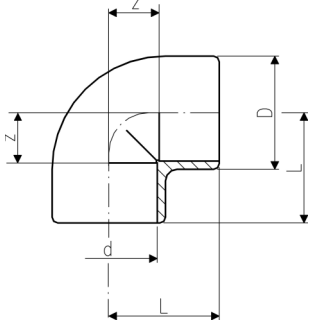
### Radius = 0,75 d

- Radius = 0,75 d



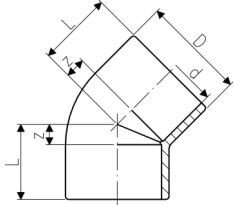
d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
225	10	<b>723 010 120</b>	-	7.950	168	256	287

23 10 01

**Elbow 90°, PVC-C**

d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	<b>723 100 105</b>	10	0.010	9	21	23
20	16	<b>723 100 106</b>	10	0.014	11	25	27
25	16	<b>723 100 107</b>	10	0.026	14	31	33
32	16	<b>723 100 108</b>	10	0.046	17	40	39
40	16	<b>723 100 109</b>	10	0.082	21	49	47
50	16	<b>723 100 110</b>	10	0.138	26	61	57
63	16	<b>723 100 111</b>	-	0.310	33	76	72
75	16	<b>723 100 112</b>	-	0.439	40	90	84
90	16	<b>723 100 113</b>	-	0.606	46	110	97
110	16	<b>723 100 114</b>	-	1.625	61	136	122
160	16	<b>723 100 117</b>	-	3.120	80	185	166

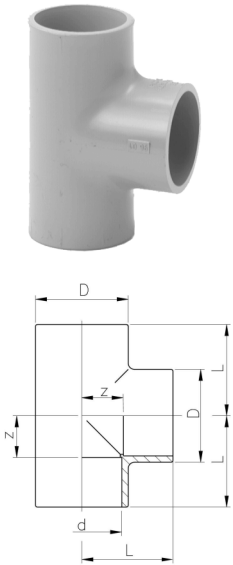
23 15 01

**Elbow 45°, PVC-C**

d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	<b>723 150 105</b>	10	0.005	5	21	19
20	16	<b>723 150 106</b>	10	0.012	5	25	21
25	16	<b>723 150 107</b>	10	0.019	6	31	25
32	16	<b>723 150 108</b>	10	0.037	8	40	30
40	16	<b>723 150 109</b>	5	0.063	10	49	36
50	16	<b>723 150 110</b>	5	0.109	12	61	43
63	16	<b>723 150 111</b>	-	0.208	14	76	52
75	16	<b>723 150 112</b>	-	0.323	17	88	61
90	16	<b>723 150 113</b>	-	0.521	20	106	71
110	16	<b>723 150 114</b>	-	1.151	28	137	89
160	16	<b>723 150 117</b>	-	2.400	36	185	122
225	10	<b>723 150 120</b>	-	4.460	49	250	168

23 20 01

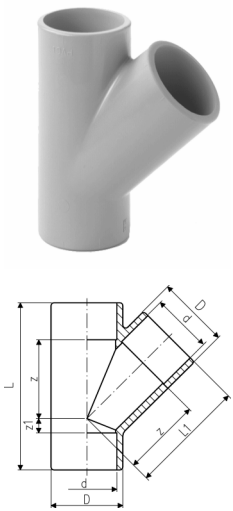
**Tee 90°, PVC-C**



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	
16	16	<b>723 200 105</b>	10	0.014	9	21	23	
20	16	<b>723 200 106</b>	10	0.020	11	25	27	
25	16	<b>723 200 107</b>	10	0.034	14	31	33	
32	16	<b>723 200 108</b>	10	0.060	17	40	39	
40	16	<b>723 200 109</b>	10	0.106	21	49	47	
50	16	<b>723 200 110</b>	-	0.186	26	61	57	
63	16	<b>723 200 111</b>	-	0.360	34	76	72	
75	16	<b>723 200 112</b>	-	0.645	41	92	84	
90	16	<b>723 200 113</b>	-	1.118	46	111	97	
110	16	<b>723 200 114</b>	-	1.446	55	127	116	
160	16	<b>723 200 117</b>	-	5.280	81	193	167	
225	10	<b>723 200 120</b>	-	9.550	114	256	233	

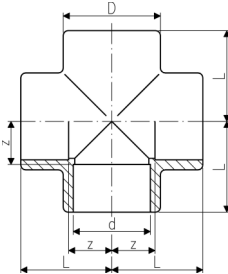
23 25 01

**Tee 45°, PVC-C**



d [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	
20	10	<b>723 250 106</b>	10	0.039	30	6	28	68	46	
25	10	<b>723 250 107</b>	10	0.062	36	9	33	83	55	
32	10	<b>723 250 108</b>	10	0.108	45	10	41	99	67	
40	10	<b>723 250 109</b>	-	0.171	56	10	50	118	82	
50	10	<b>723 250 110</b>	-	0.287	66	12	60	140	97	
63	10	<b>723 250 111</b>	-	0.445	85	14	74	175	123	
75	6	<b>723 250 112</b>	-	0.870	101	18	91	207	145	
90	6	<b>723 250 113</b>	-	1.350	122	20	107	245	173	
110	6	<b>723 250 114</b>	-	2.695	149	27	134	298	210	

23 30 01

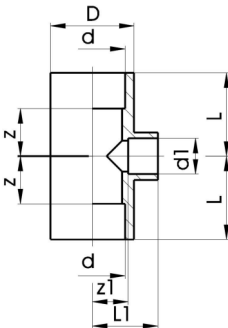
**Crosses, PVC-C**

d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]	
32	16	<b>723 300 108</b>	-	0.101	17	43	39	
63	16	<b>723 300 111</b>	-	0.528	34	79	72	

23 20 01

**Tees 90° reducing, PVC-C**

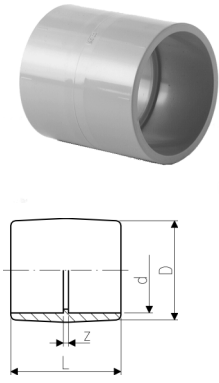
\*Tee 90° delivered with the required reducing bushes



d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	D [mm]	L [mm]	L1 [mm]	
25	20	16	<b>723 200 134</b>	10	0.042	14	14	33	33	30	
32	25	16	<b>723 200 138</b>	10	0.070	17	17	41	39	36	
40	25	16	<b>723 200 151</b>	10	0.120	23	23	50	49	42	
40	32	16	<b>723 200 147</b>	10	0.120	23	23	50	49	45	
50	20	16	<b>723 200 009</b>	5	0.196	28	28	62	59	44	
50	25	16	<b>723 200 010</b>	5	0.200	28	28	62	59	47	
50	32	16	<b>723 200 164</b>	5	0.200	28	28	62	59	50	
63	25	16	<b>723 200 011</b>	-	0.360	34	34	77	73	53	
63	32	16	<b>723 200 178</b>	-	0.368	35	34	77	73	56	
63	50	16	<b>723 200 170</b>	-	0.386	33	34	73	71	65	
*75	63	16	<b>723 200 184</b>	-	0.766	41		92	84		
*90	32	16	<b>723 200 142</b>	-	1.436	46		111	97		
*90	63	16	<b>723 200 145</b>	-	1.348	46		111	97		
*110	32	16	<b>723 200 135</b>	-	2.796	56		133	117		
*110	90	16	<b>723 200 137</b>	-	2.677	61		139	122		

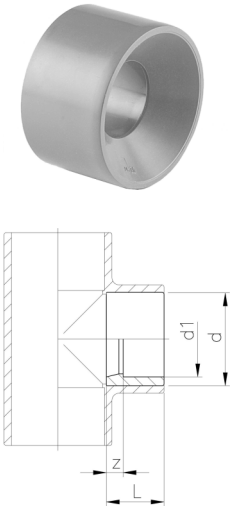


23 91 01

**Socket, PVC-C**

d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	L [mm]
16	16	<b>723 910 105</b>	10	0.006	3	22	31
20	16	<b>723 910 106</b>	10	0.010	3	26	35
25	16	<b>723 910 107</b>	10	0.015	3	31	41
32	16	<b>723 910 108</b>	10	0.024	3	39	47
40	16	<b>723 910 109</b>	10	0.042	3	49	55
50	16	<b>723 910 110</b>	10	0.078	3	61	65
63	16	<b>723 910 111</b>	10	0.157	3	76	79
75	16	<b>723 910 112</b>	-	0.202	4	87	92
90	16	<b>723 910 113</b>	-	0.347	5	110	107
110	16	<b>723 910 114</b>	-	0.760	5	131	132
160	16	<b>723 910 117</b>	-	1.600	8	183	180
225	10	<b>723 910 120</b>	-	3.750	10	253	248

23 90 03

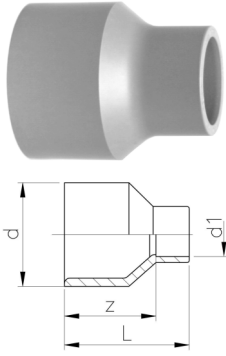
**Reducing Bush (Short pattern), PVC-C**

d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
20	16	16	<b>723 900 334</b>	10	0.004	2	16
25	20	16	<b>723 900 337</b>	10	0.004	3	19
32	20	16	<b>723 900 342</b>	10	0.015	6	22
32	25	16	<b>723 900 341</b>	10	0.009	4	22
40	20	16	<b>723 900 348</b>	10	0.023	10	26
40	25	16	<b>723 900 347</b>	10	0.024	7	26
40	32	16	<b>723 900 346</b>	10	0.017	4	26
50	20	16	<b>723 900 355</b>	10	0.036	15	31
50	25	16	<b>723 900 354</b>	10	0.038	12	31
50	32	16	<b>723 900 353</b>	10	0.051	9	31
50	40	16	<b>723 900 352</b>	10	0.031	5	31
63	32	16	<b>723 900 360</b>	10	0.088	16	38
63	40	16	<b>723 900 359</b>	10	0.067	12	38
63	50	16	<b>723 900 358</b>	10	0.065	6	38
75	50	16	<b>723 900 365</b>	10	0.105	13	44
75	63	16	<b>723 900 364</b>	10	0.083	6	44
90	50	16	<b>723 900 372</b>	-	0.196	20	51
90	63	16	<b>723 900 371</b>	-	0.185	14	51
90	75	16	<b>723 900 370</b>	-	0.149	8	51
110	63	16	<b>723 900 378</b>	-	0.334	24	61
110	90	16	<b>723 900 376</b>	-	0.279	10	61
160	110	16	<b>723 900 390</b>	-	0.966	25	86
225	160	16	<b>723 900 396</b>	-	2.380	33	119

23 91 03

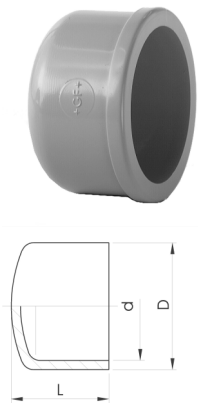
**Reducing Bushes Long, PVC-C****Model:**

- With spigot and solvent cement socket



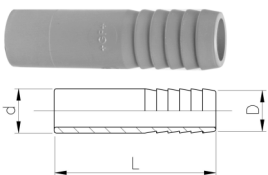
d [mm]	d1 [mm]	PN	Code	SP	kg	z [mm]	L [mm]
32	20	16	<b>723 910 342</b>	-	0.023	30	46
40	25	16	<b>723 910 347</b>	10	0.036	36	55
50	25	16	<b>723 910 354</b>	10	0.059	44	63
63	32	16	<b>723 910 360</b>	5	0.110	54	76
75	40	16	<b>723 910 366</b>	5	0.165	62	88
90	63	16	<b>723 910 371</b>	-	0.313	74	112

23 96 01

**Cap, PVC-C**

d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
16	16	<b>723 960 105</b>	-	0.008	26	24
20	16	<b>723 960 106</b>	10	0.011	30	25
25	16	<b>723 960 107</b>	10	0.019	37	30
32	16	<b>723 960 108</b>	-	0.027	44	34
40	16	<b>723 960 109</b>	-	0.047	55	41
50	16	<b>723 960 110</b>	-	0.064	64	44
63	16	<b>723 960 111</b>	5	0.127	80	54
75	16	<b>723 960 112</b>	5	0.162	87	65
90	16	<b>723 960 113</b>	-	0.316	112	77
110	16	<b>723 960 114</b>	-	0.690	145	101
160	16	<b>723 960 117</b>	-	1.550	188	130

23 96 04

**Hose Nozzle, PVC-C**

d [mm]	PN	Code	SP	kg	D [mm]	L [mm]
16	16	<b>723 960 405</b>	10	0.009	16	57
20	16	<b>723 960 406</b>	10	0.016	20	73
25	16	<b>723 960 407</b>	10	0.023	25	79
32	16	<b>723 960 408</b>	10	0.038	30	89

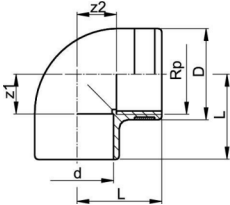
# Adaptor Fittings

23 10 02

## Elbows 90°, PVC-C

### Model:

- With BSP parallel female thread (Rp) reinforced (A2)
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-C
- Install with low mechanical stress and avoid large cyclic temperature changes



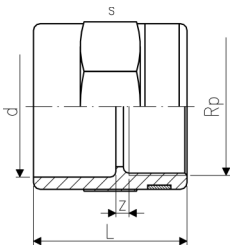
d [mm]	Rp [inch]	PN	Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L [mm]
20	1/2	16	<b>723 100 206</b>	-	0.024	11	14	30	27
25	3/4	16	<b>723 100 207</b>	10	0.037	14	17	35	33
32	1	16	<b>723 100 208</b>	-	0.064	17	22	45	39
40	1 1/4	16	<b>723 100 209</b>	-	0.134	23	27	55	50
50	1 1/2	16	<b>723 100 210</b>	-	0.200	27	36	62	58
63	2	16	<b>723 100 211</b>	-	0.376	33	46	75	73

23 91 02

## Socket, PVC-C

### Model:

- With solvent cement socket metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Do not use thread sealing pastes that are harmful to PVC-C
- Install with low mechanical stress and avoid large cyclic temperature changes



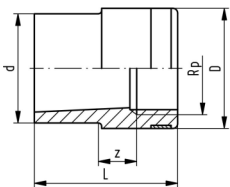
d [mm]	Rp [inch]	PN	Code	SP	kg	z [mm]	L [mm]	s [mm]
20	1/2	16	<b>723 910 206</b>	10	0.027	4	35	32
25	3/4	16	<b>723 910 207</b>	10	0.035	3	40	36
32	1	16	<b>723 910 208</b>	10	0.061	3	45	46
40	1 1/4	16	<b>723 910 209</b>	10	0.094	5	51	55
50	1 1/2	16	<b>723 910 210</b>	10	0.133	7	59	65
63	2	16	<b>723 910 211</b>	5	0.220	7	69	80

23 91 04

## Reducing Bushes metric-Rp, PVC-C

### Model:

- With solvent cement spigot metric and parallel female thread Rp
- Reinforcing ring stainless (A2)
- Connection to plastic or metal
- Install with low mechanical stress and avoid large cyclic temperature changes

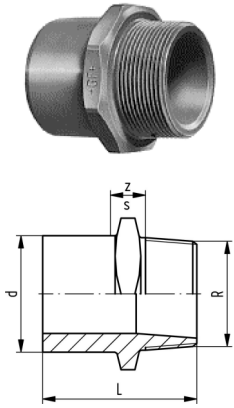


d [mm]	Rp [inch]	PN	Code	SP	kg	Z [mm]	D [mm]	L [mm]	s [mm]
20	3/8	16	<b>723 910 434</b>	10	0.016	24	25	35	15
25	1/2	16	<b>723 910 437</b>	10	0.023	27	30	41	21
32	3/4	16	<b>723 910 441</b>	10	0.035	32	35	48	33
40	1	16	<b>723 910 446</b>	10	0.064	38	45	56	60
50	1 1/4	16	<b>723 910 452</b>	10	0.105	46	55	66	99
63	1 1/2	16	<b>723 910 458</b>	5	0.153	57	62	77	150

23 91 05

**Adaptor Nipples, PVC-C****Model:**

- With solvent cement spigot metric and taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-C
- Install with low mechanical stress and avoid large cyclic temperature changes

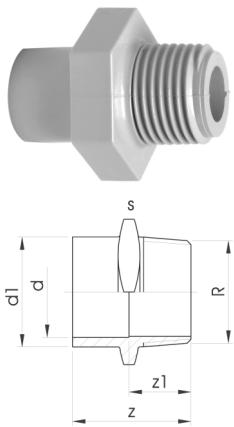


d [mm]	R [inch]	PN	Code	SP	kg	z [mm]	s [mm]	
16	¾	16	<b>723 910 505</b>	-	0.012	35	27	

23 91 05

**Adaptor Socket-Nipple, PVC-C****Model:**

- With solvent cement spigot/socket metric and taper male thread R
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-C
- Install with low mechanical stress and avoid large cyclic temperature changes



d [mm]	R [inch]	d1 [mm]	PN	Code	SP	kg	z [mm]	z1 [mm]	s [mm]	
16	½	20	16	<b>723 910 556</b>	10	0.018	42	28	32	
20	¾	25	16	<b>723 910 557</b>	10	0.026	47	31	36	
25	1	32	16	<b>723 910 558</b>	10	0.044	54	35	46	
32	1 ¼	40	16	<b>723 910 559</b>	10	0.072	60	38	55	
40	1 ½	50	16	<b>723 910 560</b>	10	0.101	66	40	65	
50	2	63	16	<b>723 910 561</b>	5	0.173	78	47	80	

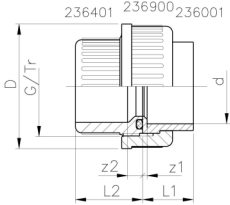
# Solvent Cement Unions

23 51 01

## Unions, PVC-C

### Model:

- Union end: Solvent cement socket metric
- Union bush: Solvent cement socket metric
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00



d [mm]	PN	EPDM Code	FPM Code	SP	kg	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G/Tr
16	16	<b>723 510 105</b>	<b>723 510 130</b>	-	0.027	3	8	35	19	24	3/4
20	16	<b>723 510 106</b>	<b>723 510 131</b>	-	0.044	3	9	43	21	26	1
25	16	<b>723 510 107</b>	<b>723 510 132</b>	-	0.072	3	9	53	24	29	1 1/4
32	16	<b>723 510 108</b>	<b>723 510 133</b>	-	0.098	3	9	60	27	32	1 1/2
40	16	<b>723 510 109</b>	<b>723 510 134</b>	-	0.167	3	10	74	32	38	2
50	16	<b>723 510 110</b>	<b>723 510 135</b>	-	0.098	3	10	83	33	40	2 1/4
63	16	<b>723 510 111</b>	<b>723 510 136</b>	-	0.400	3	10	103	40	46	2 3/4
75	10	<b>723 510 112</b>	<b>723 510 137</b>	-	0.670	3	18	135	47	62	Tr108x5
90	10	<b>723 510 113</b>	<b>723 510 138</b>	-	1.008	5	18	158	56	69	Tr128x5
110	10	<b>723 510 114</b>	<b>723 510 139</b>	-	1.553	5	11	188	66	72	Tr154x6

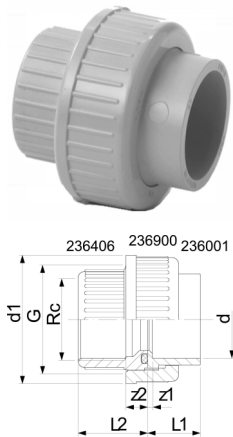
# Adaptor Unions

23 51 02

## Adaptor Unions, PVC-C metric-Rp

### Model:

- Union end: Solvent cement socket metric
- Union Bush: Parallel female thread Rp
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PVC-C



d [mm]	Rp [inch]	PN	EPDM Code	FPM Code	SP	kg
16	3/8	16	<b>723 510 205</b>	<b>723 510 230</b>	-	0.022
20	1/2	16	<b>723 510 206</b>	<b>723 510 231</b>	-	0.040
25	3/4	16	<b>723 510 207</b>	<b>723 510 232</b>	-	0.065
32	1	16	<b>723 510 208</b>	<b>723 510 233</b>	-	0.103
40	1 1/4	16	<b>723 510 209</b>	<b>723 510 234</b>	-	0.174
50	1 1/2	16	<b>723 510 210</b>	<b>723 510 235</b>	-	0.239
63	2	16	<b>723 510 211</b>	<b>723 510 236</b>	-	0.435

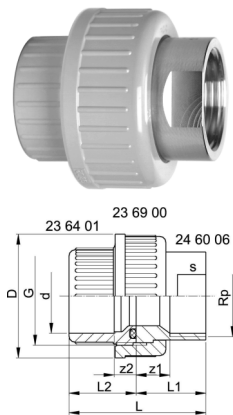
d [mm]	z1 [mm]	z2 [mm]	D [mm]	L1 [mm]	L2 [mm]	G [inch]
16	3	13	35	17	24	3/4
20	3	13	43	19	26	1
25	3	14	51	22	29	1 1/4
32	3	15	58	25	32	1 1/2
40	3	19	74	29	38	2
50	3	26	83	34	45	2 1/4
63	3	33	100	41	56	2 3/4

23 54 02

## Adaptor Unions, Stainless Steel / PVC-C metric - Rp

### Model:

- Union End: stainless steel WN 1.4404 (316L), parallel female thread Rp
- Union Bush: Solvent cement socket PVC-C metric
- Union nut: PVC-C
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00



d [mm]	Rp [inch]	PN	EPDM Code	FPM Code	SP	kg
16	3/8	16	<b>723 540 205</b>	<b>723 540 230</b>	-	0.053
20	1/2	16	<b>723 540 206</b>	<b>723 540 231</b>	-	0.096
25	3/4	16	<b>723 540 207</b>	<b>723 540 232</b>	-	0.154
32	1	16	<b>723 540 208</b>	<b>723 540 233</b>	-	0.212
40	1 1/4	16	<b>723 540 209</b>	<b>723 540 234</b>	-	0.356
50	1 1/2	16	<b>723 540 210</b>	<b>723 540 235</b>	-	0.455
63	2	16	<b>723 540 211</b>	<b>723 540 236</b>	-	0.721

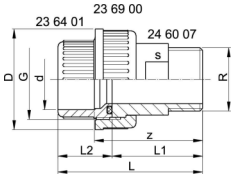
d [mm]	z1 [mm]	z2 [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	9	10	35	43	19	24	3/4	19
20	11	10	43	50	24	26	1	24
25	11	10	51	55	26	29	1 1/4	29
32	12	10	58	61	29	32	1 1/2	36
40	14	12	74	71	33	38	2	45
50	15	14	83	79	34	45	2 1/4	54
63	15	18	100	95	39	56	2 3/4	63

23 54 07

## Adaptor Unions, Stainless Steel / PVC-C metric - R

**Model:**

- Union End: stainless steel WN 1.4404 (316L), taper male thread R
- Union Bush: Solvent cement socket PVC-C metric
- Union nut: PVC-C
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00



d [mm]	R [inch]	PN	EPDM Code	FPM Code	SP	kg
16	3/8	16	<b>723 540 705</b>	<b>723 540 730</b>	-	0.073
20	1/2	16	<b>723 540 706</b>	<b>723 540 731</b>	-	0.126
25	3/4	16	<b>723 540 707</b>	<b>723 540 732</b>	-	0.174
32	1	16	<b>723 540 708</b>	<b>723 540 733</b>	-	0.262
40	1 1/4	16	<b>723 540 709</b>	<b>723 540 734</b>	-	0.476
50	1 1/2	16	<b>723 540 710</b>	<b>723 540 735</b>	-	0.535
63	2	16	<b>723 540 711</b>	<b>723 540 736</b>	-	0.931

d [mm]	z [mm]	D [mm]	L [mm]	L1 [mm]	L2 [mm]	G [inch]	s [mm]
16	40	35	54	30	24	3/4	19
20	44	43	60	34	26	1	24
25	46	51	65	36	29	1 1/4	32
32	50	58	72	40	32	1 1/2	37
40	58	74	84	46	38	2	48
50	62	83	93	48	45	2 1/4	54
63	73	100	111	55	56	2 3/4	69

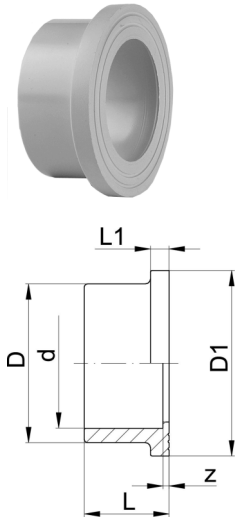
# Flange Adaptors

23 79 01

## Flange Adaptor (Serrated face), PVC-C

### Model:

- Jointing faces serrated
- Counterpart: Flange Adaptor No. 23 79 01
- Gasket: Flat gasket No. 48 40 01 EPDM or No.49 40 01 FPM
- Flange: No. 27 70 04, 27 70 02, 23 70 00
- d160 and d225 can be used as serrated or flat flange adaptor



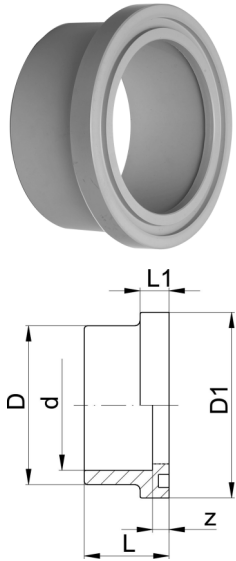
d [mm]	DN [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
20	15	16	<b>723 790 106</b>	10	0.012	3	27	34	21	6
25	20	16	<b>723 790 107</b>	-	0.018	3	33	41	24	7
32	25	16	<b>723 790 108</b>	10	0.026	3	41	50	27	7
40	32	16	<b>723 790 109</b>	-	0.044	3	50	61	30	8
50	40	16	<b>723 790 110</b>	-	0.060	3	61	73	34	8
63	50	16	<b>723 790 111</b>	-	0.106	3	76	90	41	9
75	65	16	<b>723 790 112</b>	-	0.167	3	91	106	47	10
90	80	16	<b>723 790 113</b>	-	0.271	5	108	125	56	11
110	100	16	<b>723 790 114</b>	-	0.432	5	131	150	66	12
160	150	16	<b>723 790 117</b>	-	1.200	5	188	213	91	16
200		10	<b>723 790 119</b>	-	1.630	6	224	250	112	24
225	200	10	<b>723 790 120</b>	-	1.900	6	248	274	125	25

23 81 01

## Flange Adaptor, with O-ring groove, PVC-C

### Model:

- Jointing Face: with O-Ring groove
- Counterpart: Flange Adaptor No. 23 79 01
- Gasket: O-ring EPDM No. 48 41 01, FPM No. 49 41 01
- Flange: No. 27 70 04, 27 70 02, 23 70 00



d [mm]	PN	Code	SP	kg	z [mm]	D [mm]	D1 [mm]	L [mm]	L1 [mm]
160	16	<b>723 810 117</b>	-	1.300	11	188	213	97	22
225	10	<b>723 810 120</b>	-	2.050	12	248	274	131	31



# Solvent Cement and Tools



## TANGIT PVC-C Solvent Cement Solvent cement tin

Code	SP	kg
799 298 027	-	0.700



## Tangit Cleaner

Model:

- For PVC-U, PVC-C, ABS
- 1 litre tin

Code	kg
799 298 010	0.900



## Cap for cement

- Cap prevents the evaporation of the solvent whilst using the Tangit cement

Code	kg
799 298 028	0.030



## Round Brushes

d-d [mm]		Code	kg
6 - 10	4 mm (for Fittings 6-10mm)	799 299 001	0.005
12 - 32	8 mm (for Fittings 12-32mm)	799 299 002	0.009



## Flat Brushes

d-d [mm]		Code	kg
40 - 63	25x3 mm (for Fittings 40-63mm)	799 299 003	0.015
75 - 225	50x5 mm (for Fittings 75-225mm)	799 299 004	0.026
250 - 400	75x6 mm (for Fittings 250-400mm)	799 299 005	0.045



## Chamfering Tool

Size	d-d [mm]	Code	kg
1	16 - 75	799 495 145	0.720
2	32 - 200	799 495 146	0.992



## PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

d-d [mm]	Article	Code	SP	kg	
10 - 63	PPC 63, s max. = 7,2mm	<b>790 109 001</b>	-	0.710	
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	-	1.400	
110 - 160	PPC 160, s max. = 19,0mm	<b>790 109 003</b>	-	1.880	



## Application Range

The PP-R AQUASYSTEM is particularly suitable for hot and cold water installation residential building, office, hotel, new installation and renovation.

The wide range of pipes and fittings, from 20 to 110 mm, is suitable for any kind of installation.

GF Piping Systems AQUASYSTEM is recommended for the following installations:

- **sanitary & plumbing**
- **heating**
- **air conditioning**
- **food industry**
- **compressed air**

## Outstanding features of the GF Piping Systems AQUASYSTEM

Some of the best advantages offered by the GF Piping Systems AQUASYSTEM®, in comparison with traditional systems, are as illustrated below:

### **Reduced installation time**

Compared with traditional systems, AQUASYSTEM® can grant a reduction in installation time of at least 30%.

### **Resistance to electrolysis**

The high resistivity of piping system (10 Ohm cm.) guarantees a very low electrical conductivity. The risk of PP-R pipe or fittings piercing due to stray currents is practically nothing.

Most chemical substances, which might be present in water or concrete, do not attack PP-R; in cases where special substances are being used, please contact Georg Fischer for advice.

### **Pipes and fitting pressure losses**

The inner surface of pipes and fittings have a very low frictional resistance, in comparison to traditional systems, thus making it possible to reduce the distribution pressure losses (see diagram on the following page).

### **No Scaling**

The reduction of the water flow normally occurs as a consequence of scaling (calcium carbonate) especially at high temperatures. PP-R pipes of the Georg Fischer system do not have scaling problems.

### **Low Thermal Conductivity**

The thermal conductivity of PP-R is very low, thus making it possible to reduce heat losses in the hot water supply and traditional heating systems.

This does not remove the statutory requirements for insulation on pipework, but can improve the effect of isolation.

### **Long Life**

The Georg Fischer piping system for hot and cold water services under pressure, is designed to guarantee over 50 years operation at pressure and temperature conditions listed in the following tables (regression curves).

### **Non-toxicity Safety**

All materials used in the Georg Fischer supply system, which are in contact with water, are certified as non-toxic and suitable for contact with drinking water (L102).

### **Resistance against abrasion**

Compared with traditional systems, AQUASYSTEM assures a very high resistance against abrasion granting in this way a long life.

### **Noise Reduction**

The material used has a high sound reduction index for absorbing sound waves and limiting the spread through pipes.

# AQUASYSTEM PP-R

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Electrofusion Socket	235
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## 4001

### Tubo PN20

### Pipe PN20

### Tube PN20

d x s	N° di codice	L (m)	imballo
20 x 3,4	760 840 002	3	90 mt
25 x 4,2	760 840 003	3	60 mt
32 x 5,4	760 840 004	3	45 mt
40 x 6,7	760 840 005	3	30 mt
50 x 8,4	760 840 006	3	15 mt
63 x 10,5	760 840 007	3	9 mt
75 x 12,5	760 840 008	3	9 mt
90 x 15,0	760 840 009	3	6 mt
110 x 18,4	760 840 010	3	6 mt



## 4002

### Tubo PN10

solo per acqua  
fredda

### Pipe PN10

cold water only

### Tube PN10

seulement pour  
l'eau froide

d x s	N° di codice	L (m)	imballo
20 x 1,9	760 840 012	3	90 mt
25 x 2,3	760 840 013	3	60 mt
32 x 3,0	760 840 014	3	45 mt
40 x 3,7	760 840 015	3	30 mt
50 x 4,6	760 840 016	3	15 mt
63 x 5,8	760 840 017	3	9 mt
75 x 6,9	760 840 018	3	9 mt
90 x 8,2	760 840 019	3	6 mt
110 x 10,0	760 840 020	3	6 mt



## 4301

### Tubo PP-R

con alluminio

### PP-R Pipe

with aluminium

### Tube en PP-R

avec aluminium

d x s	N° di codice	L (m)	imballo
20 x 2,8	760 840 902	4	100 mt
25 x 3,5	760 840 903	4	100 mt
32 x 4,4	760 840 904	4	40 mt
40 x 5,5	760 840 905	4	40 mt
50 x 6,9	760 840 906	4	20 mt
63 x 8,7	760 840 907	4	12 mt
75 x 10,3	760 840 908	4	12 mt
90 x 12,3	760 840 909	4	8 mt
110 x 15,1	760 840 910	4	4 mt



**4003**

Manicotto

Socket

Manchon

d	N° di codice	imballo
20	760 840 022	180
25	760 840 023	135
32	760 840 024	70
40	760 840 025	40
50	760 840 026	24
63	760 840 027	10
75	760 840 028	8
90	760 840 029	6
110	760 840 030	1

**4005**

Gomito 90°

90° Elbow

Coude 90°

d	N° di codice	imballo
20	760 840 032	140
25	760 840 033	80
32	760 840 034	50
40	760 840 035	25
50	760 840 036	12
63	760 840 037	8
75	760 840 038	4
90	760 840 039	2
110	760 840 040	1

**4007**

Gomito 90° M-F

90° M-F Elbow

Coude 90° M-F

d	N° di codice	imballo
20	760 840 042	140
25	760 840 047	80
32	760 840 048	50

**4009**

Gomito 45°

45° Elbow

Coude 45°

d	N° di codice	imballo
20	760 840 052	160
25	760 840 053	100
32	760 840 054	60
40	760 840 055	30
50	760 840 056	15
63	760 840 057	8
75	760 840 058	4
90	760 840 059	2
110	760 840 060	1



**4025**

Gomito 45° M-F  
 45° M-F Elbow  
 Coude 45° M-F

d	N° di codice	imballo
20	760 840 172	100

**4011**

Tee uguale  
 90° Tee  
 Té égal

d	N° di codice	imballo
20	760 840 062	100
25	760 840 063	60
32	760 840 064	30
40	760 840 065	15
50	760 840 066	10
63	760 840 067	4
75	760 840 068	4
90	760 840 069	2
110	760 840 070	1

**4013**

Tee ridotto  
 Reducing Tee  
 Té réduit

d	N° di codice	imballo
25-20-25	760 840 071	60
25-20-20	760 840 072	60
25-25-20	760 840 073	60
32-20-32	760 840 076	30
32-25-32	760 840 077	30
32-32-25	760 840 078	30
32-25-25	760 840 079	30
40-20-40	760 840 082	15
40-25-40	760 840 083	15
40-32-40	760 840 084	15
50-20-50	760 840 087	10
50-25-50	760 840 088	10
50-32-50	760 840 089	10
50-40-50	760 840 090	10
63-25-63	760 840 092	4
63-32-63	760 840 093	4
63-40-63	760 840 094	4
63-50-63	760 840 095	4
75-25-75	760 840 086	4
75-32-75	760 840 096	4
75-40-75	760 840 097	4
75-50-75	760 840 098	4
75-63-75	760 840 099	4
90-75-90	760 840 100	2





**4015**

Riduzione M-F

Reducing bush M-F

Réduction M-F

d	N° di codice	imballo
25-20	760 840 102	200
32-20	760 840 105	120
32-25	760 840 106	120
40-20	760 840 107	80
40-25	760 840 109	80
40-32	760 840 110	80
50-20	760 840 111	40
50-25	760 840 112	40
50-32	760 840 114	40
50-40	760 840 115	40
63-20	760 840 117	20
63-25	760 840 118	20
63-32	760 840 119	20
63-40	760 840 120	20
63-50	760 840 121	20
75-25	760 840 129	10
75-32	760 840 130	10
75-40	760 840 122	10
75-50	760 840 123	10
75-63	760 840 124	10
90-50	760 840 125	8
90-63	760 840 126	8
90-75	760 840 127	8
110-75	760 840 116	1
110-90	760 840 128	1

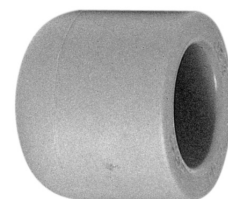
**4017**

Calotta

Cap

Bouchon femelle

d	N° di codice	imballo
20	760 840 132	240
25	760 840 133	200
32	760 840 134	100
40	760 840 135	60
50	760 840 136	30
63	760 840 137	20
75	760 840 138	8

**4019**

Curva di sorpasso

Swan neck

Dos d'âne

d	N° di codice	imballo
20	760 840 142	80
25	760 840 143	60
32	760 840 144	32

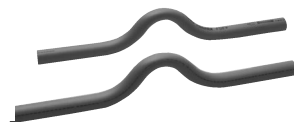
**4020**

Curva di sorpasso stretto

Narrow swan neck

Dos d'âne étroit

d	N° di codice	imballo
20	760 840 146	80



**4021**

Gomito 90° tre vie

Three-ways  
90° elbowCoude 90°trois  
voies

d	N° di codice	imballo
20-20-20	760 840 152	100

**4023**Curva ampio  
raggio

90° Bend

Courbe 90°

d	N° di codice	imballo
20	760.840.162	50
25	760.840.163	50

**4026**

Collettore

Manifold

Collecteur

d	N° di codice	imballo
40x 20	760 840 182	10
40x 1/2	760 840 186	10



4 uscite - 4 way - 4 voies

*Il collettore può essere accorciato e/o assemblato con altri collettori per polifusione*  
*The manifold can be shortened and assembled with different manifolds for welding*  
*Collecteur modulables*

**4027**Sella a saldare con  
codoloSaddle with  
spigot

Selle à souder

d	d1	N° di codice	imballo
40 - 20		760 840 190F	10
40 - 25		760 840 191F	10
50 - 20		760 840 192F	10
50 - 25		760 840 193F	10
63 - 20		760 840 194F	10
63 - 25		760 840 195F	10
63 - 32		760 840 196F	10
75 - 20		760 840 197F	10
75 - 25		760 840 198F	10
75 - 32		760 840 199F	10
90 - 20		760 840 220F	10
90 - 25		760 840 221F	10
90 - 32		760 840 222F	10
110 - 20		760 840 223F	10
110 - 25		760 840 224F	10
110 - 32		760 840 225F	10



**4092**

Sella filettata  
femmina con  
codolo

Threaded female  
saddle with  
spigot

Selle avec  
jonction fileté  
femelle

d	Rp	N° di codice	imballo
40	- 1/2"	760 840 764F	10
50	- 1/2"	760 840 766F	10
50	- 3/4"	760 840 767F	10
63	- 1/2"	760 840 768F	10
63	- 3/4"	760 840 769F	10
75	- 1/2"	760 840 770F	10
75	- 3/4"	760 840 771F	10
90	- 1/2"	760 840 773F	10
90	- 3/4"	760 840 774F	10
110	- 1/2"	760 840 776F	10
110	- 3/4"	760 840 777F	10

**4029**

Giunto filettato  
maschio

Threaded male  
coupling

Jonction pour tube

d	N° di codice	imballo
20- 1/2"	760 840 241	90
20- 3/4"	760 840 242	60
25- 1/2"	760 840 243	60
25- 3/4"	760 840 244	60
32- 3/4"	760 840 245	30
32- 1"	760 840 246	30
40- 1"	760 840 239	12
40- 1.1/4"	760 840 247	12
50- 1.1/2"	760 840 248	12
63- 2"	760 840 249	8
75- 2.1/2"	760 840 250	5
90- 3"	760 840 238	1

**4030**

Giunto filettato  
maschio con  
codolo

Threaded male  
coupling with  
spigot

Jonction fileté  
mâle à souder  
male

d	N° di codice	imballo
20- 1/2"	760 840 251	90
25- 1/2"	760 840 253	70
25- 3/4"	760 840 254	70
32- 3/4"	760 840 255	30
32- 1"	760 840 256	30
40- 1"	760 840 257	12

**4031**

Giunto filettato  
femmina

Threaded female  
coupling

Jonction fileté  
femelle pour tube

d	N° di codice	imballo
20- 1/2"	760 840 271	100
20- 3/4"	760 840 272	70
25- 1/2"	760 840 273	70
25- 3/4"	760 840 274	70
32- 3/4"	760 840 275	30
32- 1"	760 840 276	30
40- 1"	760 840 269	12
40- 1.1/4"	760 840 277	12
50- 1.1/2"	760 840 278	12
63- 2"	760 840 279	8
75- 2.1/2"	760 840 280	5



**4032**

Giunto filettato  
femmina per  
raccordo (codolo)

Threaded female  
coupling with  
spigot

Jonction fileté  
femelle à souder  
male

d	N° di codice	imballo
20- 1/2"	760 840 281	100
25- 1/2"	760 840 283	80
25- 3/4"	760 840 284	80
32- 3/4"	760 840 285	30
32- 1"	760 840 286	30
40- 1"	760 840 287	30

**4033**

Gomito 90°  
filettato maschio

Threaded male 90°  
elbow

Coude 90° fileté  
mâle

d	N° di codice	imballo
20- 1/2"	760 840 291	70
20- 3/4"	760 840 292	50
25- 1/2"	760 840 293	40
25- 3/4"	760 840 294	40
32- 3/4"	760 840 295	30
32- 1"	760 840 296	24

**4035**

Gomito 90°  
filettato femmina

Threaded female  
90° elbow

Coude 90° fileté  
femelle

d	N° di codice	imballo
20- 1/2"	760 840 301	80
20- 3/4"	760 840 302	50
25- 1/2"	760 840 303	70
25- 3/4"	760 840 304	40
32- 3/4"	760 840 305	40
32- 1"	760 840 306	24

**4036**

Gomito 90°  
filettato femmina  
con codolo

Threaded female  
90° elbow with  
spigot

Coude 90° fileté  
femelle a souder  
mâle

d	N° di codice	imballo
20- 1/2"	760 840 315	80



**4037**

Gomito 90°  
filettato maschio  
con staffa

Threaded male 90°  
elbow, with  
bracket

Coude 90° fileté  
mâle avec applique

d	N° di codice	imballo
20- 1/2"	760 840 321	60

**4039**

Gomito 90° filettato  
femmina con staffa

Threaded female  
90° elbow, with  
bracket

Coude 90° fileté  
femelle avec  
applique

d	N° di codice	imballo
20- 1/2"	760 840 331	70

**4041**

Tee filettato  
maschio

Threaded male tee

Té fileté mâle

d	N° di codice	imballo
20- 1/2"-20	760 840 341	60
20- 3/4"-20	760 840 342	50
25- 1/2"-25	760 840 343	40
25- 3/4"-25	760 840 344	40
32- 3/4"-32	760 840 345	24
32- 1" -32	760 840 346	18

**4043**

Tee filettato  
femmina

Threaded female  
tee

Té fileté femelle

d	N° di codice	imballo
20- 1/2"-20	760 840 351	70
20- 3/4"-20	760 840 352	50
25- 1/2"-25	760 840 353	40
25- 3/4"-25	760 840 354	40
32- 1/2"-32	760 840 360	24
32- 3/4"-32	760 840 355	24
32- 1" -32	760 840 356	18



**4045**

Bocchettone 90°  
a saldare

90° elbow for  
metal taper  
threaded

Coude 90° avec  
écrou mobile

d	N° di codice	imballo
20- 3/4"	760 840 362	70
25- 1"	760 840 365	40
32- 1.1/4"	760 840 367	24

**4047**

Bocchettone diritto  
a saldare

Adaptor union for  
metal taper  
threaded

Jonction avec  
écrou mobile

d	N° di codice	imballo
20- 3/4"	760 840 372	60
25- 1"	760 840 375	40
32- 1.1/4"	760 840 377	18
40- 1.1/2"	760 840 379	10
50- 2"	760 840 380	10

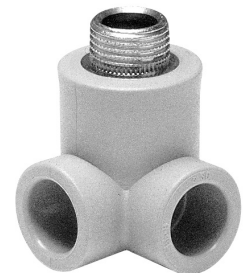
**4048**

Gomito 90° a tre  
vie filettato  
maschio

Three-ways  
threaded male 90°  
elbow

Coude 90° à trois  
voies fileté mâle

d	N° di codice	imballo
20- 1/2"	760 840 382	70

**4049**

Gomito 90° a tre  
vie filettato  
femmina

Three-ways  
threaded female  
90° elbow

Coude 90° à trois  
voies fileté femelle

d	N° di codice	imballo
20- 1/2"	760 840 392	80



## 4086

Bocchettone  
femmina fil  
maschio

Adaptor union  
socket male  
threaded

Raccord  
démontable 3  
pièces à souder  
femelle - fileté  
male

d	N° di codice	imballo
25- 3/4"	760 840 702	20
32- 1"	760 840 703	10
40- 1.1/4"	760 840 704	10
50- 1.1/2"	760 840 705	5
63- 2"	760 840 706	4



## 4088

Bocchettone a  
saldare f/f

Adaptor union  
socket-socket

Raccord  
démontable 3  
pièces à souder  
femelle-femelle

d	N° di codice	imballo
25	760 840 732	20
32	760 840 733	10
40	760 840 734	10
50	760 840 735	5
63	760 840 736	4



**4050**

Cartella  
Flange adaptor  
Collets

d	N° di codice		imballo
25	760 840 414		50
32	760 840 415		30
40	760 840 416		20
50	760 840 417		10
63	760 840 418		10
75	760 840 419		10
90	760 840 420		8
110	760 840 421		1

**5085**

Flangia libera  
Backing flange  
Bride

d	N° di codice		imballo
25	727 700 407	1	1
32	727 700 408	1	1
40	727 700 409	1	1
50	727 700 410	1	1
63	727 700 411	1	1
75	727 700 412	1	1
90	727 700 413	1	1
110	727 700 414	1	1

**5087**

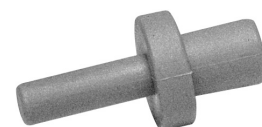
Guarnizione in EPDM  
EPDM Flange seal  
Joint plat EPDM

d	N° di codice		imballo
25	761 066 330		5
32	761 066 331		5
40	761 066 332		5
50	761 066 333		5
63	761 066 334		5
75	761 066 315		1
90	761 066 316		1
110	761 066 317		1

**4053**

Riparafori  
Repairing hole plug  
Bouchon de réparation

d	N° di codice		imballo
7.5-1 1/4"	760 840 425		20

**4055**

Rubinetto a vitone completo  
Complet stop cock tap  
Robinet complet

d	N° di codice		imballo
20	760 840 462		16
25	760 840 463		16
32	760 840 464		16





## 4055

Rubinetto a vitone  
Stop cock tap  
Robinet

d	N° di codice	imballo
20	760 840 432	16
25	760 840 433	16
32	760 840 434	16



Maniglia per  
rubinetto a vitone  
Handle for cock  
Poignée pour  
robinet

20/25/32

760 840 436

10



Prolunga per  
vitone  
Extention  
Rallonge pour  
poigne

20/25/32

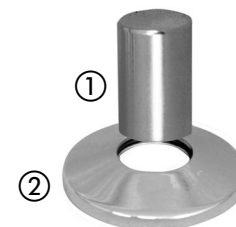
760 840 438

10



Canotto ①  
Covering tube  
Tube

760 840 430



Rosone ②  
Covering plate  
Rosette

760 840 431

Componenti  
vitone ③  
Stop cock  
components  
Pieces pour  
composer le  
robinet

20/25  
32

760 840 437  
760 840 439

40  
40



Corpo rubinetto ④  
Body stop cock  
Corps de robinet

20  
25  
32

760 840 426  
760 840 427  
760 840 428

40  
40  
40



**4056**

Valvola a sfera  
Ball valve  
Robinets à bille

d	N° di codice	imballo
20	760 840 444	16
25	760 840 445	16



Canotto/Rosone  
Covering tube and plate  
Tube a rosette

	760 840 443	4
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Valvola a sfera con maniglia  
Ball valve with handle  
Robinets à bille avec poignée

20	760 840 447	16
25	760 840 448	16



Maniglia e rosone  
Handle and covering plate  
Poignée a rosette

	760 840 451	4
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Kit di prolunga  
Extension kit  
Kit rallonge

20/25	760 840 450	1
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**4096**

Valvola a sfera con maniglia  
Ball valve with handle  
Robinet à bille avec poignée

d	N° di codice	imballo
20	760 840 792	25
25	760 840 793	20
32	760 840 794	15
40	760 840 795	8
50	760 840 796	6
63	760 840 797	3



## 4061

Manicotto elettrico

Electric socket

Manchon  
électrique

d	N° di codice	imballo
20	760 840 452	10
25	760 840 453	10
32	760 840 454	10
40	760 840 455	5
50	760 840 456	2
63	760 840 457	1
75	760 840 458	1
90	760 840 459	1
110	760 840 460	1



## 4083

Saldatrice per  
elettrofusione

Electrofusion  
welding machine

Appareil à  
electrosouder

d	N° di codice	imballo
	760 840 680	1



- alimentazione 220V - 50 Hz    - input voltage 220 V - 50 Hz    - alimentation 220V - 50 Hz  
- tensione uscita variabile: <48 V    - voltage: <48 V    - tension: <48 V  
- potenza: 1200 Watt    - electrical power: 1200 Watt    - puissance: 1200 Watt

Accessorio a richiesta: allineatore per elettrosaldatura

On request: positioning tool for electrofusion

À la demande: positionneur pour electrosouder

## Raschiatubo

Pipe scraping tool

Racloir pour tubes

d	N° di codice	imballo
	799 198 RM4	



## 4105

Polifusore  
con cavalletto

Standard socket  
welder with  
trestle

Appareil de  
polyfusion  
standard,  
avec support

d	N° di codice	Mod.	imballo
16-63	760 840 518	PF63R	1
16-63	760 840 519	PF63E	1
16-63	760 840 518S	PF63S	1



PF63R    Polifusore elettromeccanico 700W - 230V  
PF63R    Electromechanical socket welder 700W - 230V  
PF63R    Polifuseur 700W - 230V  
PF63E    Polifusore elettronico 700W - 230V  
PF63E    Electronic socket welder 700W - 230V  
PF63E    Polifuseur electronique 700W - 230V  
PF63S    Polifusore elettromeccanico 700W - 48V  
PF63S    Electromechanical socket welder 700W - 48V  
PF63S    Polifuseur 700W - 48V

## 4108

Polifusore senza cavalletto

Standard socket welder without trestle

Appareil de polyfusion standard, sans support

d	N° di codice	Mod.	
16/110	760 840 521	PF110R	

1500W - 230V - matrici escluse - dies excluded - sans doilles

## 4110

Supporto da banco

Bench-holder

Support d'établi

d	N° di codice	Mod.	
	760 840 524	PF63R PF63E PF63S	



## 4118

Valigetta

Suitcase

Coffret

d	N° di codice		
	760 840 533		



per/for/pour PF63R, PF63E, PF63S

## 4124

Polifusore completo

Complete socket welder

Appareil de polyfusion complet

d	N° di codice	Mod.	
20-25-32	760 840 540	VALPF63	



Polifusore con termostato elettromeccanico PE63R, 700 Watt- 230 Volt  
• Electromechanical socket welder PE63R, 700 Watt- 230 Volt  
• Handschweissgerät mit elektronischem Temperaturregler PE63R, 700 Watt- 230 Volt

- Matrice 20 - 25 - 32
- Heating tools 20 - 25 - 32
- Jeu de douilles 20 - 25 - 32

- Cavalletto a forcelle
- Fork holder
- Support d'établi

- Valigetta di contenimento
- Empty box
- Coffret

## 4134

Saldatrice  
elettronica da  
banco

Electronic bench  
socket welding  
machine

Etabli de soudage  
à regulation  
electronique

d	N° di codice	Mod.	imballo
20/110	760 840 660	PB660	1
20/110	760 840 660S	PB660S	1

Set di matrici - Set of heating tools - Jeu de douilles

	760 840 560		
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Cassa legno - Box packaging - Caisse d'emballage

	760 840 559		
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*PB660 con polifusore elettronico 1200W - 230V*

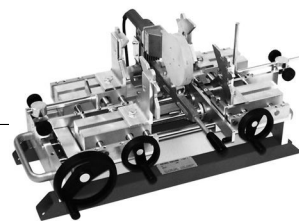
*PB660 1200W - 230V with electronic socket welder*

*PB660 polifuseur electronique 1200W - 230V*

*PB660 con polifusore termostatico 1200W - 230V*

*PB660 1200W - 230V with electromechanical socket welder*

*PB660 polifuseur 1200W - 230V*



## 4145

Coppia di matrici  
m/f

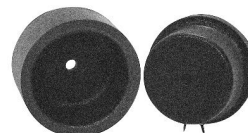
Set of heating tools  
for welder

Jeu de douilles  
M-F

d	N° di codice		imballo
20	760 840 562		1
25	760 840 563		1
32	760 840 564		1
40	760 840 565		1
50	760 840 566		1
63	760 840 567		1
75	760 840 568		1
90	760 840 569		1
110	760 840 570		1

Riparatori m-f / Hole mender / Dovilles de réparation m-f

7.5	760 840 481		1
11.4	760 840 482		1



## 4145

Matrici per selle  
con codolo

Heating tools for  
saddle with spigot

Jeu de douilles  
pour selles

d	N° di codice		imballo
40-20-25-1/2	760 840 585F		1
50-20-25-1/2	760 840 586F		1
63-20-25-1/2	760 840 587F		1
75-20-25-1/2	760 840 588F		1
90-20-25-1/2	760 840 589F		1
110-20-25-1/2	760 840 590F		1
50-32-3/4	760 840 592F		1
63-32-3/4	760 840 593F		1
75-32-3/4	760 840 594F		1
90-32-3/4	760 840 595F		1
110-32-3/4	760 840 596F		1

Fresa per selle con codolo

Milling cutter for saddles with spigot

Fraise pour selle

20-25-1/2	760 840 600F		1
32-3/4	760 840 601F		1



**5310**

Matite per  
controllo  
temperatura  
Thermostatic  
pencil  
Crayons  
pyrométriques

temp	N° di codice	imballo
253°C	799 496 008	1
274°C	799 496 009	1

**Cronometro**

Timer  
Minitaur

d	N° di codice	imballo
	761 066 798	

**4073**

Cesoia tagliatubo  
Cutting nippers  
Cisaille coupe-tube

d	N° di codice	imballo
20-32	760 840 484	1
20-75	760 840 486	1

**4047**

Tagliatubo  
Pipe cutter  
Coupe-tube

d	N° di codice	imballo
20- 75	760 840 505	1
50-110	760 840 506	1

**4185**

Alesatori per tubi  
in PP-R ALU  
Chamfering tool  
for PP-R pipes  
with aluminium  
Alésoir pour les  
tubes en PP-R  
avec aluminium

d	N° di codice	imballo
20	760 840 822	1
25	760 840 823	1
32	760 840 824	1
40	760 840 825	1
50	760 840 826	1
63	760 840 827	1
75	760 840 828	1
90	760 840 829	1
110	760 840 830	1



## 4058

Tappo prova  
impianto

Plant test plug

Bouchon pour  
essais  
d'installations

d	N° di codice		imballo
1/2"	760 840 512	blu blue bleu	100
1/2"	760 840 513	rosso red rouge	100



## 27.060.000

Supporto per tubo\*

Pipe clamp

Colliers

Segue sconto listino PVC

d	N° di codice		imballo
20	167 061 036		10
25	167 061 037		10
32	167 061 038		10
40	167 061 039		10
50	167 061 040		10
63	167 061 041		10
75	167 061 012		10
90	167 061 013		10
110	167 061 014		10



### Versione beige

20	700 244 496		10
25	700 244 497		10
32	700 244 498		10

### Consegne

I prodotti elencati nel presente listino sono generalmente disponibili presso il nostro magazzino.

Gli ordini sono pertanto evadibili in 5 giorni lavorativi dalla data di ricezione.

Vi preghiamo **in ogni caso** di contattare il nostro servizio commerciale per ottenere indicazioni più precise sulla disponibilità e consegna dei singoli articoli.

### Delivery

The listed products in this price list are generally available at our warehouse.

The order can be therefore dispatched in 5 working days from the date of receipt.

Please take contact with our commercial department for binding delivery terms.

### Livraison

Les produits dans cette liste des prix sont en générale disponibles, et pourtant, prêtes pour être expédiées dans 5 jours de travail. Veuillez s'il vous plaît prendre contact avec notre bureau commercial.

In fase di ordine rispettare il quantitativo della confezione indicato nella colonna „imballo” del presente listino

When you order please take care of the standard packaging quantity shown in column „Imballo”

La quantité ordonnable doit respecter l'emballage standard indiqué dans la colonne „Imballo”

d	s (spessore tubo)	N° di codice	imballo	Euro	a richiesta
dimension dimension	pipe thickness épaisseur du tujau	code n° de code	packing emballage		on request sur demande

## Norme e direttive




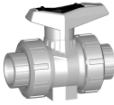




<b>UNI EN ISO 15874</b>	Sistemi di tubazioni in materia plastica per installazioni di acqua calda e fredda - Polipropilene (PP)
<b>DIN 8077</b>	Tubi in PP - dimensioni
<b>DIN 8078</b>	Tubi in PP - requisiti di qualità
<b>DIN 16962</b>	Raccordi e tubazioni in PP per condotte in pressione
<b>DIN 1988</b>	Norme per impianti di acqua potabile
<b>DIN 2999</b>	Raccordi con inserto metallico filettato
<b>DIN 4109</b>	Norme per l'insonorizzazione delle tubazioni
<b>DIN 8076</b>	Raccordi con inserto metallico
<b>DVS 2207</b>	Norme di saldatura per materiale termoplastico
<b>DVS 2208</b>	Macchine ed apparecchi per la saldatura di materiali termoplastici
<b>DIN 16887</b>	Determinazione del comportamento a lungo termine a pressione
<b>DM 174</b>	Circolare Ministeriale

## Certificazioni sul sistema AQUASYSTEM

<b>AENOR</b>	Asociación Española de Normalización y Certificación (Spain). Certificado N° 001/002282	
<b>LNEC</b>	Laboratório Nacional de Engenharia Civil. Departamento de Materiais de Construção (Portugal). DH 602	
<b>KIWA</b>	Certification and Inspection (Holland). K 12023/02/03	
<b>CSTB</b>	Hydraulique & Équipements Sanitaires (France). ATEC 14/04 - 899 CSTBat 73/74 - 899	
<b>RINA</b>	Registro Italiano Navale (Italy). N° MAC 288004 CS	
<b>Lloyd's Register</b>	LR Type Approval Certificate n° 01/00100	
<b>AR</b>	Comisia de Agreement Tehnic in Constructii (Rumania). 002 - 05/137 - 1998	
	Ministry of Electricity & Water (Kuwait). 211-1998	
<b>ABS</b>	Certificate of design assessment n° 04-GE428472-PDA, 15/10/2004	
<b>NSF</b>	N° 0J540-01, 25/07/2002	
<b>DNV</b>	Type approval certificate n° K-2688, 14/03/2005	
<b>Germanischer Lloyd</b>	Type approval certificate n° 43348 - 02 HH	



# Ball valves / Butterfly valves

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	Butterfly valves ABS	257
	Butterfly valves PVC-U	259
	Butterfly valves PVC-C	261

# Ball valves PP-H

## Ball valve type 370 PP-H With backing flanges PP-V metric



### Model:

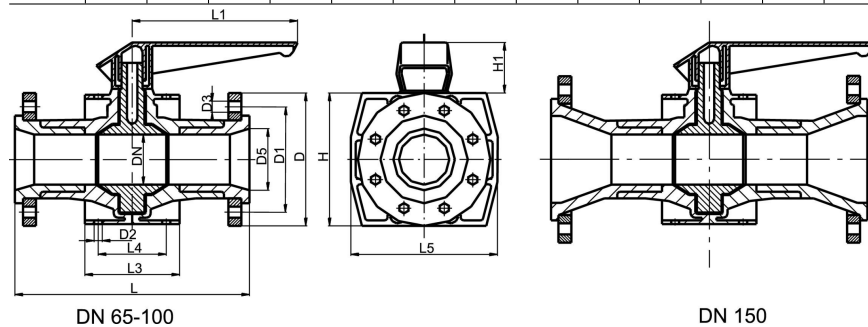
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- For easy installation and removal
- Jointing face flat
- Overall length EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

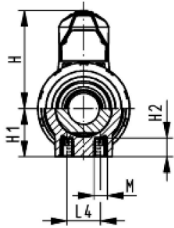
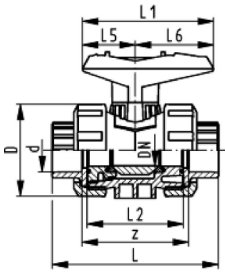
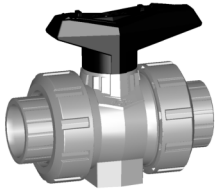
### Note:

- Product will be replaced by type 546 DN65-100 in the 4. quarter 2006.

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	<b>167 370 112</b>	<b>167 370 137</b>	3.905
90	80	3	10	7000	<b>167 370 113</b>	<b>167 370 138</b>	5.900
110	100	4	10	11000	<b>167 370 114</b>	<b>167 370 139</b>	9.200
160	100	6	10	16000	<b>167 370 116</b>	<b>167 370 141</b>	10.800

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D5 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	L5 [mm]
75	185	145	10	19	68	148	76	290	205	102	84	160
90	200	160	10	19	81	176	75	310	205	120	102	188
110	220	180	12	19	100	223	77	350	250	152	122	225
160	285	240	12	23	155	223	77	480	250	152	122	225





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

### Model:

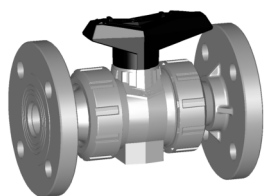
- For easy installation and removal
- z-dimension, valve end and valve nut are **not compatible** with type 346
- Ball seals PTFE
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see form)
- 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	<b>167 546 401</b>	<b>167 546 411</b>	0.115
20	15	10	185	<b>167 546 402</b>	<b>167 546 412</b>	0.115
25	20	10	350	<b>167 546 403</b>	<b>167 546 413</b>	0.180
32	25	10	700	<b>167 546 404</b>	<b>167 546 414</b>	0.255
40	32	10	1000	<b>167 546 405</b>	<b>167 546 415</b>	0.440
50	40	10	1600	<b>167 546 406</b>	<b>167 546 416</b>	0.610
63	50	10	3100	<b>167 546 407</b>	<b>167 546 417</b>	1.145

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



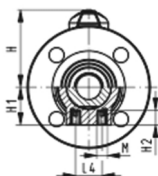
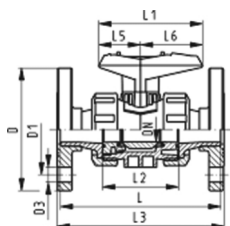
## Ball valve type 546 PP-H With mounting inserts With fixed flanges PP-H serrated metric

### Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are **not compatible** with type 346
- Ball seals PTFE
- Integrated stainless steel mounting inserts
- Overall length EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

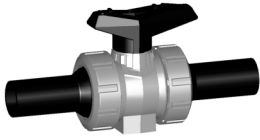
### Option:

- Individual configuration of the valve (see form)
- 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	1/2	10	185	<b>167 546 182</b>	<b>167 546 192</b>	0.245
25	20	3/4	10	350	<b>167 546 183</b>	<b>167 546 193</b>	0.345
32	25	1	10	700	<b>167 546 184</b>	<b>167 546 194</b>	0.495
40	32	1 1/4	10	1000	<b>167 546 185</b>	<b>167 546 195</b>	0.830
50	40	1 1/2	10	1600	<b>167 546 186</b>	<b>167 546 196</b>	1.100
63	50	2	10	3100	<b>167 546 187</b>	<b>167 546 197</b>	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



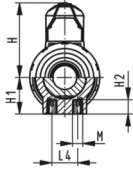
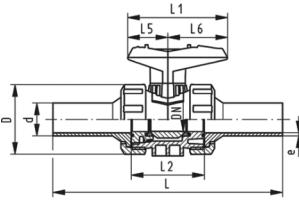
## Ball valve type 546 PP-H With mounting inserts With butt fusion spigots long PE 100 SDR11 metric

### Model:

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

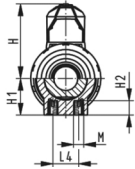
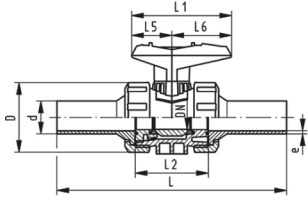
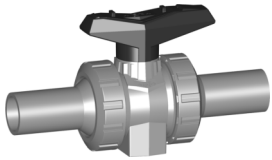
### Option:

- Individual configuration of the valve (see form)
- 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	<b>167 546 282</b>	<b>167 546 292</b>	0.130
25	20	10	350	<b>167 546 283</b>	<b>167 546 293</b>	0.195
32	25	10	700	<b>167 546 284</b>	<b>167 546 294</b>	0.280
40	32	10	1000	<b>167 546 285</b>	<b>167 546 295</b>	0.485
50	40	10	1600	<b>167 546 286</b>	<b>167 546 296</b>	0.695
63	50	10	3100	<b>167 546 287</b>	<b>167 546 297</b>	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	3
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



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

### Model:

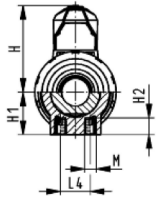
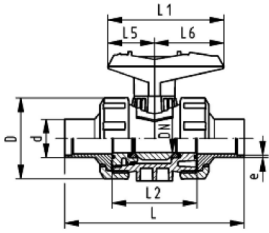
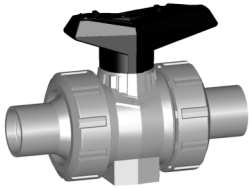
- For easy installation and removal
- z-dimension, valve end and valve nut are **not compatible** with type 346
- Ball seals PTFE
- Integrated stainless steel mounting inserts

### Option:

- Individual configuration of the valve (see form)
- 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	<b>167 546 262</b>	<b>167 546 272</b>	0.130
25	20	10	350	<b>167 546 263</b>	<b>167 546 273</b>	0.195
32	25	10	700	<b>167 546 264</b>	<b>167 546 274</b>	0.280
40	32	10	1000	<b>167 546 265</b>	<b>167 546 275</b>	0.480
50	40	10	1600	<b>167 546 266</b>	<b>167 546 276</b>	0.700
63	50	10	3100	<b>167 546 267</b>	<b>167 546 277</b>	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	3
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



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

### Model:

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

### Option:

- Individual configuration of the valve (see form)
- 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	<b>167 546 066</b>	<b>167 546 076</b>	0.635							
63	50	6	3100	<b>167 546 067</b>	<b>167 546 077</b>	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	

# Ball valves ABS

## Ball valve type 370 ABS

### Unions with solvent cement sockets metric



#### Model:

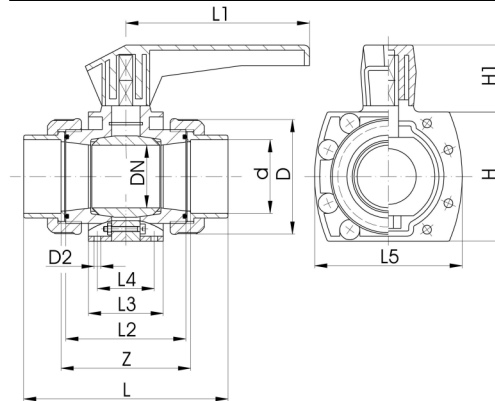
- For easy installation and removal
- Pneumatic or electric actuator available separately
- Minimum temperature: - 40°C

#### Note:

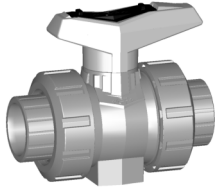
- Product will be replaced by type 546 DN65-100 in the 4. quarter 2006.

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
75	65	2 ½	10	5000	<b>169 370 008</b>	2.385
90	80		10	7000	<b>169 370 009</b>	3.510
110	100		10	11000	<b>169 370 010</b>	6.738

d [mm]	z [mm]	D [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]
75	145	135	10	233	205	139	90	72	160	148	74
90	165	158	10	267	205	155	104	88	188	176	74
110	196	188	12	318	250	186	128	104	225	223	78







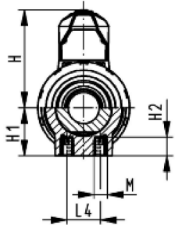
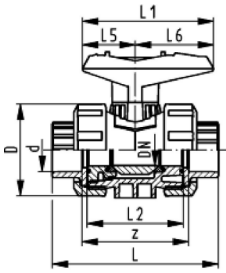
## Ball valve type 546 ABS With mounting inserts With solvent cement sockets metric

### Model:

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

### Option:

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

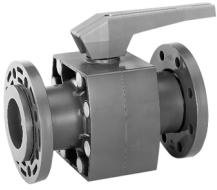


d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
16	10	10	71	<b>169 546 061</b>	0.112
20	15	10	185	<b>169 546 062</b>	0.114
25	20	10	350	<b>169 546 063</b>	0.178
32	25	10	700	<b>169 546 064</b>	0.258
40	32	10	1000	<b>169 546 065</b>	0.457
50	40	10	1600	<b>169 546 066</b>	0.642
63	50	10	3100	<b>169 546 067</b>	1.175

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	92	77	56	25	32	45	M6	64
20	50	57	27	12	95	77	56	25	32	45	M6	64
25	58	67	30	12	110	97	65	25	39	58	M6	72
32	68	73	36	12	123	97	71	25	39	58	M6	79
40	84	90	44	15	146	128	85	45	54	74	M8	94
50	97	97	51	15	157	128	89	45	54	74	M8	95
63	124	116	64	15	183	152	101	45	66	87	M8	107

# Ball valves PVC-U

## Ball valve type 370 PVC-U With PP-V flanges metric



### Model:

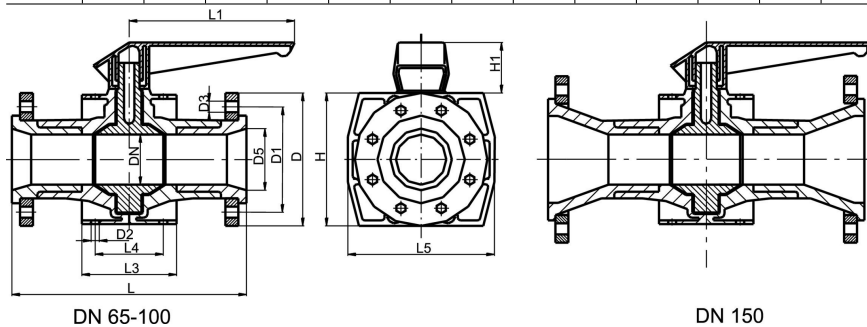
- Ball seals PTFE
- Pneumatic or electric actuator available separately
- For easy installation and removal
- Jointing face flat
- Overall length EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Note:

- Product will be replaced by type 546 DN65-100 in the 4. quarter 2006.

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	161 370 112	161 370 137	4.800
90	80	3	10	7000	161 370 113	161 370 138	6.400
110	100	4	10	11000	161 370 114	161 370 139	10.500
160	100	6	10	16000	161 370 116	161 370 141	12.200

d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D5 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]
75	185	145	10	18	68	290	205	102	84	160	148	74
90	200	160	10	18	82	310	205	120	102	188	176	74
110	220	180	12	18	102	350	250	152	122	225	223	78
160	285	240	12	22	156	480	250	152	122	225	223	78





## Ball valve type 370 PVC-U With solvent cement sockets metric

### Model:

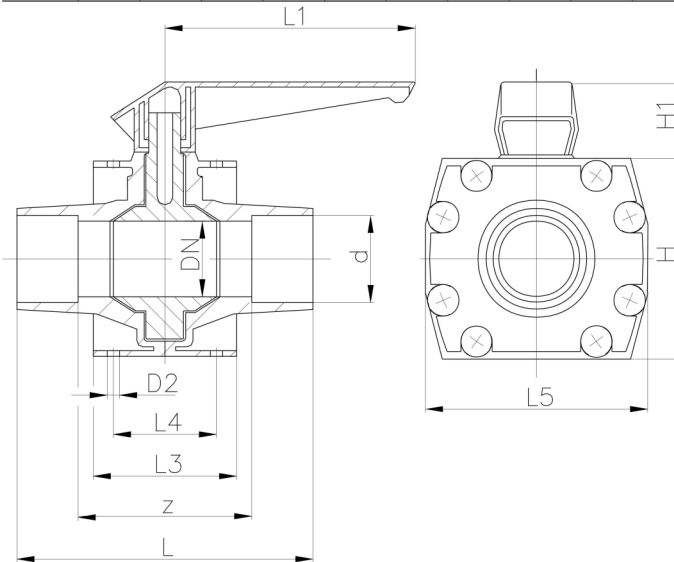
- Ball seals PTFE
- Pneumatic or electric actuator available separately

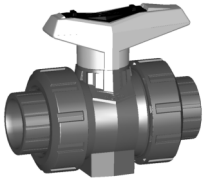
### Note:

- Product will be replaced by type 546 DN65-100 in the 4. quarter 2006.

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	161 370 212	161 370 237	2.700
90	80		10	7000	161 370 213	161 370 238	3.800
110	100		10	11000	161 370 214	161 370 239	7.300

d [mm]	z [mm]	D2 [mm]	L [mm]	L1 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	H [mm]	H1 [mm]
75	124	10	208	205	102	84	160	148	74
90	146	10	244	205	120	102	188	176	74
110	158	12	274	250	152	122	225	223	78





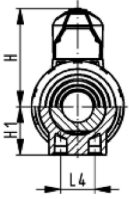
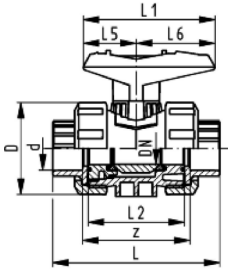
## Ball valve type 546 PVC-U With solvent cement sockets metric

### Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are **not compatible** with type 346
- Ball seals PTFE
- Without mounting inserts

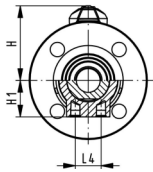
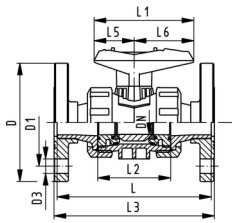
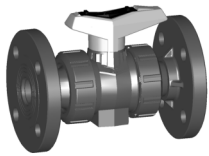
### Option:

- Individual configuration of the valve (see form)
- 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	16	71	<b>161 546 001</b>	<b>161 546 011</b>	0.150	
20	15	16	185	<b>161 546 002</b>	<b>161 546 012</b>	0.150	
25	20	16	350	<b>161 546 003</b>	<b>161 546 013</b>	0.230	
32	25	16	700	<b>161 546 004</b>	<b>161 546 014</b>	0.330	
40	32	16	1000	<b>161 546 005</b>	<b>161 546 015</b>	0.600	
50	40	16	1600	<b>161 546 006</b>	<b>161 546 016</b>	0.800	
63	50	16	3100	<b>161 546 007</b>	<b>161 546 017</b>	1.460	

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	92	77	56	25	32	45	64	
20	50	57	27	95	77	56	25	32	45	64	
25	58	67	30	110	97	65	25	39	58	72	
32	68	73	36	123	97	71	25	39	58	79	
40	84	90	44	146	128	85	45	54	74	94	
50	97	97	51	157	128	89	45	54	74	95	
63	124	116	64	183	152	101	45	66	87	107	



## Ball valve type 546 PVC-U With PVC-U fixed flanges serrated metric

### Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are **not compatible** with type 346
- Ball seals PTFE
- Without mounting inserts
- Overall length according to EN 558-1
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10

### Option:

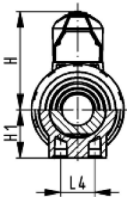
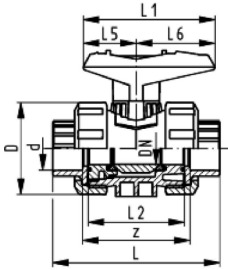
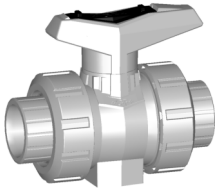
- Individual configuration of the valve (see form)
- Multifunctional module with integrated limit switches
- Pneumatic or electric actuators from +GF+

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	16	185	<b>800 000 182</b>	<b>800 000 192</b>	0.370
25	20	16	350	<b>800 000 183</b>	<b>800 000 193</b>	0.510
32	25	16	700	<b>800 000 184</b>	<b>800 000 194</b>	0.740
40	32	16	1000	<b>800 000 185</b>	<b>800 000 195</b>	1.230
50	40	16	1600	<b>800 000 186</b>	<b>800 000 196</b>	1.610
63	50	16	3100	<b>800 000 187</b>	<b>800 000 197</b>	2.710

d [mm]	D [mm]	D1 [mm]	D3 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	95	65	14	57	27	124	77	56	130	25	32	45
25	105	75	14	67	30	144	97	65	150	25	39	58
32	115	85	14	73	36	154	97	71	160	25	39	58
40	140	100	18	90	44	174	128	85	180	45	54	74
50	150	110	18	97	51	194	128	89	200	45	54	74
63	165	125	18	116	64	224	152	101	230	45	66	87

# Ball valves PVC-C

## Ball valve type 546 PVC-C With solvent cement sockets metric



### Model:

- For easy installation and removal
- z-dimension, valve end and valve nut are **not compatible** with type 346
- Ball seals PTFE
- Without mounting inserts

### Option:

- Individual configuration of the valve (see form)
- 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	16	71	<b>163 546 001</b>	<b>163 546 011</b>	0.160	
20	15	16	185	<b>163 546 002</b>	<b>163 546 012</b>	0.160	
25	20	16	350	<b>163 546 003</b>	<b>163 546 013</b>	0.245	
32	25	16	700	<b>163 546 004</b>	<b>163 546 014</b>	0.365	
40	32	16	1000	<b>163 546 005</b>	<b>163 546 015</b>	0.660	
50	40	16	1600	<b>163 546 006</b>	<b>163 546 016</b>	0.890	
63	50	16	3100	<b>163 546 007</b>	<b>163 546 017</b>	1.650	

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	92	77	56	25	32	45	64	
20	50	57	27	95	77	56	25	32	45	64	
25	58	67	30	110	97	65	25	39	58	72	
32	68	73	36	123	97	71	25	39	58	79	
40	84	90	44	146	128	85	45	54	74	94	
50	97	97	51	157	128	89	45	54	74	95	
63	124	116	64	183	152	101	45	66	87	107	

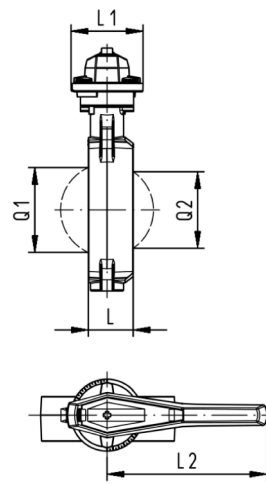
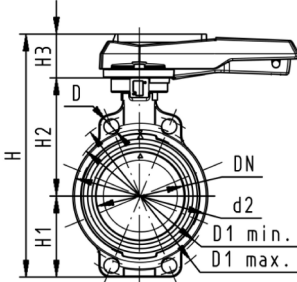
# Butterfly valves PP-H

## Butterfly valve type 567 PP-H Hand lever with ratchet settings



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, 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	<b>167 567 002</b>	<b>167 567 022</b>	0.969
75	65	2 ½	10	2200	<b>167 567 003</b>	<b>167 567 023</b>	1.061
90	80	3	10	3000	<b>167 567 004</b>	<b>167 567 024</b>	1.191
110	100	4	10	6500	<b>167 567 005</b>	<b>167 567 025</b>	1.751
140	125	5	10	11500	<b>167 567 006</b>	<b>167 567 026</b>	2.199
160	150	6	10	16600	<b>167 567 007</b>	<b>167 567 027</b>	2.989
225	200	8	10	39600	<b>167 567 008</b>	<b>167 567 028</b>	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

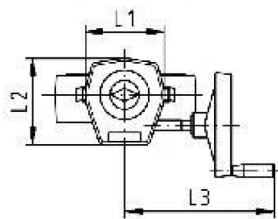
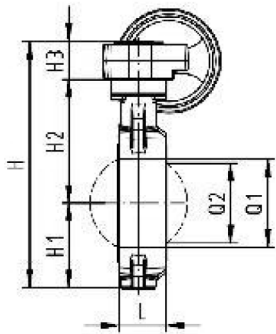
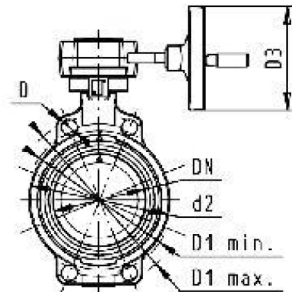


## Butterfly valve type 567 PP-H Reduction gear with handwheel



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, 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	<b>167 567 042</b>	<b>167 567 062</b>	3.007
75	65	2 ½	10	2200	<b>167 567 043</b>	<b>167 567 063</b>	3.099
90	80	3	10	3000	<b>167 567 044</b>	<b>167 567 064</b>	3.229
110	100	4	10	6500	<b>167 567 045</b>	<b>167 567 065</b>	3.741
140	125	5	10	11500	<b>167 567 046</b>	<b>167 567 066</b>	4.189
160	150	6	10	16600	<b>167 567 047</b>	<b>167 567 067</b>	4.979
225	200	8	10	39600	<b>167 567 048</b>	<b>167 567 068</b>	6.159

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	19	120.0	125.0	104	160	278	77	134	68	45	120	132	236	40
75	19	139.7	145.0	115	160	291	83	140	68	46	120	132	236	54
90	19	150.0	160.0	131	160	303	89	146	68	49	120	132	236	67
110	19	175.0	190.5	160	160	339	104	167	68	56	120	132	236	88
140	23	210.0	215.9	187	160	365	117	181	68	64	120	132	236	113
160	24	241.3	241.3	215	160	387	130	189	68	72	120	132	236	139
225	23	290.0	295.0	267	160	436	158	210	68	73	120	132	236	178

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



# Butterfly valves ABS

## Butterfly valve type 567 ABS Hand lever with ratchet settings

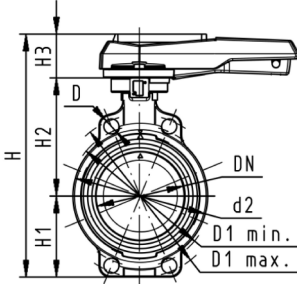


### Model:

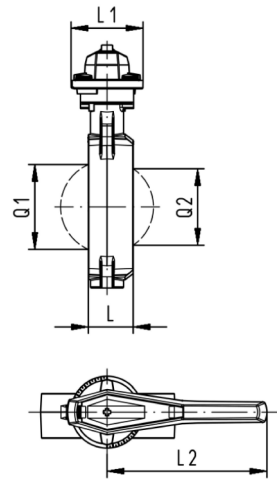
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, ISO 5752

### Note:

- \* Available on request



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
*63	50	2	10	1470	<b>169 567 002</b>	1.400
*75	65	2 ½	10	2200	<b>169 567 003</b>	1.150
90	80	3	10	3000	<b>169 567 004</b>	1.221
110	100	4	10	6500	<b>169 567 005</b>	1.805
*140	125	5	10	11500	<b>169 567 006</b>	
160	150	6	10	16600	<b>169 567 007</b>	3.128
225	200	8	10	39600	<b>169 567 008</b>	4.936



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	36	
*75	19	139.7	145.0	115	277	83	140	54	46	106	205	51	31
90	19	150.0	160.0	131	289	89	146	54	49	106	205	64	46
110	19	175.0	190.5	161	325	104	167	55	56	106	255	84	70
*140	23	210.0	215.9	187	352	117	181	55	64	106	255	111	95
160	24	241.3	241.3	215	373	130	189	55	72	106	255	136	122
225	23	290.0	295.0	267	435	158	210	67	73	140	408	176	166



## Butterfly valve type 567 ABS Reduction gear with handwheel

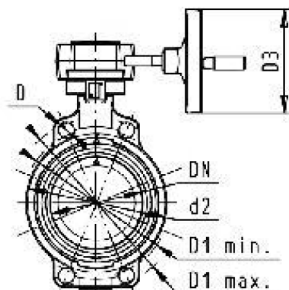


### Model:

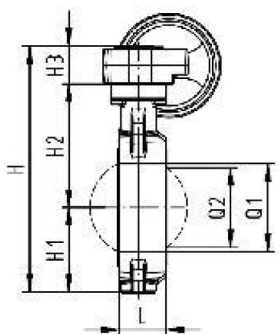
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, ISO 5752

### Note:

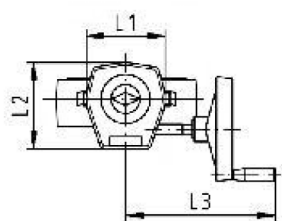
- \* Available on request



d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	kg
*63	50	2	10	1470	<b>169 567 022</b>	3.259
*75	65	2 ½	10	2200	<b>169 567 023</b>	
90	80	3	10	3000	<b>169 567 024</b>	3.795
110	100	4	10	6500	<b>169 567 025</b>	5.118
*140	125	5	10	11500	<b>169 567 026</b>	
160	150	6	10	16600	<b>169 567 027</b>	6.389
225	200	8	10	39600	<b>169 567 028</b>	



d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
*63	19	120.0	125.0	104	160	278	77	134	68	45	120	132	236
*75	19	139.7	145.0	115	160	291	83	140	68	46	120	132	236
90	19	150.0	160.0	131	160	303	89	146	68	49	120	132	236
110	19	175.0	190.5	160	160	339	104	167	68	56	120	132	236
*140	23	210.0	215.9	187	160	365	117	181	68	64	120	132	236
160	24	241.3	241.3	215	160	387	130	189	68	72	120	132	236
225	23	290.0	295.0	267	160	436	158	210	68	73	120	132	236



d [mm]	Q1 [mm]	Q2 [mm]
*63	36	
*75	51	31
90	64	46
110	84	70
*140	111	94
160	136	122
225	176	166

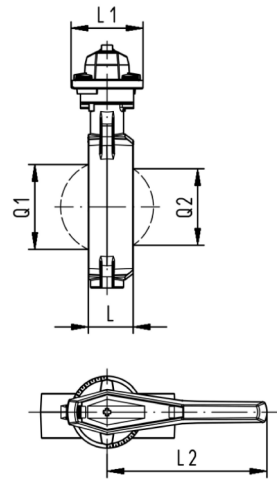
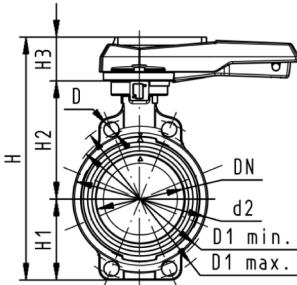
# Butterfly valves PVC-U

## Butterfly valve type 567 PVC-U Hand lever with ratchet settings



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, 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	<b>161 567 002</b>	<b>161 567 022</b>	1.044
75	65	2 ½	10	2200	<b>161 567 003</b>	<b>161 567 023</b>	1.148
90	80	3	10	3000	<b>161 567 004</b>	<b>161 567 024</b>	1.315
110	100	4	10	6500	<b>161 567 005</b>	<b>161 567 025</b>	1.983
140	125	5	10	11500	<b>161 567 006</b>	<b>161 567 026</b>	2.554
160	150	6	10	16600	<b>161 567 007</b>	<b>161 567 027</b>	3.564
225	200	8	10	39600	<b>161 567 008</b>	<b>161 567 028</b>	5.541

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

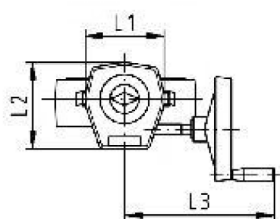
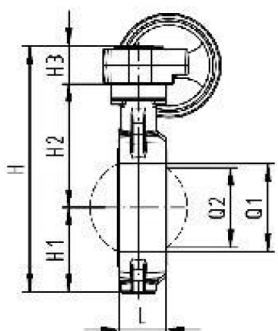
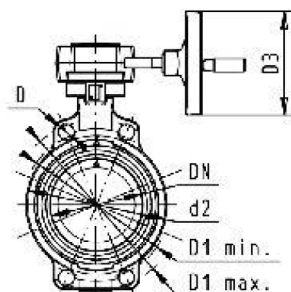


# Butterfly valve type 567 PVC-U Reduction gear with handwheel



### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, 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	<b>161 567 042</b>	<b>161 567 062</b>	3.082
75	65	2 ½	10	2200	<b>161 567 043</b>	<b>161 567 063</b>	3.186
90	80	3	10	3000	<b>161 567 044</b>	<b>161 567 064</b>	3.353
110	100	4	10	6500	<b>161 567 045</b>	<b>161 567 065</b>	3.973
140	125	5	10	11500	<b>161 567 046</b>	<b>161 567 066</b>	4.544
160	150	6	10	16600	<b>161 567 047</b>	<b>161 567 067</b>	5.554
225	200	8	10	39600	<b>161 567 048</b>	<b>161 567 068</b>	6.994

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Q1 [mm]
63	19	120.0	125.0	104	160	278	77	134	68	45	120	132	236	40
75	19	139.7	145.0	115	160	291	83	140	68	46	120	132	236	54
90	19	150.0	160.0	131	160	303	89	146	68	49	120	132	236	67
110	19	175.0	190.5	160	160	339	104	167	68	56	120	132	236	88
140	23	210.0	215.9	187	160	365	117	181	68	64	120	132	236	113
160	24	241.3	241.3	215	160	387	130	189	68	72	120	132	236	139
225	23	290.0	295.0	267	160	436	158	210	68	73	120	132	236	178

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

# Butterfly valves PVC-C

## Butterfly valve type 567 PVC-C Hand lever with ratchet settings

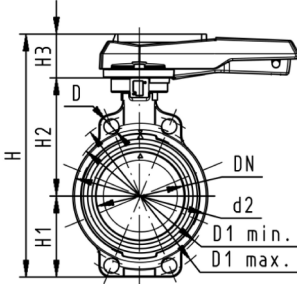


### Model:

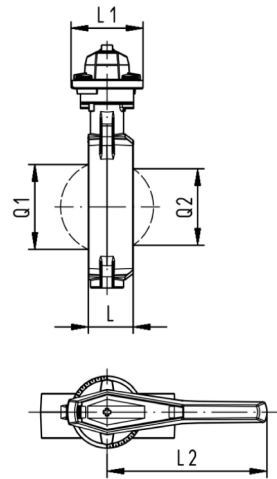
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, ISO 5752

### Note:

- \* Available 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	<b>163 567 002</b>	<b>163 567 022</b>	
75	65	2 ½	10	2200	<b>163 567 003</b>	<b>163 567 023</b>	1.174
90	80	3	10	3000	<b>163 567 004</b>	<b>163 567 024</b>	1.353
110	100	4	10	6500	<b>163 567 005</b>	<b>163 567 025</b>	2.043
*140	125	5	10	11500	<b>163 567 006</b>	<b>163 567 026</b>	
160	150	6	10	16600	<b>163 567 007</b>	<b>163 567 027</b>	3.634
225	200	8	10	39600	<b>163 567 008</b>	<b>163 567 028</b>	5.901



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	35
75	19	139.7	145.0	115	277	83	140	54	46	106	205	54	50
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



## Butterfly valve type 567 PVC-C Reduction gear with handwheel

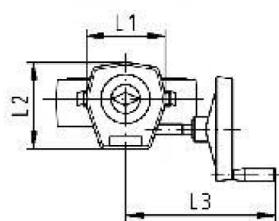
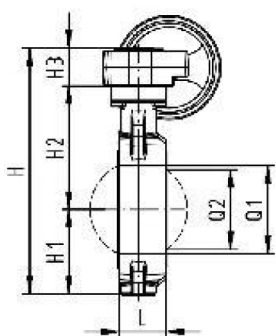
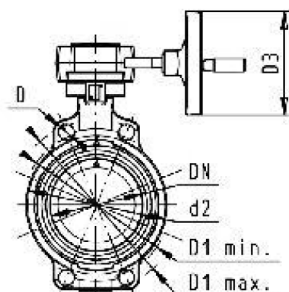


### Model:

- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
- Overall length according to EN 558-1, ISO 5752

### Note:

- \* Available 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	<b>163 567 042</b>	<b>163 567 062</b>	
75	65	2 ½	10	2200	<b>163 567 043</b>	<b>163 567 063</b>	3.212
90	80	3	10	3000	<b>163 567 044</b>	<b>163 567 064</b>	3.391
110	100	4	10	6500	<b>163 567 045</b>	<b>163 567 065</b>	4.033
*140	125	5	10	11500	<b>163 567 046</b>	<b>163 567 066</b>	
160	150	6	10	16600	<b>163 567 047</b>	<b>163 567 067</b>	5.624
225	200	8	10	39600	<b>163 567 048</b>	<b>163 567 068</b>	7.354

d [mm]	D [mm]	D1 min. [mm]	D1 max. [mm]	d2 [mm]	D3 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]
*63	19	120.0	125.0	104	160	278	77	134	68	45	120	132	236
75	19	139.7	145.0	115	160	291	83	140	68	46	120	132	236
90	19	150.0	160.0	131	160	303	89	146	68	49	120	132	236
110	19	175.0	190.5	160	160	339	104	167	68	56	120	132	236
*140	23	210.0	215.9	187	160	365	117	181	68	64	120	132	236
160	24	241.3	241.3	215	160	387	130	189	68	72	120	132	236
225	23	290.0	295.0	267	160	436	158	210	68	73	120	132	236

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



# Flange connections/unions

## Connection: plastic/plastic

O-ring sealing unions or flange connections should be used in principle for detachable connection of plastic pipes or adaptors between plastic pipes and metal pipes or metal fittings (valves, pumps).

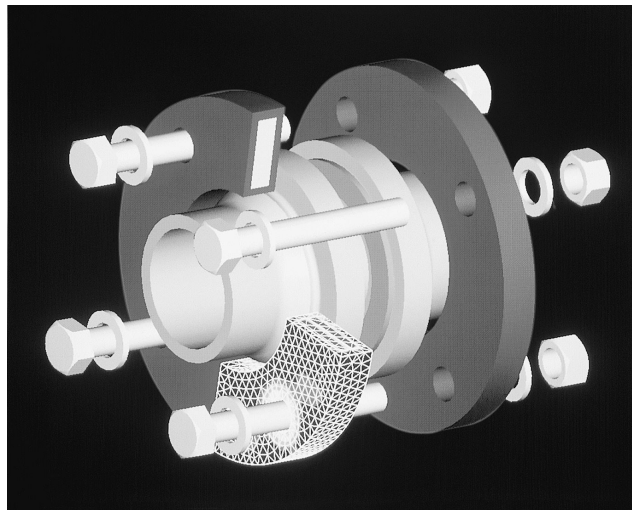
- Unions up to d 63
- Flange connections up to d 110

High screw tightening forces are not required for making flange connections with O-rings. It is recommended to use torque wrenches to prevent excessive tightening of screws.

Nominal values for the screw fixing of flange connections with O-Ring:

Pipe external diameter	mm	16	20	25	32	40	50	63	75	90	110
Torque	Nm	3	3	4	5	10	12	15	18	20	22

Bigger Diameter Torque on request



Commercially available screws, nuts, washers

Washers should be used in general

## Connection: plastic/metal

- Flange seals (see next pages) are normally used in flange connections for the transition from plastic to metal, since the jointing faces of the metal flange are usually serrated.
- The screws should also be tightened with a torque wrench for flange







connections with flange seals, in order to prevent damage to flanges or flange adaptors. The table below shows nominal values of torques required for the various pipe diameters.

Pipe external diameter	mm	16	20	25	32	40	50	63	75	90	110
Nominal internal diameter DN	mm	10	15	20	25	32	40	50	65	80	100
Torque	Nm	6	7	9	10	20	25	30	35	40	45

Bigger Diameter Torque on request



# Accessories

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	Fixed Flange PVC-U JIS	273
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	Pipe Clips metric	278

# Backing Flanges PVC-U

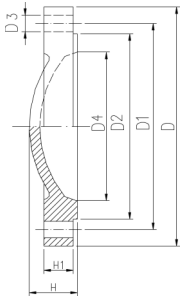
21 70 05

## Blanking Flanges, PVC-U Jointing face serrated, metric

### Model:

- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10
- **d63 to d160: combined jointing face (serrated and flat)**

\* Combined Flange, connecting dimensions DIN 2501 PN 10 and ANSI B 16.5



d [mm]	DN [mm]	Inch	PN	Code	kg
*20	15	1/2	10	<b>721 700 506</b>	0.075
*25	20	3/4	10	<b>721 700 507</b>	0.097
*32	25	1	10	<b>721 700 508</b>	0.145
*40	32	1 1/4	10	<b>721 700 509</b>	0.225
*50	40	1 1/2	10	<b>721 700 510</b>	0.280
*63	50	2	10	<b>721 700 511</b>	0.380
*75	65	2 1/2	10	<b>721 700 512</b>	0.535
*90	80	3	10	<b>721 700 513</b>	0.670
*110	100	4	10	<b>721 700 514</b>	0.875
*140	125	5	10	<b>721 700 516</b>	1.315
*160	150	6	10	<b>721 700 517</b>	1.730
225	200	8	10	<b>721 700 520</b>	2.600
250	250	10	10	<b>721 700 521</b>	3.300
280	250	10	10	<b>721 700 522</b>	4.650
315	300	12	6	<b>721 700 523</b>	5.750
355	350	14	6	<b>721 700 524</b>	6.800
400	400	16	6	<b>721 700 525</b>	9.000

d [mm]	D [mm]	D1 [mm]	D1 min. [mm]	D1 max. [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	AL
*20	95		61.0	63.0	34	16	15	15	12	4
*25	105		70.0	73.0	41	16	20	16	13	4
*32	115		79.0	83.0	50	16	25	19	15	4
*40	140		91.0	100.0	61	18	34	20	16	4
*50	150		101.0	110.0	74	18	44	22	17	4
*63	165		121.0	124.0	91	19	57	25	20	4
*75	185		140.0	145.0	106	22	69	29	21	4
*90	200		152.0	160.0	125	22	82	32	22	8
*110	220		180.0	191.0	150	24	102	36	24	8
*140	250	215			184	23	120	41	28	8
*160	285	240			212	23	152	45	30	8
225	340	295			273	22	213	63	36	8
250	370	325			303	22	238	63	36	8
280	395	350			328	22	266	65	36	12
315	445	400			378	22	299	65	36	12
355	505	460			430	22	341	67	38	16
400	565	515			482	26	384	71	42	16

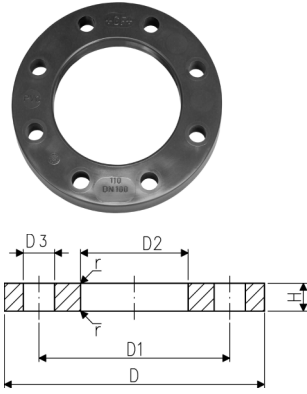
21 70 00

## Backing Flanges, PVC-U metric

### Model:

- For socket systems
- Connecting dimension: ISO 7005 PN10, EN 1092 PN 10, DIN 2501 PN10

### \* Connecting dimension: ISO 2536



d [mm]	DN [mm]	Inch	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	r [mm]	AL	SC
16	10	3/8	10	<b>721 700 005</b>	0.055	90	60	23	14	10	1	4	M12
20	15	1/2	10	<b>721 700 006</b>	0.069	95	65	28	14	11	1	4	M12
25	20	3/4	10	<b>721 700 007</b>	0.092	105	75	34	14	12	2	4	M12
32	25	1	10	<b>721 700 008</b>	0.132	115	85	42	14	14	2	4	M12
40	32	1 1/4	10	<b>721 700 009</b>	0.194	140	100	51	18	15	2	4	M16
50	40	1 1/2	10	<b>721 700 010</b>	0.245	150	110	62	18	16	2	4	M16
63	50	2	10	<b>721 700 011</b>	0.311	165	125	78	18	18	3	4	M16
75	65	2 1/2	10	<b>721 700 012</b>	0.375	185	145	92	18	19	3	4	M16
90	80	3	10	<b>721 700 013</b>	0.471	200	160	110	18	20	3	8	M16
110	100	4	10	<b>721 700 014</b>	0.554	220	180	133	18	22	3	8	M16
125	125	4 1/2	10	<b>721 700 015</b>	0.995	250	210	150	18	26	5	8	M16
140	125	5	10	<b>721 700 016</b>	0.746	250	210	167	18	26	4	8	M16
160	150	6	10	<b>721 700 017</b>	1.016	285	240	190	22	28	4	8	M20
200	200	7	10	<b>721 700 019</b>	1.658	340	295	226	22	32	4	8	M20
225	200	8	10	<b>721 700 020</b>	1.380	340	295	250	22	32	4	8	M20
250	250	9	6	<b>721 700 021</b>	1.700	395	350	277	22	36	4	12	M20
*250	225	9	6	<b>721 700 136</b>	1.700	370	325	277	22	36	4	8	M20
280	250	10	6	<b>721 700 137</b>	1.730	395	350	310	22	36	4	12	M20
315	300	12	6	<b>721 700 138</b>	2.350	445	400	348	22	36	4	12	M20
355	350	14	6	<b>721 700 139</b>	3.400	505	460	388	22	38	5	16	M20
400	400	16	6	<b>721 700 140</b>	4.500	565	515	442	26	42	5	16	M24

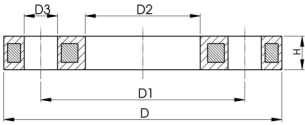
# Backing Flanges, PP/Steel

27 70 02  
27 70 03

## Backing Flanges, PP/Steel for Butt Fusion Systems metric

### Model:

- Material: PP (30 % glass-fibre reinforced) with steel ring
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504



d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	<b>727 700 206</b>	95				12	4	M12
25	20	16	<b>727 700 207</b>	105				12	4	M12
32	25	16	<b>727 700 208</b>	115				16	4	M12
40	32	16	<b>727 700 209</b>	140				16	4	M16
50	40	16	<b>727 700 210</b>	150				18	4	M16
63	50	16	<b>727 700 211</b>	165				18	4	M16
75	65	16	<b>727 700 212</b>	185				18	4	M16
90	80	16	<b>727 700 313</b>	200	160	108	18	20	8	M16
110	100	16	<b>727 700 314</b>	220	180	128	18	20	8	M16
125	100	16	<b>727 700 315</b>	220	180	135	18	20	8	M16
140	125	16	<b>727 700 316</b>	250	210	158	18	24	8	M16
160	150	16	<b>727 700 317</b>	285	240	178	22	24	8	M20
180	150	16	<b>727 700 318</b>	285	240	188	22	24	8	M20
200	200	16	<b>727 700 319</b>	340	295	235	22	27	8	M20
225	200	16	<b>727 700 320</b>	340	295	238	22	27	8	M20
250	250	16	<b>727 700 321</b>	395	350	288	22	30	12	M20
280	250	16	<b>727 700 322</b>	395	350	294	22	30	12	M20
315	300	16	<b>727 700 323</b>	445	400	338	22	34	12	M20
355	350	16	<b>727 700 324</b>	515	460	376	23	40	16	M20
400	400	16	<b>727 700 325</b>	574	515	430	26	40	16	M24

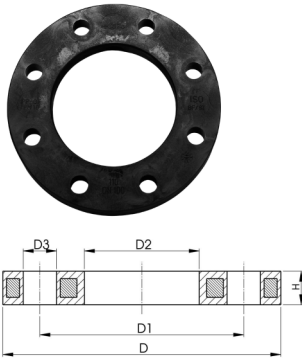
27 70 02

## Backing Flanges, PP/Steel for Socket Systems metric

### Model:

- PP-GF (30% glass-fibre reinforced) with steel ring
- Connecting dimensions: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10

### \* Connecting dimension: ISO 2536



d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	<b>727 700 206</b>	95	65	28	14	12	4	M12
25	20	16	<b>727 700 207</b>	105	75	34	14	12	4	M12
32	25	16	<b>727 700 208</b>	115	85	42	14	16	4	M12
40	32	16	<b>727 700 209</b>	140	100	51	18	16	4	M16
50	40	16	<b>727 700 210</b>	150	110	62	18	18	4	M16
63	50	16	<b>727 700 211</b>	165	125	78	18	18	4	M16
75	65	16	<b>727 700 212</b>	185	145	92	18	18	4	M16
90	80	16	<b>727 700 213</b>	200	160	110	18	20	8	M16
110	100	16	<b>727 700 214</b>	220	180	133	18	20	8	M16
125	100	16	<b>727 700 215</b>	250	210	150	18	24	8	M16
140	125	16	<b>727 700 216</b>	250	210	167	18	24	8	M16
160	150	16	<b>727 700 217</b>	285	240	190	22	24	8	M20
200	200	16	<b>727 700 219</b>	340	295	226	22	27	8	M20
225	200	16	<b>727 700 220</b>	340	295	250	22	27	8	M20
250	250	16	<b>727 700 021</b>	395	350	277	22	30	12	M20
*250	250	16	<b>727 700 221</b>	395	325	277	22	30	8	M20
280	250	16	<b>727 700 222</b>	395	350	310	22	30	12	M20
315	300	16	<b>727 700 223</b>	445	400	348	22	34	12	M20
355	350	16	<b>727 700 224</b>	515	460	388	23	40	16	M20
400	400	16	<b>727 700 225</b>	574	515	442	26	40	16	M24

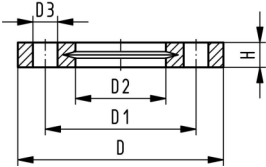
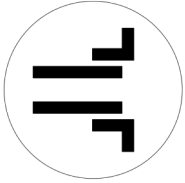
# Backing Flange, PP-V

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
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10



<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)

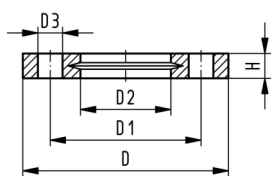
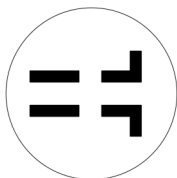
d [mm]	DN [mm]	PN	Code	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
20	15	16	<b>727 700 406</b>	95	65	28	14	16	4	M12
25	20	16	<b>727 700 407</b>	105	75	34	14	17	4	M12
32	25	16	<b>727 700 408</b>	115	85	42	14	18	4	M12
40	32	16	<b>727 700 409</b>	140	100	51	18	20	4	M16
50	40	16	<b>727 700 410</b>	150	110	62	18	22	4	M16
63	50	16	<b>727 700 411</b>	165	125	78	18	24	4	M16
75	65	16	<b>727 700 412</b>	185	145	92	18	26	4	M16
90	80	16	<b>727 700 413</b>	200	160	110	18	27	8	M16
110	100	16	<b>727 700 414</b>	220	180	133	18	28	8	M16
140	125	16	<b>727 700 416</b>	250	210	167	18	30	8	M16
160	150	16	<b>727 700 417</b>	285	241	190	22	32	8	M20
200	200	16	<b>727 700 419</b>	340	296	226	22	34	8	M20
225	200	16	<b>727 700 420</b>	340	295	250	22	34	8	M20
250	250	16	<b>727 700 421</b>	395	350	277	22	38	12	M20
280	250	16	<b>727 700 422</b>	395	350	310	22	38	12	M20
315	300	16	<b>727 700 423</b>	445	400	348	22	42	12	M20

27 70 04  
27 70 05

## Backing Flanges, 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
- Connecting dimension: ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, BS 4504 PN 10



<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)

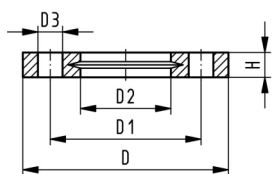
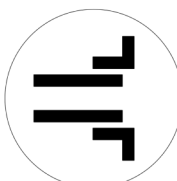
d	DN	PN	Code	SP	D	D1	D2	D3	H	AL	SC
[mm]	[mm]				[mm]	[mm]	[mm]	[mm]	[mm]		
120	15	16	727 700 406	-	95	65	28	14	16	4	M12
125	20	16	727 700 407	-	105	75	34	14	17	4	M12
132	25	16	727 700 408	-	115	85	42	14	18	4	M12
140	32	16	727 700 409	-	140	100	51	18	20	4	M16
150	40	16	727 700 410	-	150	110	62	18	22	4	M16
163	50	16	727 700 411	-	165	125	78	18	24	4	M16
175	65	16	727 700 412	-	185	145	92	18	26	4	M16
190	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	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	200	16	727 700 519	-	340	295	235	22	34	8	M20
225	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 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
- Connection dimensions according to ANSI B 16.5, ASTM D 4024; bolt circle class 150



<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)

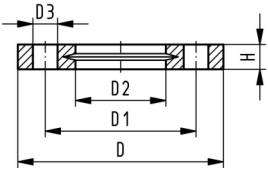
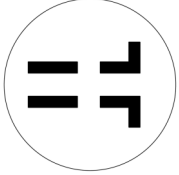
Inch	d	DN	PN	Code	kg	D	D1	D2	D3	H	AL	SC
	[mm]	[mm]				[mm]	[mm]	[mm]	[mm]	[mm]		
1/2		15	16	727 701 406	0.080	95	60	28	16	16	4	M12
3/4		20	16	727 701 407	0.100	105	70	34	16	17	4	M12
1		25	16	727 701 408	0.140	115	79	42	16	18	4	M12
1 1/4		32	16	727 701 409	0.220	140	89	51	16	20	4	M16
1 1/2		40	16	727 701 410	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
		160	16	727 700 417	1.200	285	241	190	22	32	8	M20
		225	200	727 700 420	1.400	340	295	250	22	34	8	M20
10		250	16	727 701 422	1.700	406	362	310	26	38	12	M20
12		300	16	727 701 423	2.400	483	432	348	26	42	12	M20

27 70 14  
27 70 15

## Backing Flanges, 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
- Connection dimensions according to ANSI B 16.5, ASTM D 4024; bolt circle class 150



<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)

Inch	d [mm]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
1/2		15	16	<b>727 701 406</b>	0.080	95	60	28	16	16	4	M12
3/4		20	16	<b>727 701 407</b>	0.100	105	70	34	16	17	4	M12
1		25	16	<b>727 701 408</b>	0.140	115	79	42	16	18	4	M12
1 1/4		32	16	<b>727 701 409</b>	0.220	140	89	51	16	20	4	M16
1 1/2		40	16	<b>727 701 410</b>	0.210	150	98	62	16	22	4	M16
2		50	16	<b>727 701 411</b>	0.380	165	121	78	19	24	4	M16
2 1/2		65	16	<b>727 701 412</b>	0.480	185	140	92	19	26	4	M16
3		80	16	<b>727 701 513</b>	0.520	200	152	108	19	27	4	M16
4	110	100	16	<b>727 701 514</b>	0.680	229	190	128	19	28	8	M16
	160	150	16	<b>727 700 517</b>	1.200	285	241	178	22	32	8	M20
	200	200	16	<b>727 700 519</b>	1.400	340	295	235	22	34	8	M20
	225	200	16	<b>727 700 520</b>	1.400	340	295	238	22	34	8	M20
[10]		250	16	<b>727 701 521</b>	1.800	406	362	288	26	38	12	M20
10	280	250	16	<b>727 701 522</b>	1.700	406	362	294	26	38	12	M20
12		300	16	<b>727 701 523</b>	2.400	483	432	338	26	42	12	M20

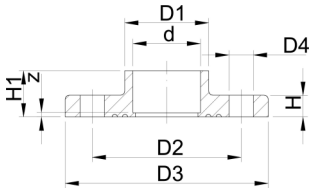


# Fixed Flange PVC-U JIS

## Fixed Flanges, PVC-U Jointing face serrated, JIS

Model:

- Solvent cement socket JIS

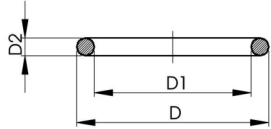


DN [mm]	Inch	PN	Code	SP	kg
20	3/4	16	<b>161 481 552</b>	-	0.137
2	16	16	<b>161 481 553</b>	-	0.217
32	1 1/4	16	<b>161 481 554</b>	-	0.317
40	1 1/2	16	<b>161 481 555</b>	-	0.380
50	2	16	<b>161 481 556</b>	-	0.480

DN [mm]	z [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	H1 [mm]	AL	SC
20	3	100	75	33	15	13	22	4	M12
2	3	125	90	41	19	15	25	4	M12
32	3	135	100	51	19	17	29	4	M16
40	3	140	105	62	19	18	34	4	M16
50	3	155	120	77	19	20	41	4	M16

# Seals

EPDM 48 41 00  
FPM 49 41 00



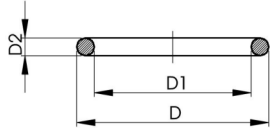
## O-Ring Gaskets

**Model:**

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

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]
10-12	8	748 410 004	749 410 004	-	0.002	18	12	3
16	10	748 410 005	749 410 005	-	0.002	21	16	3
25	20	748 410 006	749 410 006	-	0.002	27	20	4
25	20	748 410 007	749 410 007	100	0.002	35	28	4
32	25	748 410 008	749 410 008	100	0.002	40	33	4
50	40	748 410 009	749 410 009	-	0.006	51	41	5
50	40	748 410 010	749 410 010	-	0.007	58	47	5
63	50	748 410 011	749 410 011	100	0.010	70	60	5
75	65	748 410 014	749 410 014	100	0.012	93	82	5
90	80	748 410 015	749 410 015	100	0.015	112	101	5
110	100	748 410 016	749 410 016	50	0.031	134	120	7

EPDM 48 41 01  
FPM 49 41 01

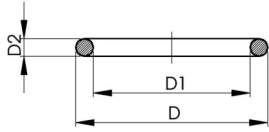


## O-Ring Gaskets

**Model:**

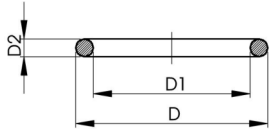
- For Flange Adaptors
- Hardness approx. 65° Shore

d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]
16	10	748 410 000	749 410 000	-	0.002	26	19	4
20	15	748 410 001	749 410 001	100	0.002	31	23	4
25	20	748 410 007	749 410 007	100	0.002	35	28	4
32	25	748 410 002	749 410 002	100	0.003	43	36	4
40	32	748 410 003	749 410 003	-	0.007	55	44	5
50	40	748 410 012	749 410 012	100	0.008	64	53	5
63	50	748 410 013	749 410 013	100	0.011	80	69	5
75	65	748 410 014	749 410 014	100	0.012	93	82	5
90	80	748 410 015	749 410 015	100	0.015	112	101	5
110	100	748 410 016	749 410 016	50	0.031	134	120	7
125	100	748 410 017	749 410 017	200	0.036	150	136	7
140	125	748 410 018	749 410 018	200	0.039	166	152	7
160	150	748 410 019	749 410 019	200	0.047	191	177	7
200	200	748 410 163	749 410 163	-	0.056	236	222	7
225	200	748 410 022	749 410 022	150	0.060	255	241	7
250	250	748 410 182	749 410 182	-	0.003	280	266	7
280	250	748 410 173	749 410 173	-	0.044	306	292	7
315	300	748 410 174	749 410 174	-	0.051	356	342	7



## O-Ring Gaskets Union end seal

d [mm]	EPDM Code	FPM Code	SP	kg
20	748 410 038	749 410 038	-	0.002
25	748 410 044	749 410 044	-	0.003
32	748 410 195	749 410 195	-	0.003
40	748 410 052	749 410 052	100	0.003
50	748 410 134	749 410 134	-	0.003
63	748 410 135	749 410 135	-	0.003



## O-Ring Gaskets

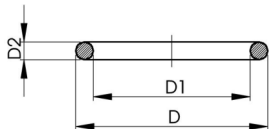
d [mm]	DN [mm]	EPDM Code	FPM Code	SP	kg
75	65	-	749 410 119	-	0.010
90	80	748 410 112	749 410 112	-	0.070
110	100	748 410 099	749 410 099	-	0.015
160	150	-	-	-	-

EPDM 48 41 01  
FPM 49 41 01

## O-Ring Gaskets

Model:

- Hardness approx. 65° Shore
- For Flange Adaptors No. 21 81 01 / 21 81 11, 21 80 01 (metric), 21 81 11 BS (ANSI)



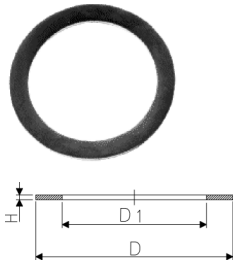
d [mm]	DN [mm]	Inch	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	D2 [mm]
110	50	4	748 410 013	749 410 013	100	0.011	80	69	5
	80		748 410 015	749 410 015	100	0.015	112	101	5
	100		748 410 020	749 410 020	-	0.010	134	120	7
	150	6	748 410 021	-	-	0.009	191	177	7
	200		748 410 022	749 410 022	150	0.060	255	241	7

EPDM 48 40 00  
FPM 49 40 00

## Flat Gaskets

### Model:

- For Flange Adaptors 21 79 01/21 80 01
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**



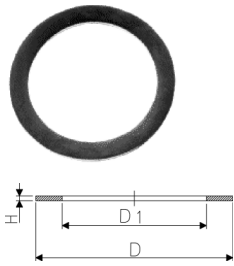
d [mm]	DN [mm]	Inch	PN	EPDM Code	FPM Code	SP	kg	D [mm]	D1 [mm]	H [mm]
16	10	3/8	10	<b>748 400 014</b>	-	-	0.002	27	16	2
20	15	1/2	10	<b>748 400 015</b>	<b>749 400 015</b>	100	0.003	32	20	2
25	20	3/4	10	<b>748 400 016</b>	<b>749 400 016</b>	100	0.003	39	25	2
32	25	1	10	<b>748 400 017</b>	<b>749 400 017</b>	100	0.004	48	32	2
40	32	1 1/4	10	<b>748 400 018</b>	<b>749 400 018</b>	100	0.008	59	40	3
50	40	1 1/2	10	<b>748 400 019</b>	<b>749 400 019</b>	100	0.012	71	50	3
63	50	2	10	<b>748 400 020</b>	<b>749 400 020</b>	-	0.017	88	63	3
75	65	2 1/2	10	<b>748 400 021</b>	<b>749 400 021</b>	50	0.024	104	75	3
90	80	3	10	<b>748 400 022</b>	<b>749 400 022</b>	50	0.032	123	90	3
110	100	4	10	<b>748 400 023</b>	<b>749 400 023</b>	-	0.062	148	110	4
125	100	4	10	<b>748 400 024</b>	<b>749 400 024</b>	-	0.058	168	125	4
140	125	5	10	<b>748 400 025</b>	<b>749 400 025</b>	-	0.058	186	140	4
160	150	6	10	<b>748 400 026</b>	<b>749 400 026</b>	-	0.063	211	160	4
200	200	6	6	<b>748 400 031</b>	-	50	0.090	248	195	5
225	200	8	6	<b>748 400 027</b>	<b>749 400 027</b>	-	0.103	272	220	5
280	250	10	6	<b>748 400 032</b>	-	-	0.138	328	273	5
315	300	12	6	<b>748 400 033</b>	-	-	0.207	378	305	5

EPDM 48 40 00  
FPM 49 40 00

## Flat Gaskets

### Model:

- Hardness approx. 65° Shore
- For adaptor unions



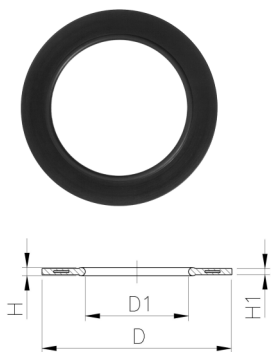
d [mm]	Inch	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]
12	1/4	<b>748 400 004</b>	-	0.002	20	13	2
16	3/8	<b>748 400 005</b>	<b>749 400 005</b>	0.002	24	17	2
20	1/2	<b>748 400 006</b>	<b>749 400 006</b>	0.003	30	21	3
25	3/4	<b>748 400 007</b>	<b>749 400 007</b>	0.004	38	27	3
32	1	<b>748 400 008</b>	<b>749 400 008</b>	0.002	44	32	3
40	1 1/4	<b>748 400 009</b>	<b>749 400 009</b>	0.003	55	42	3
50	1 1/2	<b>748 400 010</b>	<b>749 400 010</b>	0.004	62	46	3
63	2	<b>748 400 011</b>	<b>749 400 011</b>	0.006	78	60	3
75	2 1/2	<b>748 400 012</b>	<b>749 400 012</b>	0.009	97	75	3
90	3	<b>748 400 013</b>	<b>749 400 013</b>	0.011	109	88	3

EPDM 48 44 01  
FPM 49 44 01

## Flange Gaskets metric

### Model:

- G-ST-P/K Profil
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- For flange adaptors only in combination with butterfly valves



d [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]
16	748 440 100	749 440 100	0.007	46	16	4	3
20	748 440 101	749 440 101	0.008	51	20	4	3
25	748 440 102	749 440 102	0.011	61	25	4	3
32	748 440 103	749 440 103	0.014	71	32	4	3
40	748 440 104	749 440 104	0.020	82	40	4	3
50	748 440 105	749 440 105	0.021	92	50	4	3
63	748 440 106	749 440 106	0.040	107	63	5	4
75	748 440 107	749 440 107	0.054	127	75	5	4
90	748 440 108	749 440 108	0.060	142	90	5	4
110	748 440 109	749 440 109	0.083	162	110	6	5
125	748 440 110	749 440 110	0.154	192	125	6	5
140	748 440 111	749 440 111	0.115	192	140	6	5
160	748 440 112	749 440 112	0.149	218	160	8	6
200	748 440 114	749 440 114	0.257	273	200	8	6
225	748 440 115	749 440 115	0.177	273	225	8	6
280	748 440 117	749 440 117	0.220	328	280	8	6
315	748 440 118	749 440 118	0.326	378	315	8	6
355	748 440 119	749 440 119	0.400	438	355	10	7
400	748 440 120	749 440 120	0.500	489	400	10	7

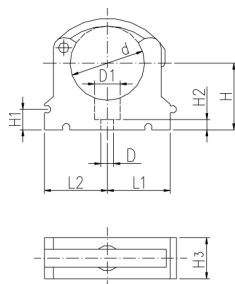
# Pipe Clips metric

## KLIP-IT Pipe Clips Type 061, PP metric



### Model:

- For mm pipes
- Material: Clip and safety clip PP black, UV resistant
- **Minimum order quantity: standard packagings SP**



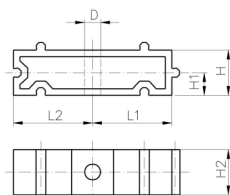
d [mm]	Code	SP	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
*10	<b>167 061 003</b>	10	5	8	11	14	20	10	6	12	M4
*12	<b>167 061 004</b>	10	5	8	11	14	21	10	6	12	M5
*16	<b>167 061 035</b>	10	6	11	14	14	27	10	6	16	M5
*20	<b>167 061 036</b>	10	6	11	17	17	27	10	6	16	M5
*25	<b>167 061 037</b>	10	6	11	19	19	30	10	6	16	M5
*32	<b>167 061 038</b>	10	6	11	29	29	36	10	6	16	M5
40	<b>167 061 039</b>	10	7	14	34	34	44	10	7	22	M6
50	<b>167 061 040</b>	10	7	14	37	37	51	10	7	22	M6
63	<b>167 061 041</b>	10	9	17	45	45	64	10	10	25	M8
75	<b>167 061 012</b>	10	9	17	52	52	58	10	10	25	M8
90	<b>167 061 013</b>	10	9	17	65	65	65	10	10	28	M8
110	<b>167 061 014</b>	10	9	17	79	79	75	10	10	28	M8
125	<b>167 061 015</b>	10	9	17	88	88	90	10	10	32	M8
140	<b>167 061 016</b>	10	9	17	98	98	110	10	10	32	M8
160	<b>167 061 017</b>	10	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**



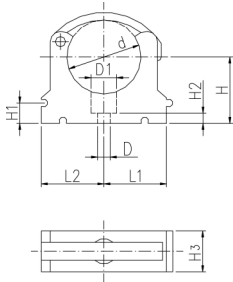
d [mm]	Inch	Code	SP	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
10-12	1/8-1/4	<b>167 061 153</b>	10	0.003	5	11	14	20	10	12	M4
16	3/8	<b>167 061 155</b>	10	0.006	6	14	17	20	10	16	M5
20	1/2	<b>167 061 156</b>	10	0.006	6	17	19	20	10	16	M5
25	3/4	<b>167 061 157</b>	10	0.007	6	19	22	20	10	16	M5
32	1	<b>167 061 158</b>	10	0.008	6	24	27	20	10	16	M5
40	1 1/4	<b>167 061 159</b>	10	0.016	7	34	34	20	10	22	M6
50	1 1/2	<b>167 061 160</b>	10	0.017	7	37	37	20	10	22	M6
63	2	<b>167 061 161</b>	10	0.024	9	45	45	20	10	25	M8
75	2 1/2	<b>167 061 162</b>	10	0.027	9	52	52	20	10	25	M8
90	3	<b>167 061 163</b>	10	0.040	9	65	65	20	10	28	M8
110	4	<b>167 061 164</b>	10	0.048	9	79	79	20	10	28	M8
125	4 1/2	<b>167 061 165</b>	10	0.059	9	88	88	20	10	32	M8
140	5	<b>167 061 166</b>	10	0.065	9	98	98	20	10	32	M8
160	6	<b>167 061 167</b>	10	0.074	9	109	109	20	10	32	M8

## KLIP-IT Pipe Clips Type 061, PE metric



### Model:

- For mm pipes
- Material: Clip PE and safety clip PP black
- **Minimum order quantity: standard packaging SP**

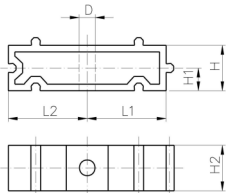


d [mm]	Code	SP	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
*10	<b>173 061 003</b>	10	0.003	5	8	11	14	20	10	6	12	M4
*12	<b>173 061 004</b>	10	0.006	5	8	11	14	21	10	6	12	M5
*16	<b>173 061 005</b>	10	0.007	6	11	14	14	23	10	6	16	M5
*20	<b>173 061 006</b>	10	0.008	6	11	17	17	25	10	6	16	M5
*25	<b>173 061 007</b>	10	0.009	6	11	19	19	28	10	6	16	M5
*32	<b>173 061 008</b>	10	0.012	6	11	29	29	31	10	6	16	M5
40	<b>173 061 009</b>	10	0.022	7	14	34	34	35	10	7	22	M6
50	<b>173 061 010</b>	10	0.030	7	14	37	37	40	10	7	22	M6
63	<b>173 061 011</b>	10	0.044	9	17	45	45	52	10	10	25	M8
75	<b>173 061 012</b>	10	0.062	9	17	52	52	58	10	10	25	M8
90	<b>173 061 013</b>	10	0.090	9	17	65	65	65	10	10	28	M8
110	<b>173 061 014</b>	10	0.114	9	17	79	79	75	10	10	28	M8
125	<b>173 061 015</b>	10	0.174	9	17	88	88	90	10	10	32	M8
140	<b>173 061 016</b>	10	0.217	9	17	98	98	110	10	10	32	M8
160	<b>173 061 017</b>	10	0.237	9	17	109	109	108	10	10	32	M8

## KLIP-IT Spacer Type 061, PE

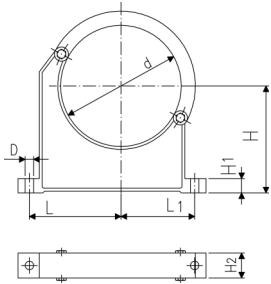
### Model:

- For pipe clips Type 061, PE black, UV resistant
- **Minimum order quantity: standard packaging SP**



d [mm]	Inch	Code	SP	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
	1/8-1/4	<b>173 061 153</b>	10	0.003	5	11	14	20	10	12	M4
16	3/8	<b>173 061 155</b>	10	0.005	6	14	17	20	10	16	M5
20	1/2	<b>173 061 156</b>	10	0.006	6	17	19	20	10	16	M5
25	3/4	<b>173 061 157</b>	10	0.007	6	19	22	20	10	16	M5
32	1	<b>173 061 158</b>	10	0.008	6	24	27	20	10	16	M5
40	1 1/4	<b>173 061 159</b>	10	0.016	7	34	34	20	10	22	M6
50	1 1/2	<b>173 061 160</b>	10	0.017	7	37	37	20	10	22	M6
63	2	<b>173 061 161</b>	10	0.025	9	45	45	20	10	25	M8
75	2 1/2	<b>173 061 162</b>	10	0.027	9	52	52	20	10	25	M8
90	3	<b>173 061 163</b>	10	0.040	9	65	65	20	10	28	M8
110	4	<b>173 061 164</b>	10	0.048	9	79	79	20	10	28	M8
125	4 1/2	<b>173 061 165</b>	10	0.059	9	88	88	20	10	32	M8
140	5	<b>173 061 166</b>	10	0.065	9	98	98	20	10	32	M8
160	6	<b>173 061 167</b>	10	0.074	9	109	109	20	10	32	M8

## Pipe Clips Type 060, PP metric

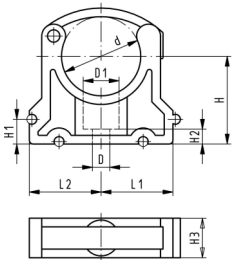


### Model:

- For mm pipes d90-400
- Material: Clip and safety clip PP black, UV resistant
- 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	SP	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC
90	<b>167 060 038</b>	10	0.163	9	89	71	105	15	33	M 8
110	<b>167 060 039</b>	10	0.179	9	94	80	115	15	33	M 8
125	<b>167 060 040</b>	10	0.300	11	116	91	130	20	35	M10
140	<b>167 060 041</b>	10	0.309	11	121	98	130	20	35	M10
160	<b>167 060 042</b>	10	0.348	11	131	107	148	20	35	M10
180	<b>167 060 043</b>	5	0.378	11	143	115	163	20	35	M10
200	<b>167 060 019</b>	5	0.582	13	152	120	175	25	39	M12
225	<b>167 060 020</b>	5	0.612	13	165	132	175	25	39	M12
250	<b>167 060 021</b>	5	0.698	13	183	143	200	25	39	M12
280	<b>167 060 022</b>	5	0.722	13	198	156	200	25	39	M12
315	<b>167 060 023</b>	5	0.842	13	219	172	225	25	39	M12
355	<b>167 060 024</b>	5	1.250	17	275	209	258	30	50	M16
400	<b>167 060 025</b>	5	1.450	17	300	228	288	30	50	M16

## KLIP-IT Pipe Clips Type 061H, PP metric



### Model:

- For mm-pipes d16-d63
- Material: PP black, UV resistant
- **Minimum order quantity: standard packagings SP**
- Height designed for Ball Valve Type 546
- \* d16 to d32 without bracket

d [mm]	Code	SP	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC
*16	<b>167 061 035</b>	10	0.006	6	11	14	14	27	10	6	16	M5
*20	<b>167 061 036</b>	10	0.008	6	11	17	17	27	10	6	16	M5
*25	<b>167 061 037</b>	10	0.009	6	11	19	19	30	10	6	16	M5
*32	<b>167 061 038</b>	10	0.012	6	11	29	29	36	10	6	16	M5
40	<b>167 061 039</b>	10	0.027	7	14	34	34	44	10	7	22	M6
50	<b>167 061 040</b>	10	0.031	7	14	37	37	51	10	7	22	M6
63	<b>167 061 041</b>	10	0.054	9	17	45	45	64	10	10	25	M8





# Complete solutions

GF Piping Systems Norma offers efficient solutions for any coupling or repair problem you may encounter. Detailed technical specifications are mentioned in this brochure and for further information, please consult our technical handbook or contact us.

Type	Steel quality		Range in mm									
	W2		OD min							OD max		
			W5	26,9	168,3	180	300	400	650	750	1200	2032
Flex E	•	•	48 bar	21,9	14,4					3,2 bar		
Flex	•	•		34,4	24					5,3		
Flex U	•	•			21,5							2,0
Grip E	•	•	64	16	8,8		1,6					
Grip	•	•	64	24	13		4					
Grip FPE		•	64	16								
Combi grip E		•	20	20		6						
Combi grip	•	•	20	20		7						
Plast grip E		•	20	20		6						
Plast grip	•	•	20	20		7						
Rep E		•	48	21,9						3,2		

Maximum PFA (pressure) at OD

## Certificates

Certificates	Types				Combi Grip	Plast Grip
	Flex (E)		Grip (E)			
	26,9-170 mm	>170 mm	269-170 mm	>170 mm		
<b>Water certificates</b>						
KTW	•		•	•	•	•
DVGW						•
SVGW	•	•	•	•		•
SKZ					•	•
NSF	EPDM	EPDM	EPDM	EPDM	EPDM	EPDM
SGS	EPDM	EPDM	EPDM	EPDM	EPDM	EPDM
<b>Gas certificates</b>						
DVGW						•
SVGW			NBR		NBR	NBR
DVGW «Baumuster»	NBR	NBR	NBR	NBR	NBR	NBR
BMFP			•			










& approvals for utilities, industry and shipbuilding.

The essential criteria for the design of products and selection of materials are quality and where available (international) product standards.

The characteristics of these materials match the design specifications and fulfill the requirements of the inspection authorities listed.

# Norma Couplings and Accessories

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# GRIP Couplings

## GRIP W5 stainless steel lock



- End load resistance for all metal pipes
- Solid bolt lock
- Max. operating pressure 64 bar
- Temperature range:
  - DN20 - DN150 EPDM -30°C to **+125°C**
  - NBR -20°C to +80°C
  - from DN180 EPDM/NBR -20°C to +80°C
- Body material: 1.4571
- from d 180,0 mm in-between sizes on request
- **P max.** = is the maximum allowable operating pressure for all applications based on the safety factor from  $\Rightarrow$  1,5 and the corresponding wall thickness of C-steel pipes

d [mm]	Nomi- nal pres- sure [bar]	Opera- ting pressure P max. [bar]	Range [mm]	EPDM Code	NBR Code	kg	
26,9	16,0	64,0	26,5 - 27,5	779 412 001	779 409 001	0.300	
28,0	16,0	64,0	27,5 - 28,5	779 412 002	779 409 002	0.300	
30,0	16,0	64,0	29,5 - 30,6	779 412 003	779 409 003	0.300	
33,7	16,0	64,0	33,0 - 34,3	779 412 005	779 409 005	0.400	
35,0	16,0	40,0	34,5 - 35,6	779 412 006	779 409 006	0.500	
38,0	16,0	40,0	37,5 - 38,6	779 412 007	779 409 007	0.540	
42,4	16,0	40,0	41,7 - 43,0	779 412 009	779 409 009	0.550	
44,5	16,0	40,0	44,0 - 45,1	779 412 010	779 409 010	0.560	
48,3	16,0	40,0	47,6 - 48,9	779 412 011	779 409 011	0.580	
54,0	16,0	40,0	53,3 - 54,6	779 412 014	779 409 014	0.740	
57,0	16,0	40,0	56,3 - 57,7	779 412 015	779 409 015	0.760	
60,3	16,0	40,0	59,5 - 61,0	779 412 016	779 409 016	0.770	
73,0	16,0	32,0	72,1 - 73,8	779 412 019	779 409 019	1.400	
76,1	16,0	32,0	75,2 - 77,0	779 412 020	779 409 020	1.400	
78,0	16,0	32,0	77,1 - 78,9	779 412 021	779 409 021	1.400	
84,0	16,0	32,0	83,0 - 85,0	779 412 024	779 409 024	1.460	
88,9	16,0	32,0	88,0 - 89,8	779 412 025	779 409 025	1.480	
98,0	16,0	30,0	96,9 - 99,0	779 412 028	779 409 028	1.600	
101,6	16,0	30,0	100,4 - 102,8	779 412 029	779 409 029	1.600	
104,0	16,0	30,0	102,8 - 106,1	779 412 030	779 409 030	1.875	
108,0	16,0	30,0	106,8 - 109,2	779 412 032	779 409 032	1.650	
114,3	16,0	30,0	113,0 - 115,5	779 412 033	779 409 033	1.700	
118,0	16,0	30,0	116,6 - 119,2	779 412 034	779 409 034	1.720	
129,0	16,0	30,0	127,6 - 131,1	779 412 038	779 409 038	2.410	
133,0	16,0	30,0	131,5 - 134,4	779 412 039	779 409 039	2.440	
139,7	16,0	30,0	138,1 - 141,6	779 412 040	779 409 040	2.450	
141,3	16,0	30,0	139,6 - 142,8	779 412 041	779 409 041	2.450	
144,0	16,0	30,0	142,4 - 145,5	779 412 042	779 409 042	2.450	
154,0	16,0	20,0	152,3 - 156,1	779 412 045	779 409 045	2.640	
159,0	16,0	20,0	157,3 - 160,7	779 412 046	779 409 046	2.690	
168,3	16,0	20,0	166,5 - 170,1	779 412 050	779 409 050	2.750	
170,0	16,0	20,0	168,2 - 171,9	779 412 051	779 409 051	2.750	
219,1	16,0	20,0	216,0 - 221,0	779 412 063	779 409 063	6.500	
267,0	10,5	17,0	264,0 - 269,0	779 412 076	779 409 076	7.900	
273,0	10,0	16,0	270,0 - 275,0	779 412 078	779 409 078	8.000	
323,9	7,0	11,0	320,0 - 327,0	779 412 091	779 409 091	9.500	
355,6	5,5	9,0	352,0 - 359,0	779 412 102	779 409 102	10.800	
406,4	4,5	7,2	402,0 - 410,0	779 412 116	779 409 116	7.900	
457,2	3,5	5,6	454,0 - 459,0	779 412 131	779 409 131	8.100	
508,2	3,5	5,6	505,0 - 510,0	779 412 145	779 409 145	8.400	
609,4	3,0	4,8	606,0 - 613,0	779 412 172	779 409 172	9.800	
711,2	2,5	4,0	710,0 - 712,0	779 412 197	779 409 197	21.000	



## GRIP E W5 stainless steel lock

- End load resistance for all metal pipes
- Hollow holt lock
- Max. operating pressure 64 bar
- Temperature range:
  - DN20 - DN150 EPDM -30°C to +125°C
  - NBR -20°C to +80°C
  - from DN180 EPDM/NBR -20°C to +80°C
- Body material: 1.4571
- from d 180,0 mm in-between sizes on request
- **P max.** = is the maximum allowable operating pressure for all applications based on the safety factor from  $\Rightarrow$  1,5 and the corresponding wall thickness of C-steel pipes

d [mm]	Nomi- nal pres- sure [bar]	Opera- ting pressure P max. [bar]	Range [mm]	EPDM Code	NBR Code	kg
26,9	16,0	64,0	26,5 - 27,5	779 424 001	779 421 001	0.320
28,0	16,0	64,0	27,5 - 28,5	779 424 002	779 421 002	0.160
30,0	16,0	64,0	29,5 - 30,6	779 424 003	779 421 003	0.320
33,7	16,0	64,0	33,0 - 34,3	779 424 005	779 421 005	0.320
35,0	16,0	40,0	34,5 - 35,6	779 424 006	779 421 006	0.430
38,0	16,0	40,0	37,5 - 38,6	779 424 007	779 421 007	0.430
42,4	16,0	40,0	41,7 - 43,0	779 424 009	779 421 009	0.440
44,5	16,0	40,0	44,0 - 45,1	779 424 010	779 421 010	0.460
48,3	16,0	40,0	47,6 - 48,9	779 424 011	779 421 011	0.470
54,0	16,0	40,0	53,3 - 54,6	779 424 014	779 421 014	0.610
57,0	16,0	40,0	56,3 - 57,7	779 424 015	779 421 015	0.620
60,3	16,0	40,0	59,5 - 61,0	779 424 016	779 421 016	0.630
63,0	16,0	40,0	62,2 - 63,7	779 424 017	779 421 017	0.540
73,0	16,0	36,0	72,1 - 73,8	779 424 019	779 421 019	1.000
76,1	16,0	36,0	75,2 - 77,0	779 424 020	779 421 020	1.250
84,0	16,0	32,0	83,0 - 85,0	779 424 024	779 421 024	1.000
88,9	16,0	32,0	88,0 - 89,8	779 424 025	779 421 025	1.290
98,0	16,0	32,0	96,9 - 99,0	779 424 028	779 421 028	1.450
101,6	16,0	30,0	100,4 - 102,8	779 424 029	779 421 029	1.450
104,0	16,0	30,0	102,8 - 106,1	779 424 030	779 421 030	1.430
108,0	16,0	30,0	106,8 - 109,2	779 424 032	779 421 032	1.460
114,3	16,0	30,0	113,0 - 115,5	779 424 033	779 421 033	1.500
118,0	16,0	30,0	116,6 - 119,2	779 424 034	779 421 034	1.400
129,0	16,0	30,0	127,6 - 131,1	779 424 038	779 421 038	1.800
133,0	16,0	30,0	131,5 - 134,4	779 424 039	779 421 039	2.240
139,7	16,0	30,0	138,1 - 141,6	779 424 040	779 421 040	2.260
141,6	16,0	30,0	139,6 - 142,8	779 424 041	779 421 041	2.200
144,0	16,0	30,0	142,4 - 145,5	779 424 042	779 421 042	2.260
154,0	16,0	20,0	152,3 - 156,1	779 424 045	779 421 045	2.440
159,0	16,0	20,0	157,3 - 160,7	779 424 046	779 421 046	2.530
168,3	16,0	20,0	166,5 - 170,1	779 424 050	779 421 050	2.580
170,0	16,0	20,0	168,2 - 171,9	779 424 051	779 421 051	2.500
219,1	10,0	16,0	216,0 - 221,0	779 424 063	779 421 063	5.100
267,0	5,5	8,8	264,0 - 269,0	779 424 076	779 421 076	2.500
273,0	5,5	8,8	270,0 - 275,0	779 424 078	779 421 078	5.800
323,9	3,0	4,8	320,0 - 327,0	779 424 091	779 421 091	6.100
355,6	2,7	4,3	352,0 - 359,0	779 424 102	779 421 102	2.500
406,4	2,5	4,0	402,0 - 410,0	779 424 116	779 421 116	7.100
457,2	2,5	4,0	454,0 - 459,0	779 424 131	779 421 131	7.800
508,2	2,0	3,2	505,0 - 510,0	779 424 145	779 421 145	8.000
609,4	1,0	1,6	606,0 - 613,0	779 424 172	779 421 172	9.500
711,2	0,8	1,3	708,0 - 715,0	779 424 197	779 421 197	12.800

## GRIP X W5

\* on request

d [mm]	Nomi- nal pres- sure [bar]	Opera- ting pressure P max. [bar]	Range [mm]	Code	Code	kg
323,9	*	*	320,0 - 327,0	<b>779 564 091</b>	<b>779 562 091</b>	9.800
355,6	*	*	352,0 - 359,0	<b>779 564 102</b>	<b>779 562 102</b>	10.500
406,4	*	*	402,0 - 410,0	<b>779 564 116</b>	<b>779 562 116</b>	7.600
457,2	*	*	454,0 - 459,0	<b>779 564 131</b>	<b>779 562 131</b>	7.800
508,2	*	*	505,0 - 510,0	<b>779 564 145</b>	<b>779 562 145</b>	8.000
609,4	*	*	606,0 - 613,0	<b>779 564 172</b>	<b>779 562 172</b>	9.500



## GRIP E W2 flameproof (VDS-licence) galvanized lock

- Temperature range:  
DN25 DN125 EPDM -30°C to +125°C  
NBR -20°C to +80°C
- End load resistance for all metal pipes
- Max. operating pressure 64 bar
- Body material: 1.4301
- **Material W5 and NBR-gasket on request**
- Further dimensions without VDS-licence on request
- **P max.** = is the maximum allowable operating pressure for all applications based on the safety factor from  $\Rightarrow 1,5$  and the corresponding wall thickness of C-steel pipes
- **Information: For GRIP and GRIP E it is possible to get the VDS-licence with an additional flameproofed jacket upgrade. Price on request.**

d [mm]	Nomi- nal pres- sure [bar]	Opera- ting pressure P max. [bar]	Range [mm]	EPDM Code	kg
33,7	16,0	64,0	33,0 - 34,3	<b>779 571 005</b>	0.320
35,0	16,0	40,0	34,5 - 35,6	<b>779 571 006</b>	
38,0	16,0	40,0	37,5 - 38,6	<b>779 571 007</b>	
42,4	16,0	40,0	41,7 - 43,0	<b>779 571 009</b>	
44,5	16,0	40,0	44,0 - 45,1	<b>779 571 010</b>	0.470
48,3	16,0	40,0	47,6 - 48,9	<b>779 571 011</b>	
54,0	16,0	40,0	53,3 - 54,6	<b>779 571 014</b>	
57,0	16,0	40,0	56,3 - 57,7	<b>779 571 015</b>	
60,3	16,0	40,0	59,5 - 61,0	<b>779 571 016</b>	0.770
73,0	16,0	36,0	72,1 - 73,8	<b>779 571 019</b>	
76,1	16,0	36,0	75,2 - 77,0	<b>779 571 020</b>	1.400
84,0	16,0	32,0	83,0 - 85,0	<b>779 571 024</b>	
88,9	16,0	32,0	88,0 - 89,8	<b>779 571 025</b>	1.480
98,0	16,0	30,0	96,9 - 99,0	<b>779 571 028</b>	
101,6	16,0	30,0	100,4 - 102,8	<b>779 571 029</b>	2.000
104,0	16,0	30,0	102,8 - 106,1	<b>779 571 030</b>	
108,0	16,0	30,0	106,8 - 109,2	<b>779 571 032</b>	
114,3	16,0	30,0	113,0 - 115,5	<b>779 571 033</b>	
118,0	16,0	30,0	116,6 - 119,2	<b>779 571 034</b>	1.650
129,0	16,0	30,0	127,6 - 131,1	<b>779 571 038</b>	
133,0	16,0	30,0	131,5 - 134,4	<b>779 571 039</b>	2.260
139,7	16,0	30,0	138,1 - 141,6	<b>779 571 040</b>	

# PLAST GRIP Couplings

## PLAST GRIP E W5 stainless steel lock



- Max. operating pressure 16 bar
- End load resistance for all plastic pipes
- Temperature range:  
EPDM -30°C to **+125°C** until d 160 mm  
NBR -20°C to +80°C
- Body material: 1.4571
- **For use on PE and other soft thermoplastics internal reinforcements are absolut necessary!**

d [mm]	Nomi- nal pres- sure [bar]	Range [mm]	EPDM Code	NBR Code	kg
40,0	16,0	39,5 - 40,5	<b>779 532 008</b>	<b>779 529 008</b>	0.480
50,0	16,0	49,5 - 50,5	<b>779 532 012</b>	<b>779 529 012</b>	0.530
63,0	16,0	62,0 - 64,0	<b>779 532 017</b>	<b>779 529 017</b>	0.670
75,0	16,0	74,0 - 76,0	<b>779 532 020</b>	<b>779 529 020</b>	1.300
90,0	16,0	89,0 - 91,0	<b>779 532 025</b>	<b>779 529 025</b>	1.400
110,0	16,0	108,5 - 111,5	<b>779 532 032</b>	<b>779 529 032</b>	1.600
125,0	16,0	123,5 - 126,5	<b>779 532 037</b>	<b>779 529 037</b>	3.000
140,0	16,0	138,5 - 141,5	<b>779 532 040</b>	<b>779 529 040</b>	3.200
160,0	16,0	158,0 - 162,0	<b>779 532 046</b>	<b>779 529 046</b>	3.500

## PLAST GRIP W5 stainless steel lock



- Further dimensions on request
- **Material W2 on request**

d [mm]	Nomi- nal pres- sure [bar]	Range [mm]	EPDM Code	NBR Code	kg
180,0	16,0	178,0 - 182,0	<b>779 512 054</b>	<b>779 509 054</b>	6.200
200,0	16,0	198,0 - 202,0	<b>779 512 059</b>	<b>779 509 059</b>	6.600
225,0	10,0	222,0 - 227,0	<b>779 512 065</b>	<b>779 509 065</b>	7.200
250,0	10,0	247,0 - 253,0	<b>779 512 071</b>	<b>779 509 071</b>	7.700
280,0	10,0	277,0 - 283,0	<b>779 512 079</b>	<b>779 509 079</b>	9.000
315,0	6,0	311,0 - 318,0	<b>779 512 088</b>	<b>779 509 088</b>	10.000
355,0	6,0	351,0 - 359,0	<b>779 512 102</b>	<b>779 509 102</b>	10.800
400,0	6,0	396,0 - 404,0	<b>779 512 114</b>	<b>779 509 114</b>	11.100

# COMBI GRIP Couplings

## COMBI GRIP E W5 stainless steel lock



- Max. operating pressure 16 bar
- End load resistance as connection plastic/metal pipes
- Temperature range:  
EPDM -30°C to **+125°C** until d 160 mm  
NBR -20°C to +80°C
- Body material: 1.4571
- **For use on PE and other soft thermoplastics internal reinforcements are absolut necessary!**

[mm]	Nomi- nal pres- sure [bar]	Range plastic [mm]	Range metal [mm]	EPDM Code	NBR Code	kg	
40 - 38,0	16,0	39 - 40	37 - 39	<b>779 540 007</b>	<b>779 537 007</b>	0.480	
40 - 42,5	16,0	39 - 40	41 - 43	<b>779 540 009</b>	<b>779 537 009</b>	0.480	
50 - 48,3	16,0	49 - 50	47 - 49	<b>779 540 011</b>	<b>779 537 011</b>	0.530	
63 - 60,3	16,0	62 - 64	59 - 61	<b>779 540 016</b>	<b>779 537 016</b>	0.670	
75 - 76,1	16,0	74 - 76	75 - 77	<b>779 540 020</b>	<b>779 537 020</b>	1.300	
90 - 88,9	16,0	89 - 91	88 - 90	<b>779 540 025</b>	<b>779 537 025</b>	1.400	
110 - 108,0	16,0	108 - 111	107 - 109	<b>779 540 032</b>	<b>779 537 032</b>	1.600	
110 - 114,3	16,0	108 - 111	113 - 116	<b>779 540 501</b>	<b>779 537 501</b>	1.600	
125 - 129,0	16,0	123 - 126	127 - 131	<b>779 540 038</b>	<b>779 537 038</b>	3.000	
140 - 139,7	16,0	138 - 142	138 - 141	<b>779 540 040</b>	<b>779 537 040</b>	3.200	
160 - 159,0	16,0	158 - 161	158 - 161	<b>779 540 046</b>	<b>779 537 046</b>	3.500	

## COMBI GRIP W5



- Further dimensions on request
- **Material W2 on request**

[mm]	Nomi- nal pres- sure [bar]	Range plastic [mm]	Range metal [mm]	EPDM Code	NBR Code	kg	
200 - 204,0	16,0	198 - 202	202 - 206	<b>779 524 329</b>	<b>779 522 329</b>	6.300	
225 - 219,1	10,0	222 - 227	217 - 222	<b>779 524 064</b>	<b>779 522 064</b>	6.800	
250 - 254,0	10,0	247 - 253	251 - 257	<b>779 524 071</b>	<b>779 522 071</b>	7.200	
280 - 283,0	10,0	277 - 283	275 - 276	<b>779 524 079</b>	<b>779 522 079</b>	8.500	
355 - 355,6	6,0	351 - 359	352 - 359	<b>779 524 102</b>	<b>779 522 102</b>	11.100	
400 - 406,4	6,0	396 - 404	402 - 410	<b>779 524 114</b>	<b>779 522 114</b>	11.100	



# FLEX Couplings

## FLEX E W5 stainless steel lock



- Not end load resistant connection for all pipe materials
- Max. operating pressure 48 bar
- Temperature range:
 

DN20 - DN150	EPDM	-30°C to <b>+125°C</b>
	NBR	-20°C to +80°C
from DN180	EPDM/NBR	-20°C to +80°C
- Body material: 1.4571
- **P max.** = is the maximum allowable operating pressure for all applications based on the safety factor from  $\Rightarrow$  1,5 and the corresponding wall thickness of C-steel pipes

d [mm]	Nomi- nal pres- sure [bar]	Opera- ting pressure P max. [bar]	Range [mm]	EPDM Code	NBR Code	kg
26,9	16,0	48,0	26,5 - 27,5	779 112 001	779 109 001	0.320
28,0	16,0	48,0	27,5 - 28,5	779 112 002	779 109 002	0.320
30,0	16,0	48,0	29,5 - 30,6	779 112 003	779 109 003	0.320
33,7	16,0	48,0	33,0 - 34,3	779 112 005	779 109 005	0.320
35,0	16,0	48,0	34,5 - 35,6	779 112 006	779 109 006	0.430
38,0	16,0	48,0	37,5 - 38,6	779 112 007	779 109 007	0.430
42,4	16,0	48,0	41,7 - 43,0	779 112 009	779 109 009	0.440
44,5	16,0	40,0	44,0 - 45,1	779 112 010	779 109 010	0.460
48,3	16,0	40,0	47,6 - 50,5	779 112 011	779 109 011	0.470
54,0	16,0	40,0	53,3 - 54,6	779 112 014	779 109 014	0.610
57,0	16,0	40,0	56,3 - 57,7	779 112 015	779 109 015	0.620
60,3	16,0	40,0	59,5 - 61,0	779 112 016	779 109 016	0.630
73,0	16,0	36,0	72,1 - 73,8	779 112 019	779 109 019	1.250
76,1	16,0	36,0	75,2 - 77,0	779 112 020	779 109 020	1.250
84,0	16,0	32,0	83,0 - 85,0	779 112 024	779 109 024	1.270
88,9	16,0	32,0	87,5 - 90,5	779 112 025	779 109 025	1.290
98,0	16,0	30,0	96,9 - 99,0	779 112 028	779 109 028	1.450
101,6	16,0	30,0	100,4 - 102,8	779 112 029	779 109 029	1.450
104,0	16,0	30,0	102,8 - 106,1	779 112 030	779 109 030	1.460
108,0	16,0	30,0	106,8 - 110,5	779 112 032	779 109 032	1.460
114,3	16,0	30,0	113,0 - 115,5	779 112 033	779 109 033	1.500
118,0	16,0	30,0	116,6 - 119,2	779 112 034	779 109 034	1.520
129,0	16,0	30,0	124,5 - 131,1	779 112 038	779 109 038	2.220
133,0	16,0	30,0	131,5 - 134,4	779 112 039	779 109 039	2.240
139,7	16,0	30,0	138,1 - 141,6	779 112 040	779 109 040	2.260
141,6	16,0	30,0	139,6 - 142,8	779 112 041	779 109 041	2.260
144,0	16,0	30,0	142,4 - 145,5	779 112 042	779 109 042	2.260
154,0	16,0	25,0	152,3 - 156,1	779 112 045	779 109 045	2.440
159,0	16,0	25,0	157,3 - 160,7	779 112 046	779 109 046	2.530
168,3	16,0	25,0	166,5 - 170,1	779 112 050	779 109 050	2.580
170,0	16,0	25,0	168,2 - 171,9	779 112 051	779 109 051	2.650
219,1	13,7	21,9	216,0 - 221,0	779 112 063	779 109 063	3.900
267,0	12,0	19,2	264,0 - 269,0	779 112 076	779 109 076	4.500
273,0	12,0	19,2	270,0 - 275,0	779 112 078	779 109 078	4.600
323,9	9,0	14,4	320,0 - 327,0	779 112 091	779 109 091	5.100
355,6	9,0	14,4	352,0 - 359,0	779 112 102	779 109 102	5.800
406,4	7,5	12,0	402,0 - 410,0	779 112 116	779 109 116	5.800
457,2	5,5	8,8	454,0 - 459,0	779 112 131	779 109 131	6.800
508,2	5,5	8,8	505,0 - 510,0	779 112 145	779 109 145	7.200
609,4	3,5	5,6	606,0 - 613,0	779 112 172	779 109 172	7.800
711,2	3,5	5,6	707,0 - 715,0	779 112 197	779 109 197	8.900
812,8	3,0	4,8	808,0 - 817,0	779 112 223	779 109 223	9.900



## FLEX E W5, FLEX W5, FLEX 3 W5 stainless steel lock

- Not end load resistant connection for all pipe materials
- Temperature range:  
from DN180 EPDM/NBR -20°C to +80°C
- Body material: 1.4301



d [mm]	EPDM/NBR FLEX E Code	EPDM/NBR FLEX Code	EPDM/NBR FLEX 3 Code
172 - 199	-	-	-
200 - 224	-	-	-
225 - 249	-	-	-
250 - 274	-	-	-
275 - 299	-	-	-
300 - 324	-	-	-
325 - 349	-	-	-
350 - 374	-	-	-
375 - 399	-	-	-
400 - 424	-	-	-
425 - 449	-	-	-
450 - 474	-	-	-
475 - 499	-	-	-
500 - 524	-	-	-
525 - 549	-	-	-
550 - 574	-	-	-
575 - 599	-	-	-
600 - 624	-	-	-
625 - 649	-	-	-
650 - 674	-	-	-
675 - 699	-	-	-
700 - 724	-	-	-
725 - 749	-	-	-
750 - 799	-	-	-
800 - 849	-	-	-
850 - 899	-	-	-
900 - 949	-	-	-
950 - 999	-	-	-
1000 - 1049	-	-	-
1050 - 1099	-	-	-
1100 - 1149	-	-	-
1150 - 1199	-	-	-
1200 - 1249	-	-	-
1250 - 1299	-	-	-
1300 - 1349	-	-	-
1350 - 1399	-	-	-
1400 - 1449	-	-	-
1450 - 1499	-	-	-
1500 - 1549	-	-	-
1550 - 1599	-	-	-
1600 - 1649	-	-	-
1650 - 1699	-	-	-
1700 - 1749	-	-	-
1750 - 1799	-	-	-
1800 - 1849	-	-	-
1850 - 1899	-	-	-
1900 - 1949	-	-	-
1950 - 1999	-	-	-
2000 - 2049	-	-	-

# REP Couplings

## REP E W5 stainless steel lock



- Not end load resistant repair shell for all pipe materials
- Max. operating pressure 48 bar
- Temperature range:
  - DN20 - DN150 EPDM -30°C to **+125°C**
  - NBR -20°C to +80°C
  - from DN180 EPDM/NBR -20°C to +80°C
- Body material: 1.4571
- **P max.** = is the maximum allowable operating pressure for all applications based on the safety factor from  $\Rightarrow$  1,5 and the corresponding wall thickness of C-steel pipes

d [mm]	Nomi- nal pres- sure [bar]	Opera- ting pressure P max. [bar]	Range [mm]	EPDM Code	NBR Code	kg	
35,0	16,0	48,0	34,5 - 35,6	779 312 006	779 309 006	0.500	
38,0	16,0	48,0	37,5 - 38,6	779 312 007	779 309 007	0.540	
42,4	16,0	48,0	41,7 - 43,0	779 312 009	779 309 009	0.550	
44,5	16,0	40,0	44,0 - 45,1	779 312 010	779 309 010	0.560	
48,3	16,0	40,0	47,6 - 50,5	779 312 011	779 309 011	0.580	
54,0	16,0	40,0	53,3 - 54,6	779 312 014	779 309 014	0.750	
57,0	16,0	40,0	56,3 - 57,7	779 312 015	779 309 015	0.760	
60,3	16,0	40,0	59,5 - 61,0	779 312 016	779 309 016	0.770	
73,0	16,0	36,0	72,1 - 73,8	779 312 019	779 309 019	1.400	
76,1	16,0	36,0	73,0 - 77,0	779 312 020	779 309 020	1.400	
84,0	16,0	32,0	83,0 - 85,0	779 312 024	779 309 024	1.460	
88,9	16,0	32,0	87,5 - 90,5	779 312 025	779 309 025	1.480	
98,0	16,0	30,0	96,9 - 99,0	779 312 028	779 309 028	1.450	
101,6	16,0	30,0	100,4 - 102,8	779 312 029	779 309 029	1.600	
104,0	16,0	30,0	102,8 - 106,1	779 312 030	779 309 030	1.630	
108,0	16,0	30,0	106,8 - 110,5	779 312 032	779 309 032	1.650	
114,3	16,0	30,0	113,0 - 115,5	779 312 033	779 309 033	1.700	
118,0	16,0	30,0	116,6 - 119,2	779 312 034	779 309 034	1.520	
129,0	16,0	30,0	124,5 - 131,1	779 312 038	779 309 038	2.410	
133,0	16,0	30,0	131,5 - 134,4	779 312 039	779 309 039	2.440	
139,7	16,0	30,0	138,1 - 141,6	779 312 040	779 309 040	2.450	
141,6	16,0	30,0	139,6 - 142,8	779 312 041	779 309 041	2.450	
144,0	16,0	30,0	142,4 - 145,5	779 312 042	779 309 042	2.450	
154,0	16,0	25,0	152,3 - 156,1	779 312 045	779 309 045	2.440	
159,0	16,0	25,0	157,3 - 160,7	779 312 046	779 309 046	2.690	
168,3	16,0	25,0	166,5 - 170,1	779 312 050	779 309 050	2.750	
170,0	16,0	25,0	168,2 - 171,9	779 312 051	779 309 051	2.750	
219,1	13,7	22,0	216,0 - 221,0	779 312 063	779 309 063	3.900	
267,0	12,0	19,2	264,0 - 269,0	779 312 076	779 309 076	4.500	
273,0	12,0	19,2	270,0 - 275,0	779 312 078	779 309 078	4.600	
323,9	9,0	14,4	320,0 - 327,0	779 312 091	779 309 091	5.100	
355,6	9,0	14,4	352,0 - 359,0	779 312 102	779 309 102	5.200	
406,4	7,5	12,0	402,0 - 410,0	779 312 116	779 309 116	5.800	
457,2	5,5	8,8	454,0 - 459,0	779 312 131	779 309 131	8.000	
508,2	5,5	8,8	505,0 - 510,0	779 312 145	779 309 145	8.000	
609,4	4,5	7,2	606,0 - 613,0	779 312 172	779 309 172	7.800	



## REP E W5 stainless steel lock

- Not end load resistant connection for all pipe materials
- Temperature range:  
from DN180 EPDM/NBR -20°C to +80°C
- Body material: 1.4571

d [mm]	EPDM/NBR Code
172 - 199	-
200 - 224	-
225 - 249	-
250 - 274	-
275 - 299	-
300 - 324	-
325 - 349	-
350 - 374	-
375 - 399	-
400 - 424	-
425 - 449	-
450 - 474	-
475 - 499	-
500 - 524	-
525 - 549	-
550 - 574	-
575 - 599	-
600 - 624	-
625 - 649	-
650 - 674	-
675 - 699	-
700 - 724	-
725 - 749	-
750 - 799	-
800 - 849	-
850 - 899	-
900 - 949	-
950 - 999	-
1000 - 1049	-
1050 - 1099	-
1100 - 1149	-
1150 - 1200	-

# Internal Reinforcements / Accessoires

## Accessoires



	Code	kg
Tongs for REP d 35,0 - 170,0 mm	<b>779 245 012</b>	0.500
Securing strap for REP d 177,8 - 1220 mm	<b>779 245 014</b>	0.350
Torque spanner 20 - 200 NM	<b>779 000 407</b>	2.000
Screwdriver insert SW 6	<b>779 000 404</b>	0.070
Screwdriver insert SW 8	<b>779 000 405</b>	0.080
Screwdriver insert SW 10	<b>779 000 406</b>	0.080
Screwdriver insert SW 14	<b>779 000 408</b>	0.080

## Internal Reinforcements stainless steel



d [mm]	e [mm]	di [mm]	Code	kg
40	2,3	35,4	<b>779 901 503</b>	0.100
40	3,7	32,6	<b>779 901 303</b>	0.100
50	2,9	44,2	<b>779 901 504</b>	0.120
50	4,6	40,8	<b>779 901 304</b>	0.120
63	5,8	51,4	<b>779 901 305</b>	0.140
63	8,7	45,6	<b>779 901 604</b>	0.100
75	4,3	66,4	<b>779 901 506</b>	0.160
75	6,9	61,2	<b>779 901 306</b>	0.160
90	5,1	79,8	<b>779 901 507</b>	0.200
90	8,2	73,6	<b>779 901 307</b>	0.200
110	6,6	96,8	<b>779 901 508</b>	0.280
110	10,0	90,0	<b>779 901 308</b>	0.280
110	15,2	79,5	<b>779 901 108</b>	0.100
125	7,4	110,2	<b>779 901 510</b>	0.300
125	11,4	102,2	<b>779 901 310</b>	0.300
140	8,3	123,4	<b>779 901 511</b>	0.400
140	12,7	114,6	<b>779 901 311</b>	0.400
160	9,5	141,0	<b>779 901 512</b>	0.600
160	14,6	130,8	<b>779 901 312</b>	0.600
180			<b>709 026 082</b>	1.380
180			<b>709 026 086</b>	1.380
200			<b>709 026 092</b>	1.450
200			<b>709 026 096</b>	1.450
225			<b>709 026 102</b>	1.520
225			<b>709 026 106</b>	1.520
250	9,6	230,8	<b>709 026 111</b>	-
250	14,3	221,4	<b>709 026 112</b>	1.700
250	22,7	204,6	<b>709 026 114</b>	1.700
250			<b>709 026 115</b>	1.900
250			<b>709 026 116</b>	0.926
315	9,2	296,6	<b>709 026 118</b>	2.600
315	12,1	290,8	<b>709 026 120</b>	2.500
315	17,9	279,2	<b>709 026 122</b>	2.400

# FUSEAL Sea Drain

FUSEAL Sea Drain has excellent chemical and physical properties to make the system ideal for handling corrosive chemical waste solutions present in laboratory and industrial DWV applications. Fuseal is suitable for use in the ship building industries as well as in areas where mixtures of acids, bases, and solvents are drained.

The FUSEAL Sea Drain piping system's polypropylene PPFR compound (FR=flame retardant) yields a combination of high chemical resistance, toughness and high strength at elevated temperatures which is ideal for a wide range of conditions including corrosive chemical waste solutions. FUSEAL Sea Drain is also suitable for use in black and grey water sanitary drains as cabins, galleys and laundries etc., scuppers and discharges (overboard), sounding air and venting of water tanks / dry spaces, vent pipes etc.

The MSA 250SE power unit features barcode operation, multiple joint and advanced transformer technology.

The Fuseal II fusion collar (1 1/2" to 6") provides simple insertion of pipe without coil removal.

## Advantages of FUSEAL Sea Drain

- High thermal ageing and thermal forming resistance
- Low creep elongation
- Handles corrosive drainage fluids up to 180°F (80°C) for short intervals up to 210°F (approx. 100°C)
- Non-essential and non-pressure drainage system rated to 1.76 bars (25 %)
- full vacuum
- No corrosion
- Conforms to the ASTM F-1412 standard specifications for polyolefine pipe and fittings for corrosive waste drainage system
- The piping system is not tested with respect to Fire Endurance
- Tested to Low Flame Spread acc. ASTM D635.
- High stress fracture resistance
- Easy installation (electrofusion)
- Long service life
- Pipe and fitting size dimensions range from 1 1/2" to 6" (bigger on request)

## Application for Ship Building

- Grey and black water
- scuppers and discharges (overboard), sounding air and venting of water tanks / dry spaces, vent pipes etc.

## Dimension range

- 1 1/2" to 6" (bigger size on request)

## Temperature range

0°C to +80°C (short term 100°C)

# FUSEAL Sea Drain

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# Fuseal

## Corrosive Waste Pipe – Schedule 40

Material: Flame Retardant Polypropylene

8" thru 16" Pipe F.O.B. Plant – Freight Paid by Customer

### PPFR Schedule 40 Group I Pipe – 10 ft. lengths (except 8")

P/L 23

Inch Size	Part Number	Lift Qty (ft.)	avg. od	min. wall
1½	F8004-015AA	1800	1.900	0.145
2	F8004-020AA	1050	2.375	0.154
3	F8004-030AA	580	3.500	0.216
4	F8004-040AA	510	4.500	0.237
6	F8004-060AA	220	6.625	0.280

\*20' length

20' lengths available upon request

## PPFR Fusion Fittings – Schedule 40

P/L 51 Fabricated (part number ends with "F")

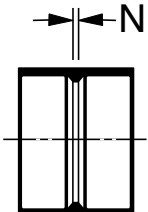
P/L 52 Molded

Material: Flame Retardant Polypropylene

6" through 12" fittings require the use of a metal band clamp; metal band clamps must be ordered separately.

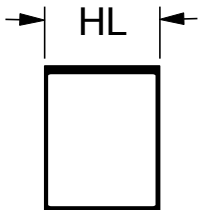
Note: Custom fittings available on request.

### Coupling (S x S)



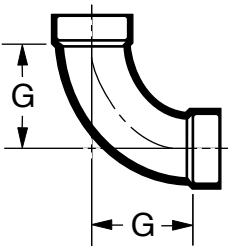
Inch Size	Part Number	Std. Pack	N
1½	527001	50	0.06
2	527002	45	0.06
3	527003	60	0.13
4	527004	20	0.13
6	527006	10	0.19

### Sleeve Coupling (S x S)



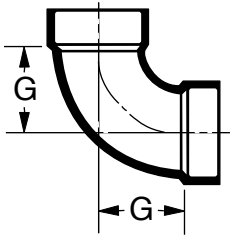
Inch Size	Part Number	Std. Pack	HL
1½	527041	2	1.56
2	527042	2	1.81
3	527043	2	2.00
4	527044	2	2.00
6	527046	2	2.69

### 1/4 Bend – Long Sweep (S x S)



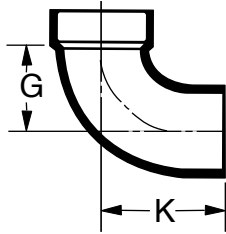
Inch Size	Part Number	Std. Pack	G
1½	526276	30	2.75
2	526277	30	3.25
3	526278	15	4.06
4	526279	4	4.94
6	526280F	2	11.00





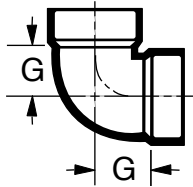
### 1/4 Bend – Short Sweep (S x S)

Inch Size	Part Number	Std. Pack	G
1½	526251	45	1.75
2	526252	25	2.31
3	526253	30	3.06
4	526254	10	3.88
6	526256	5	5.63



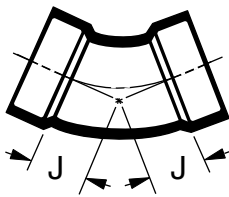
### 1/4 Bend – Street (Spg x S)

Inch Size	Part Number	Std. Pack	G	K
1½	526451	35	1.75	3.11
2	526452	30	2.31	3.80
3	526453	5	3.06	4.75
4	526454	5	3.88	5.38
6	526456F	2	11.00	10.81



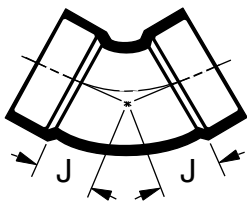
### 1/4 Bend – Vent (S x S)

Inch Size	Part Number	Std. Pack	G
1½	526201	40	1.19
2	526202	30	1.50
3	526203	5	1.88



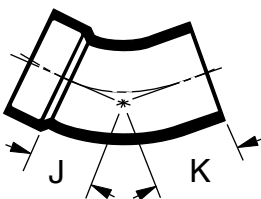
### 1/6 Bend (S x S)

Inch Size	Part Number	Std. Pack	J
1½	526601	10	1.00
2	526602	10	1.31
3	526603	5	1.69
4	526604	2	2.06



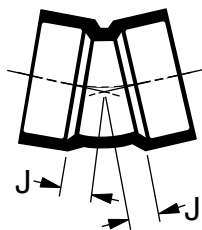
### 1/8 Bend (S x S)

Inch Size	Part Number	Std. Pack	J
1½	526501	40	1.13
2	526502	25	1.50
3	526503	20	1.75
4	526504	10	2.19
6	526506	5	3.37



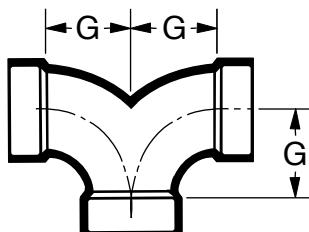
### 1/8 Bend – Street (Spg x S)

Inch Size	Part Number	Std. Pack	J	K
1½	526401	45	1.13	2.44
2	526402	30	1.50	2.50
3	526403	15	1.75	3.25
4	526404	10	2.19	3.25
6	526406	5	3.38	4.75



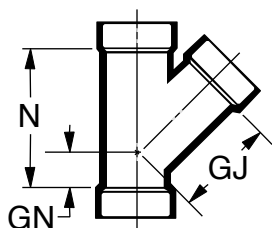
### 1/16 Bend (S x S)

Inch Size	Part Number	Std. Pack	J
2	526552	15	0.69
3	526553	2	0.81
4	526554	5	1.00



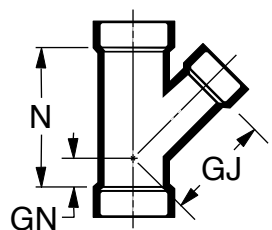
### 3-Way Ell (S x S x S)

Inch Size	Part Number	Std. Pack	G
1½	526261	5	1.75
2	526262	10	2.31



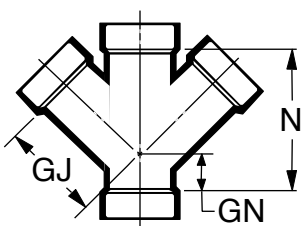
### 45° Wye (S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
1½	526301	20	2.88	1.13	4.00
2	526302	10	3.63	1.38	5.00
3	526303	10	5.00	1.63	6.63
4	526304	5	6.38	1.88	8.25
6	526306	2	9.13	1.63	10.75



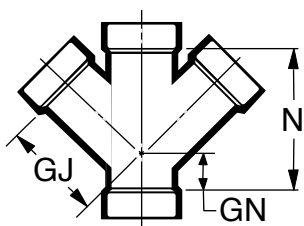
### 45° Wye - Reducing (S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
2x2x1½	526325	20	3.44	1.06	4.38
3x3x1½	526324	15	4.63	0.88	5.00
3x3x2	526326	15	4.63	0.88	5.00
4x4x2	526328	10	5.56	0.38	5.06
4x4x3	526327	10	6.00	1.06	6.63
6x6x2	526342	2	6.75	0.13	4.73
6x6x3	526343	3	7.43	0.19	6.38
6x6x4	526344	4	7.75	0.68	7.73



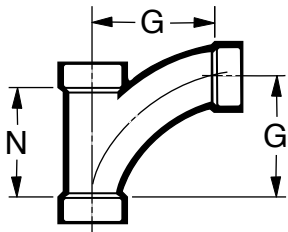
### 45° Wye - Double (S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
1½	526380	4	3.50	1.13	4.63
2	526381	4	4.00	1.38	5.38
3	526382	1	5.00	1.63	7.63
4	526383	1	6.38	1.88	9.25
6	526351F	1	12.25	6.18	18.88



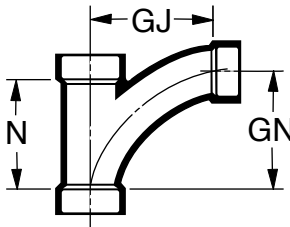
### 45° Wye - Double Reducing (S x S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
2x2x1½x1½	526384	2	3.44	1.06	5.38
3x3x1½x1½	526389	1	4.31	.50	5.25
3x3x2x2	526385	1	4.63	.88	6.00
4x4x2x2	526386	1	5.56	.38	6.06
4x4x3x3	526387	1	6.00	1.06	7.63
6x6x3x3	526390F	1	9.25	0.68	7.75
6x6x4x4	526388	1	7.75	0.69	7.75



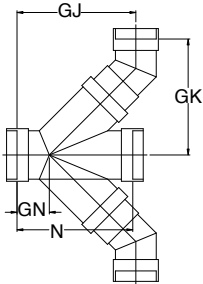
### Long Turn Tee Wye (S x S x S)

Inch Size	Part Number	Std. Pack	G	N
1½	527301	20	3.94	3.63
2	527302	25	5.13	4.44
3	527303	10	7.56	6.50
4	527304	5	9.82	8.75



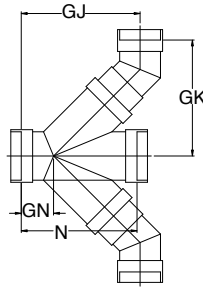
### Long Turn Tee Wye - Reducing (S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
2x2x1½	527320	20	4.19	3.94	3.63
3x3x1½	527326	5	4.75	3.94	3.81
3x3x2	527327	12	5.69	5.13	4.75
4x4x2	527337	5	6.13	5.13	4.50
4x4x3	527338	8	8.06	7.56	6.50



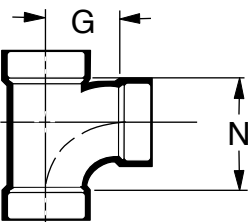
### Combo Wye and 1/8 Bend - Double (S x S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GK	GN	N
1½	526801	1	5.31	5.31	1.13	4.63
2	526802	1	5.98	6.10	1.38	5.38
3	526803	1	7.47	7.59	1.63	7.63
4	526804	1	8.69	9.00	1.88	9.25
6	526806F	1	18.18	15.38	6.18	18.38
8	526808F	1	22.50	22.50	7.00	22.50



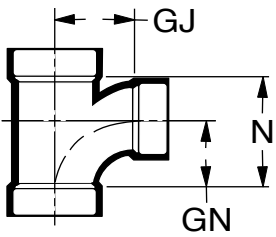
### Combo Wye and 1/8 Bend - Double Reducing (S x S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GK	GN	N
2x2x1½x1½	526825	1	5.22	5.27	1.06	5.38
3x3x1½x1½	526824	1	5.27	5.89	0.50	5.25
3x3x2x2	526826	1	5.91	6.54	0.88	6.00
4x4x2x2	526828	1	6.08	7.20	0.38	6.06
4x4x3x3	526827	1	7.61	8.29	1.06	7.63
6x6x3x3	526843F	1	9.52	10.59	0.69	7.13
6x6x4x4	526844F	1	8.46	9.97	0.69	7.13
8x8x4x4	526846F	1	21.00	15.38	7.00	22.50
8x8x6x6	526845F	1	22.25	18.75	7.00	22.50



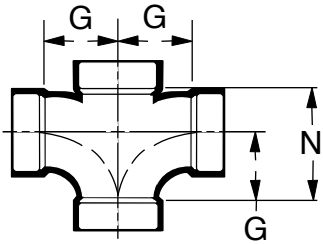
### Sanitary Tee (S x S x S)

Inch Size	Part Number	Std. Pack	G	N
1½	526151	50	1.75	2.75
2	526152	10	2.31	3.69
3	526153	15	3.06	4.88
4	526154	12	3.88	6.13
6	526156F	1	14.25	20.38



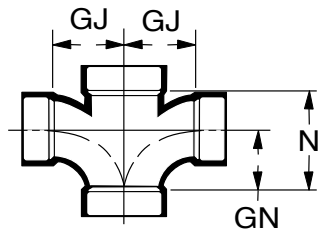
### Sanitary Tee - Reducing (S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
2x2x1½	526126	30	2.21	1.96	3.17
3x3x1½	526131	15	2.56	1.75	2.68
3x3x2	526130	20	2.88	2.13	3.31
4x4x2	526134	10	3.31	2.06	3.19
4x4x3	526136	5	3.56	3.00	4.75
6x6x3	526138F	2	6.40	3.93	6.13
6x6x4	526139	2	4.90	3.93	6.13



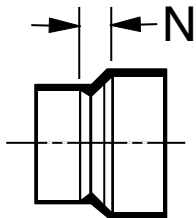
### Sanitary Tee - Double (S x S x S x S)

Inch Size	Part Number	Std. Pack	G	N
1½	526187	5	1.75	2.75
2	526186	5	2.31	3.69
4	526185	4	4.50	6.13



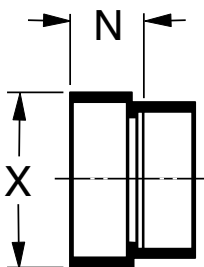
### Sanitary Tee - Double Reducing (S x S x S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	N
2x2x1½x1½	526188	2	2.19	1.94	3.13
3x3x1½x1½	526184F	2	4.48	2.13	3.31
3x3x2x2	526181	2	2.88	2.13	3.31



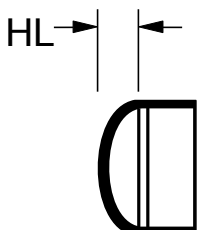
### Pipe Increaser (S x S)

Inch Size	Part Number	Std. Pack	N
1½x2	527022	40	0.53
1½x3	527023F	15	0.88
2x3	527024	15	0.88
2x4	527025	5	1.38
3x4	527026	5	0.94
3x6	527027F	1	1.03
4x6	527028F	1	1.03



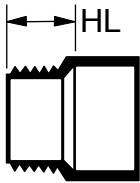
### Reducer Bushing (Spg x S)

Inch Size	Part Number	Std. Pack	N	X
2x1½	526752	30	1.61	2.38
3x1½	526762	15	1.50	3.50
3x2	526754	40	1.50	3.50
4x2	526758	15	1.13	4.50
4x3	526756	20	1.50	4.50



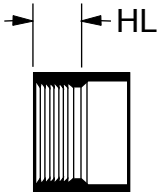
### Cap (S)

Inch Size	Part Number	Std. Pack	HL
1½	527081	35	0.53
2	527082	50	0.32
3	527083	20	0.91
4	527084	5	1.09
6	527087	2	1.56



### Male Adapter (S x MPT)

Inch Size	Part Number	Std. Pack	HL
1½	526871	50	1.18
2	526872	40	1.25
3	526873	15	1.84
4	526874	10	2.00
6	526876F	1	3.50



### Female Adapter (S x FPT)

Inch Size	Part Number	Std. Pack	HL
1½	526891	50	1.12
2	526892	50	1.15
3	526893	18	1.72
4	526894	10	1.81
6	526896	2	2.82

### Fuseal Transition Couplings



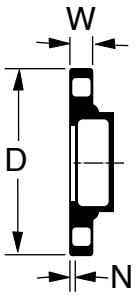
Part Number	Inch - metric
8880	1-1/2" to 53-55 mm Transition Coupling (PP to Metal)
8881	2" to 53-55 mm Transition Coupling (PP to Metal)
8882	2" to 75-77 mm Transition Coupling (PP to Metal)
8883	3" to 88-90 mm Transition Coupling (PP to Metal)
8884	4" to 102-110 mm Transition Coupling (PP to Metal)
8886	6" to 159-160 mm Transition Coupling (PP to Metal)

### Flange - DIN

Part Number	
526921M	1-1/2" Flange Hub (S) (Must Order Backing Flange PP/V)
526922M	2" Flange Hub (S) (Must Order Backing Flange PP/V)
526923M	3" Flange Hub (S) (Must Order Backing Flange PP/V)
526924M	4" Flange Hub (S) (Must Order Backing Flange PP/V)
526926M	6" Flange Hub (S) (Must Order Backing Flange PP/V)

### Flange - DIN

Part Number	
727700410	DIN Backing Flanges PP/V 50DN40
727700411	DIN Backing Flanges PP/V 63DN50
727700413	DIN Backing Flanges PP/V 90DN80
727700414	DIN Backing Flanges PP/V 110DN100
727700417	DIN Backing Flanges PP/V D160DN150 (6")
748440305	Flange gasket EPDM 42x92x3/4 50
748440306	Flange gasket EPDM 53x107x4/5 63
748440308	Flange gasket EPDM 76x142x4/5 90
748440309	Flange gasket EPDM 93x162x5/6 110
748440312	Flange gasket EPDM 135x218x6/8 160

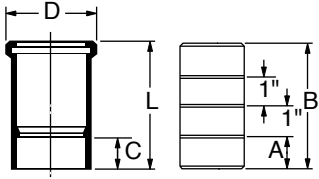


### Flange – ANSI 150lb. Pattern (S)

Inch Size	Part Number	Std. Pack	# holes	bolt hole dia.	bolt cir. dia.	D	N	W
1½	526921	10	4	0.56	3.88	5.00	0.16	0.66
2	526922	10	4	0.68	4.75	6.00	0.19	0.75
3	526923	8	4	0.75	6.00	7.50	0.22	0.94
4	526924	10	8	0.75	7.50	9.00	0.21	1.14
6*	526926	3	8	0.88	9.50	10.94	0.28	1.00

\*Van Stone Style

### Vertical/Horizontal Expansion Joint (Spg x S)



Inch Size	Part Number	Std. Pack	A	B	C	D	L
1½	527811A	1	0.97	4.09	0.75	2.65	4.10
2	527812A	1	1.19	4.53	0.88	3.15	4.50
3	527813A	1	1.59	5.31	0.94	4.64	5.25
4	527814A	1	2.09	6.34	0.94	5.78	5.69

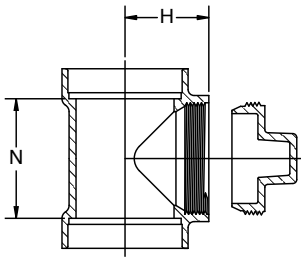
O-Ring material: EPDM

# Fuseal Cleanouts and Floor Drains

P/L 51 Fabricated (part number ends with "F")

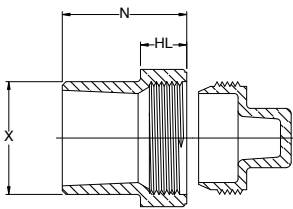
P/L 52 Molded

Material: Flame Retardant Polypropylene



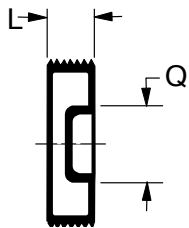
## Cleanout Tee with Plug (S x S x FT)

Inch Size	Part Number	Std. Pack	H	N
1½	526114A	5	1.82	2.12
2	526115A	15	2.13	2.74
3	526116A	5	2.63	3.75
4	526117A	10	3.38	5.00
6	526118AF	1	7.00	18.00



## Cleanout Adapter with Plug (Spg x FT)

Inch Size	Part Number	Std. Pack	HL	N	X
1½	7701A	40	0.78	2.09	1.90
2	7702A	50	0.78	2.22	2.38
3	7703A	18	1.09	2.66	3.50
4	7704A	8	1.13	2.94	4.50
6	7706A	5	1.31	2.63	6.63

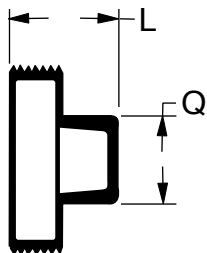


## Countersunk Plug for Cleanout (MT)

Inch Size	Part Number	Std. Pack	L	Q
3	7063	10	1.03	1.31
4	7064	5	1.16	1.63

## Plug (MT)

(Used with cleanout tees, cleanout adapters, and cleanout p-traps only)



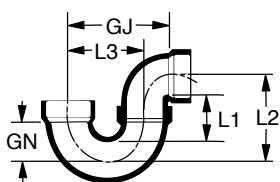
Inch Size	Part Number	Std. Pack	L	Q
1	7049	1	0.99	0.75
Used for 527201A & 527202A only				
1½	7051	120	1.56	1.00
Also used for 527203A & 527204A				
2	7052	15	1.54	1.25
3	7053	5	2.03	1.63
4	7054	5	2.16	2.00
6	7057	10	2.38	2.38

# Fuseal Traps

P/L 51 Fabricated (part number ends with "F")

P/L 52 Molded

Material: Flame Retardant Polypropylene



## P Trap (S x S)

Inch Size	Part Number	Std. Pack	GJ	GN	L1	L2	L3
1½	527201	40	4.71	1.68	2.06	3.64	3.50
2	527202	20	6.94	2.44	2.71	4.75	5.06
3	527203	10	8.88	2.79	3.41	6.43	6.75
4	527204	6	10.75	3.88	3.88	8.06	8.50

# Fuseal Fusion Accessories

P/L 07 Fusion Accessories

Standard Pack Quantities; No broken Packs



## MSA Fusion Unit

(includes (5) Cable Assembly, Bar Code Set with Tester and Metal Case)

	Part Number	Std. Pack
110v	MSA250-SE	1
220v	799 350 404 MSA250-EX Multi for Fuseal / ELGEF INSTAFLEX 125-225	1

## MSA Accessories

	Part Number	Std. Pack
Bar Code Set	MSABAR	1
Continuity Tester	TA1000	1

## MSA Fusion Cable

	Part Number	Std. Pack
Single Cable	MSA001	1
(5) Cable Assembly	MSA001A	1

## MSA Carrying Case

	Part Number	Std. Pack
Metal Case	MSA2000	1

## Fusion Collar with Plastic Clamp

6" fusion collars without plastic clamp



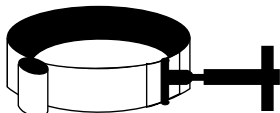
Inch Size	Part Number	Std. Pack
1½	6282	10
2	6283	10
3	6284	10
4	6285	10
6	6287	10

## Plastic Clamp



Inch Size	Part Number	Std. Pack
1½	FU1282	10
2	FU1283	10
3	FU1284	10
4	FU1285	10

## Metal Clamp



Inch Size	Part Number	Std. Pack
4	FU110	4
6	FU112	1



# Miscellaneous accessories

5311

## Tangit KS-Cleaning Tissues



Code	SP	kg	kg/m
799 298 024	8	0.380	0.380

## KS Tangit Cleaner

- Special cleaning agent for plastic fusion connections with PP, PE, PVDF and PB.



Code	SP	kg	kg/m
799 298 023	-	0.890	0.890

## PPC Plastic pipe cutter

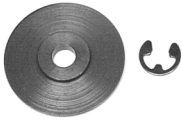
- For cutting plastic pipes d10 - d160



d-d [mm]	Article	Code	SP	kg	kg/m
10 - 63	PPC 63, s max. = 7,2mm	<b>790 109 001</b>	-	0.710	0.710
50 - 110	PPC 110, s max. = 12,7mm	<b>790 109 002</b>	-	1.400	1.400
110 - 160	PPC 160, s max. = 19,0mm	<b>790 109 003</b>	-	1.880	1.880

## Replacement cutting wheels

- for plastic pipe cutter



d-d [mm]	Article	Code	SP	kg	kg/m
10 - 63	SR 63 max. s=7,2 mm	<b>790 109 011</b>	-	0.004	0.004
50 - 110	SR 110/160 max. s=12,7 mm	<b>790 109 012</b>	-	0.015	0.015
110 - 160	SR 160 max. s=19,0 mm	<b>790 109 013</b>	-	0.023	0.023

5302

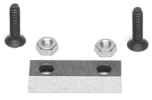
## Chamfering tool



d-d [mm]	Code	SP	kg	kg/m
25 - 63	<b>761 066 794</b>	1	0.780	0.780
75 - 110	<b>761 066 836</b>	1	0.830	0.830

5303

## Spare blades for Chamfering tool



d-d [mm]	Code	SP	kg	kg/m	
25 - 110	<b>761 066 795</b>	1	0.016	0.016	

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# General Condition of Supply of Georg Fischer Piping Systems 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

- 2.1 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 duties 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 out-standing 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 liquidated damages in the amount of 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.

## 11 Packing

- 11.1 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 (EXWORKS, 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 undertake to repair or replace at their discretion, as quickly as possible and free of charge all Products supplied which demonstrably suffer from faulty design, materials or workman-ship or from faulty operating or installation instructions.  
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](http://www.piping.georgfischer.com).  
Replaced parts shall become property of Georg Fischer.
- 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 as well as, in case of negligence, all other direct damages caused by the defective Product (damage to property and injury to or death of persons) 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

- 16.1 All cases of breach of contract and the relevant consequences as well as all rights and claims on the part of the customer, irrespective of what ground they are based, are exhaustively covered by these general conditions of supply. In particular, any claims not expressly mentioned for damages, reduction of price, termination of or withdrawal from 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 and other direct or indirect or consequential damage. This exclusion of liability, however, does not apply to unlawful intent or gross negligence on the part of Georg Fischer and in case of strict liability under applicable product liability statutes, but does apply to unlawful intent or gross negligence of persons employed or appointed by Georg Fischer to perform any of its obligations.

## 17 Severability

- 17.1 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.

# GF Piping Systems → worldwide

Our sales companies and representatives ensure local customer support in over 100 countries.

[www.piping.georgfischer.com](http://www.piping.georgfischer.com)



The technical data are not binding and not expressly warranted characteristics of the goods. They are subject to change. Our General Conditions of Sale apply.

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