

# PE 100



- Pipes
- Socket Fusion Fittings
- Butt Fusion Fittings
- Electrofusion Fittings

Pressure Ratings for PE-Fittings and PE-Pipes

	SDR11	SDR17.6
PE 80 C = 1.25	PN12.5	PN7.5
PE 80 C = 1.6	PN10	PN6
PE 100 C = 1.25	PN16	PN10
PE 100 C = 1.6	PN12.5	PN7.5

# Polyethylene PE 100 – the third Generation of polyethylene

## Pressure/temperature diagram for PE PE 100

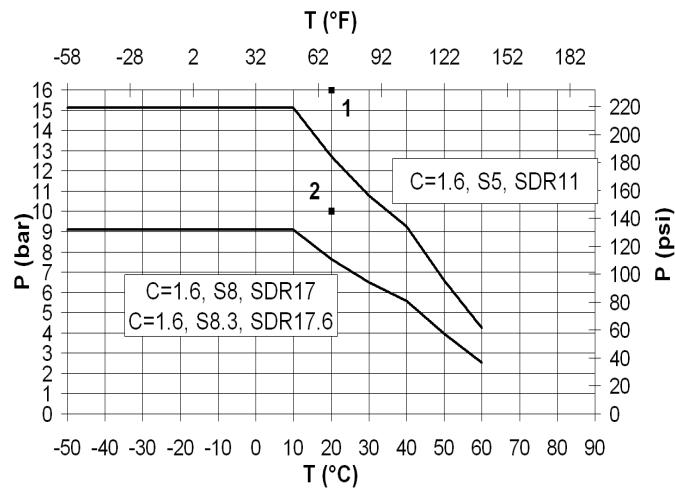
The following pressure/temperature diagram for PE100 pipes and fittings is valid for a lifetime of 25 years.

The design factor of 1.6 (respective 1.25) recommended by GF is incorporated.

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

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

In case of long-term applications at continuous pressure with temperatures above 40 °C, please contact your GF representative.



1 Design Factor C = 1.25, S5, SDR11 for 20 °C water, 50 years

2 Design Factor C=1.25, S8.3, SDR17.6 and S8, SDR17 for 20°C water, 50 years

P Permissible pressure in bar, psi

T Temperature in °C, °F

## Pressure/temperature diagram for PE PE 80

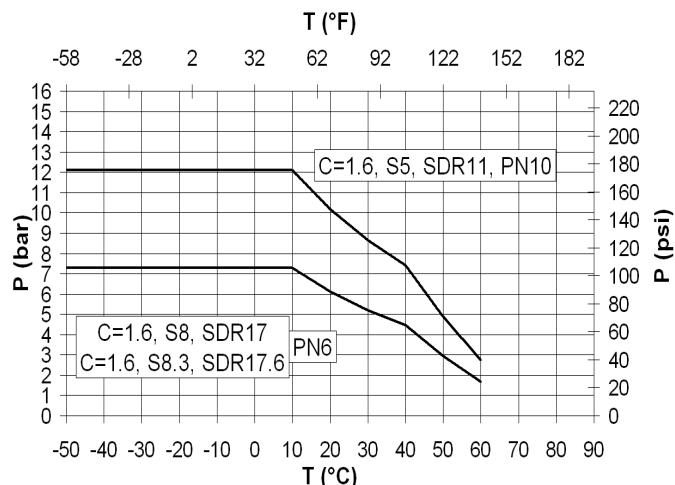
The following pressure/temperature diagram for PE80 pipes and fittings is valid for a lifetime of 25 years.

The design factor of 1.6 recommended by GF is incorporated.

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

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

In case of long-term applications at continuous pressure with temperatures above 40 °C please contact your GF representative.



P Permissible pressure in bar, psi

T Temperature in °C, °F

# Comparison of nominal pressure for SDR17 and SDR17.6

## Ascertaining the nominal pressure (PN)

According to the standard, the nominal pressure is a numeric measure of the size of a pipeline part, which refers to the mechanical properties of that pipeline part. Besides the geometric sizes such as SDR, the creep strength/dimensioning tension and the minimum design factor are also taken into consideration.

For plastic piping systems intended to carry water, the nominal pressure value indicates the maximum permitted operating pressure in bar, at a temperature of 20°C, and 50 years in water, referenced to the minimum value of the total (calculation) coefficients. It is calculated using the following equation:

$$[PN] = 10 \cdot \sigma_S / [S] = 20 \cdot \sigma_S / (SDR - 1) \quad (\sigma_S \text{ in MPa}, PN \text{ in bar})$$

## Minimum required strength (MRS):

The value of  $\sigma_{LCL}$  at 20°C and 50 years in water, rounded down to the next value in the R10 standard series of numbers.

$\sigma_{LCL}$  is understood to mean the equivalent stress ascertained for a given period and a given temperature from the time-dependent creep diagram. LCL stands for Lower Confidence Limit. The R10 standard series of numbers is a Renard standard series of numbers as per ISO 3 and ISO 497.

## Design stress ( $\sigma_S$ ):

The permitted stress for a particular application or operating conditions stated in megapascal. It is derived by dividing the MRS by coefficient C and is calculated as shown in the equation below:

$$\sigma_S = MRS / C$$

The calculated value is rounded down to the next value in the R10 standard series of numbers.

## Total operating (calculation) coefficient (C):

A total coefficient having a value greater than one, which takes into account both the operating conditions and also the characteristics of the pipeline component that have not yet been entered into the lower confidence limit  $\sigma_{LCL}$ .

If we use the above definition to calculate the relevant nominal pressure for both SDR classes, the result for a PE 100 pipe is as follows:

SDR17	SDR17.6
MRS = 10 MPa	MRS = 10 MPa
C = 1.25 (minimum factor)	C = 1.25 (minimum factor)
$\sigma = 8.0 \text{ MPa}$	$\sigma = 8.0 \text{ MPa}$
PN = 10 bar	PN = 9.6 bar

The above definitions thus produce a difference of 0.4 bar in PN, but in actual practice this does not matter, as shown below:

1.) Industrial pipelines are normally designed for a service life of 25 years. If from the time-dependent creep diagrams we ascertain for ELTEX TUB 121 or CRP 100 an equivalent stress of  $\sigma_{LCL}$  for the operating point of 25 years and 20°C, we obtain a tension of 10.6 MPa (minimum value of both PE100 materials as per manufacturer's data).

2.) If we use this tension to ascertain the dimensioning tension  $\sigma_S$ , and do not round it down, we obtain the value of 8.48 MPa.

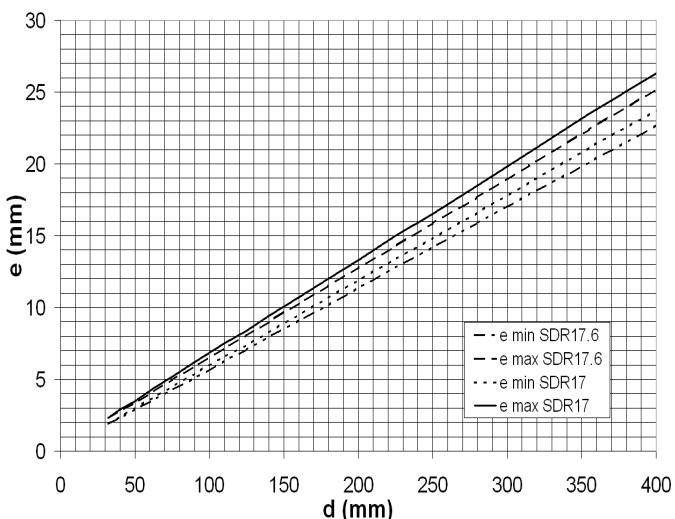
3.) Thus the actual nominal pressure in practice is:

for SDR 17 => PN = 10.6 bar and for  
SDR 17.6 => PN = 10.2 bar.

**To summarise: Both SDR classes comply with requirements for industrial applications mentioning a PN10 system.**

## Comparison of geometric dimensions

The two SDR classes differ only slightly in wall thickness, as can be seen from the diagram below. This shows that there is an area where the wall thickness complies with both requirements of both SDR classes.



d Outside pipe diameter

e Wall thickness

For butt fusion the wall thickness gap may not exceed 10 %. Looking at the differences of the wall thicknesses of SDR17 and SDR17.6 the resulting gap is much lower, that means butt fusion of both SDR's is no problem.

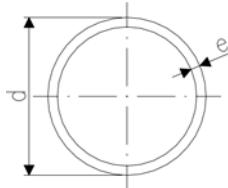


# PE Industrial Systems Pipes, Fittings, Unions, Flanges and Flange Adaptors

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# PE100 Pipes

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## Pipes, PE100 S5/SDR11

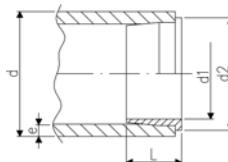
### Model:

- 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]	di [mm]	
*20	16	<b>193 017 156</b>	0.113	1,9	16.2	
*25	16	<b>193 017 157</b>	0.172	2,3	20.4	
32	16	<b>193 017 158</b>	0.274	2,9	26.2	
40	16	<b>193 017 159</b>	0.434	3,7	32.6	
50	16	<b>193 017 160</b>	0.672	4,6	40.8	
63	16	<b>193 017 161</b>	1.060	5,8	51.4	
75	16	<b>193 017 162</b>	1.480	6,8	61.4	
90	16	<b>193 017 163</b>	2.140	8,2	63.6	
110	16	<b>193 017 164</b>	3.190	10,0	90.0	
125	16	<b>193 017 165</b>	-	11,4	102.8	
140	16	<b>193 017 166</b>	5.130	12,7	114.6	
160	16	<b>193 017 167</b>	-	14,6	130.8	
180	16	<b>193 017 168</b>	8.500	16,4	147.2	
200	16	<b>193 017 169</b>	-	18,2	163.6	
225	16	<b>193 017 170</b>	-	20,5	184.0	
250	16	<b>193 017 171</b>	-	22,7	204.6	
280	16	<b>193 017 172</b>	-	25,4	229.2	
315	16	<b>193 017 173</b>	-	28,6	257.8	
355	16	<b>193 017 174</b>	32.800	32,2	290.6	
400	16	<b>193 017 175</b>	41.700	36,3	327.4	

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.

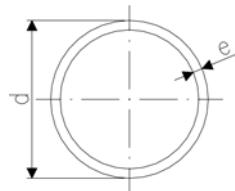
d [mm]	Code	d1 [mm]	D2 [mm]	d2 [mm]	L [mm]	e [mm]	
20	<b>733 900 006</b>	14	18	18	10	1,9	
25	<b>733 900 007</b>	18	22	23	11	2,3	

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## Pipes, PE100 S8,3/SDR17,6

### Model:

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



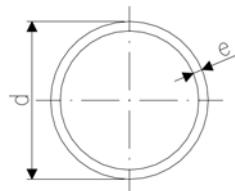
d [mm]	PN	Code	kg/m	e [mm]	di [mm]	
50	10	<b>193 017 110</b>	-	2,9	44,2	
63	10	<b>193 017 111</b>	-	3,6	55,8	
75	10	<b>193 017 112</b>	-	4,3	66,4	
90	10	<b>193 017 113</b>	-	5,1	79,8	
110	10	<b>193 017 114</b>	-	6,3	97,4	
125	10	<b>193 017 115</b>	2.690	7,1	110,8	
140	10	<b>193 017 116</b>	-	8,0	124,0	
160	10	<b>193 017 117</b>	4.390	9,1	141,8	
180	10	<b>193 017 118</b>	5.530	10,2	159,6	
200	10	<b>193 017 119</b>	-	11,4	177,2	
225	10	<b>193 017 120</b>	-	12,8	199,4	
250	10	<b>193 017 121</b>	-	14,2	221,6	
280	10	<b>193 017 122</b>	-	15,9	248,2	
315	10	<b>193 017 123</b>	-	17,9	279,2	
355	10	<b>193 017 124</b>	21.400	20,1	290,6	
400	10	<b>193 017 125</b>	27.100	22,7	354,6	

93 01 72

## Pipes, PE100 S3,2/SDR7,4

### Model:

- Dimension: DIN 8074
- Colour: RAL 9011 graphite black
- Length: Lengths of 5 m
- for socket fusion without stiffeners
- Not suitable for butt fusion

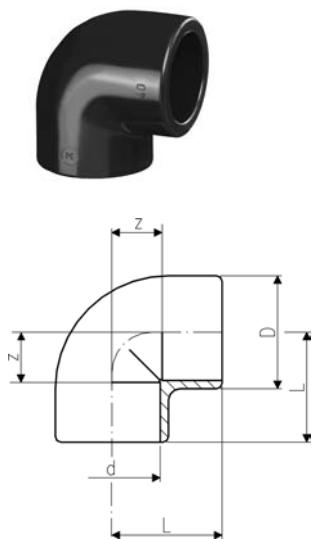


d [mm]	Code	kg/m	e [mm]	di [mm]	
20	<b>193 017 206</b>	0.156	2,8	14,4	
25	<b>193 017 207</b>	0.243	3,5	18,0	

# Fittings for Socket Fusion

33 10 01

**Elbow 90°, PE80**



d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]	
20	10	733 100 106	0.022	0.022	31	28	14	
25	10	733 100 107	0.032	0.032	36	32	16	
32	10	733 100 108	0.048	0.048	44	38	20	
40	10	733 100 109	0.080	0.080	54	44	24	
50	10	733 100 110	0.130	0.130	66	51	28	
63	10	733 100 111	0.229	0.229	82	62	35	
75	10	733 100 112	0.320	0.320	93	76	45	
90	10	733 100 113	0.502	0.502	110	88	53	
110	10	733 100 114	0.864	0.864	134	106	65	

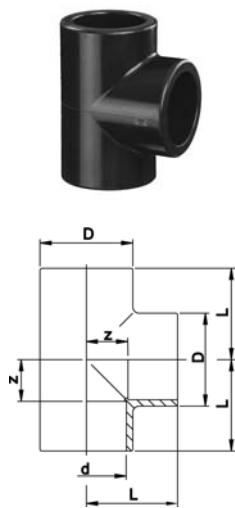
33 15 01

**Elbow 45°, PE80**



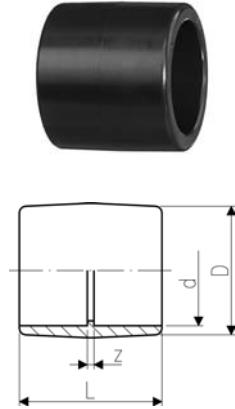
d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]	
20	10	733 150 106	0.018	0.018	31	21	7	
25	10	733 150 107	0.026	0.026	36	24	8	
32	10	733 150 108	0.038	0.038	44	28	10	
40	10	733 150 109	0.061	0.061	53	33	13	
50	10	733 150 110	0.088	0.088	64	36	13	
63	10	733 150 111	0.184	0.184	82	43	16	
75	10	733 150 112	0.232	0.232	93	51	20	
90	10	733 150 113	0.415	0.415	114	58	23	
110	10	733 150 114	0.658	0.658	134	68	27	

33 20 01

**Tee 90° equal, PE80**

d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]	
20	10	733 200 106	0.028	0.028	31	28	14	
25	10	733 200 107	0.041	0.041	36	32	16	
32	10	733 200 108	0.060	0.060	44	38	20	
40	10	733 200 109	0.101	0.101	54	44	24	
50	10	733 200 110	0.163	0.163	66	51	28	
63	10	733 200 111	0.300	0.300	82	62	35	
75	10	733 200 112	0.408	0.408	93	76	45	
90	10	733 200 113	0.747	0.747	114	88	53	
110	10	733 200 114	1.113	1.113	134	106	65	

33 91 01

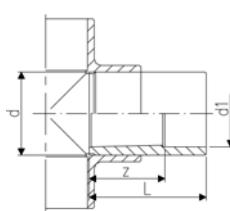
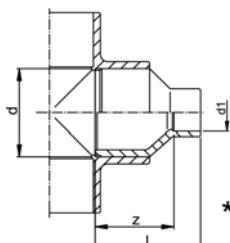
**Sockets equal, PE80**

d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	z [mm]	
20	10	733 910 106	0.014	0.014	31	35	7	
25	10	733 910 107	0.019	0.019	36	39	7	
32	10	733 910 108	0.027	0.027	44	43	7	
40	10	733 910 109	0.043	0.043	54	48	8	
50	10	733 910 110	0.077	0.077	66	54	8	
63	10	733 910 111	0.126	0.126	82	62	8	
75	10	733 910 112	0.154	0.154	93	70	8	
90	10	733 910 113	0.234	0.234	112	81	11	
110	10	733 910 114	0.428	0.428	134	96	14	

33 91 03

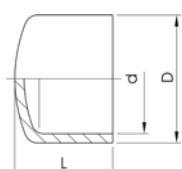
**Reducers, PE80**

- With socket fusion spigot and fusion socket metric



d [mm]	d1 [mm]	PN	Code	kg	kg/m	L [mm]	z [mm]	
25	20	10	733 910 337	0.013	0.013	39	23	
32	25	10	733 910 341	0.021	0.021	43	27	
*40	20	10	733 910 348	0.023	0.023	48	34	
*40	25	10	733 910 347	0.027	0.027	48	32	
40	32	10	733 910 346	0.032	0.032	48	30	
*50	32	10	733 910 353	0.042	0.042	54	36	
50	40	10	733 910 352	0.049	0.049	54	34	
*63	20	10	733 910 362	0.057	0.057	64	50	
*63	25	10	733 910 361	0.060	0.060	64	48	
*63	32	10	733 910 360	0.065	0.065	64	46	
*63	40	10	733 910 359	0.070	0.070	64	44	
63	50	10	733 910 358	0.086	0.086	64	41	
75	63	10	733 910 364	0.103	0.103	62	35	
*90	63	10	733 910 371	0.192	0.192	88	62	
90	75	10	733 910 370	0.146	0.146	70	39	
110	90	10	733 910 376	0.253	0.253	81	45	

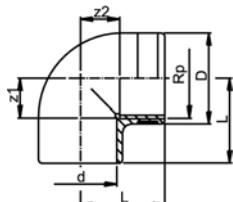
33 96 01

**End Caps, PE80**

d [mm]	PN	Code	kg	kg/m	D [mm]	L [mm]	
20	10	733 960 106	0.010	0.010	30	27	
25	10	733 960 107	0.016	0.016	36	30	
32	10	733 960 108	0.025	0.025	44	34	
40	10	733 960 109	0.038	0.038	53	38	
50	10	733 960 110	0.061	0.061	65	44	
63	10	733 960 111	0.096	0.096	80	51	
75	10	733 960 112	0.157	0.157	91	66	
90	10	733 960 113	0.272	0.272	111	77	
110	10	733 960 114	0.414	0.414	137	93	

# Adaptor Fittings for Socket Fusion

33 10 02



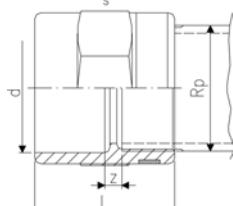
## Elbow 90°, PE80 metric - Rp

### Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- 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	kg	kg/m	D [mm]	L [mm]	z1 [mm]	z2 [mm]	
20	1/2	10	733 100 206	0.024	0.024	30	28	14	14	
25	3/4	10	733 100 207	0.033	0.033	35	32	16	16	
32	1	10	733 100 208	0.061	0.061	44	38	20	20	
40	1 1/4	10	733 100 209	0.094	0.094	54	44	24	24	

33 91 02



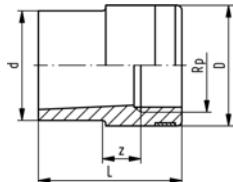
## Adaptor Sockets, PE80 metric - Rp

### Model:

- With fusion socket metric and parallel female thread Rp, reinforced
- 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	kg	kg/m	L [mm]	s [mm]	z [mm]	
20	1/2	10	733 910 206	0.020	0.020	35	32	7	
25	3/4	10	733 910 207	0.026	0.026	39	36	7	
32	1	10	733 910 208	0.043	0.043	45	46	7	
40	1 1/4	10	733 910 209	0.070	0.070	53	55	7	
50	1 1/2	10	733 910 210	0.099	0.099	54	65	9	
63	2	10	733 910 211	0.159	0.159	62	80	9	

33 91 04

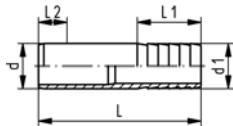


## Reducing Bushes, PE80 metric - Rp

### 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	kg	kg/m	L [mm]	z [mm]	
20	5/8	10	733 910 434	0.012	0.012	33	7	
25	1/2	10	733 910 437	0.017	0.017	37	6	
32	3/4	10	733 910 441	0.027	0.027	43	8	
40	1	10	733 910 446	0.046	0.046	49	9	
50	1 1/4	10	733 910 452	0.071	0.071	55	10	



## Hose Connectors, PE100 metric

### Model:

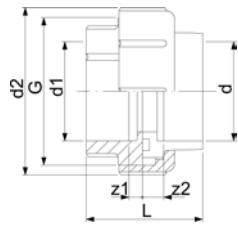
- With socket fusion spigot metric and parallel hose connection

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

# Unions for Socket Fusion

33 58 01

## Unions, PE80 metric



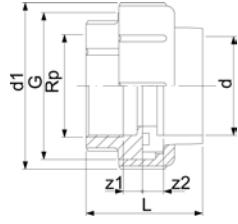
### Model:

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

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

33 58 02

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

33 58 07

## Adaptor 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)

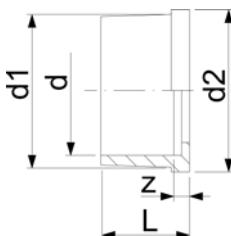
d [mm]	R [inch]	PN	Code	kg	kg/m	d1 [mm]	G [inch]	L [mm]	L1 [mm]	z [mm]	
20	1/2	10	733 580 706	0.260	0.260	46	1 1/4	62	40	6	
25	3/4	10	733 580 707	0.324	0.324	52	1 1/2	65	41	6	
32	1	10	733 580 708	0.470	0.470	64	2	71	45	6	
40	1 1/4	10	733 580 709	0.754	0.754	79	2 1/2	78	48	8	
50	1 1/2	10	733 580 710	0.781	0.781	85	2 3/4	81	43	8	
63	2	10	733 580 711	1.166	1.166	104	3 1/2	91	54	8	

34 60 01

## Union Ends, PE80

### Model:

- With fusion socket metric
- Suitable for unions, tank connectors and diaphragm valves Type 314



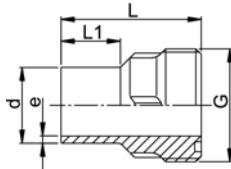
d [mm]	PN	Code	kg	kg/m	d1 [mm]	d2 [mm]	L [mm]	L1 [mm]	z [mm]	
20	10	734 600 106	0.006	0.006	28	30	19	5	5	
25	10	734 600 107	0.012	0.012	36	39	21	5	5	
32	10	734 600 108	0.015	0.015	42	45	23	6	5	
40	10	734 600 109	0.026	0.026	53	57	25	6	5	
50	10	734 600 110	0.027	0.027	59	63	28	7	5	
63	10	734 600 111	0.045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

53 64 86

## Union Bushes, PE100 SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared- (IR Plus®) compatible.
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- D75-110 with new thread geometry, now rated PN10 up to d110
- **For the dimensions d75-110 please see instructions for the installation**



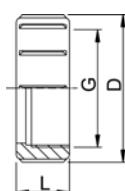
d [mm]	PN	FM	Code	kg	kg/m	G [inch]	L [mm]	L1 [mm]	e [mm]	
20	16	IR	753 648 606	0.016	0.016	1	54	26	1,9	
25	16	IR	753 648 607	0.025	0.025	1 1/4	57	26	2,3	
32	16	IR	753 648 608	0.035	0.035	1 1/2	60	25	2,9	
40	16	IR	753 648 609	0.056	0.056	2	63	25	3,7	
50	16	IR	753 648 610	0.078	0.078	2 1/4	66	25	4,6	
63	16	IR	753 648 611	0.120	0.120	2 3/4	69	25	5,8	

33 69 04

## Union Nuts, PE-GF

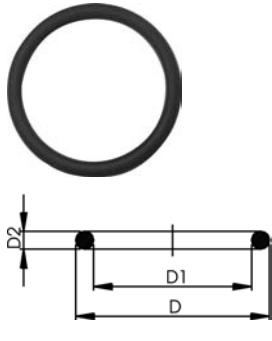
### Model:

- PE glass-fibre reinforced
- For the dimensions d75-110 please see instructions for the installation



d-d [mm]	Code	kg	kg/m	G [inch]	D [mm]	L [mm]	
20 -	733 690 406	0.029	0.029	1	48	24	
25 -	733 690 407	0.032	0.032	1 1/4	58	26	
32 -	733 690 408	0.042	0.042	1 1/2	65	28	
40 -	733 690 409	0.068	0.068	2	79	31	
50 -	733 690 410	0.097	0.097	2 1/4	91	35	
63 -	733 690 411	0.166	0.166	2 3/4	111	39	

EPDM 48 41 00  
FPM 49 41 00



## O-Ring Gaskets

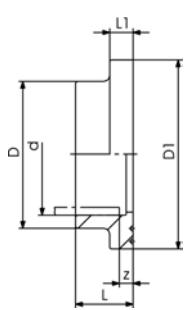
### Model:

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

d [mm]	DN [mm]	EPDM Code	FPM Code	kg	kg/m	D [mm]	D1 [mm]	D2 [mm]	
20	15	<b>748 410 006</b>	<b>749 410 006</b>	0.002	0.002	27	20	4	
25	20	<b>748 410 007</b>	<b>749 410 007</b>	0.002	0.002	35	28		
32	25	<b>748 410 008</b>	<b>749 410 008</b>	0.002	0.002	40	33	4	
40	32	<b>748 410 009</b>	<b>749 410 009</b>	0.006	0.006	51	41	5	
50	40	<b>748 410 010</b>	<b>749 410 010</b>	0.007	0.007	58	47	5	
63	50	<b>748 410 011</b>	<b>749 410 011</b>	0.010	0.010	70	60	5	

# Flange Adaptors, Flanges and Gaskets for Socket Fusion

53 79 02



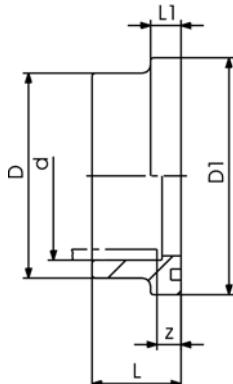
## Flange Adaptors, PE100 Jointing face flat/serrated

### Model:

- Counterpart: Flange Adaptor flat/serrated or with O-ring groove
- Connection: according to EN ISO 15494-, DIN 16963-11
- Gasket: Profile flange gasket EPDM No. 48 44 07, FPM No. 49 44 07
- Flanges: PP with steel core, No. 27 70 02, PP-V, No 27 70 04

d [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
20	10	753 790 206	0.013	0.013	27	45	19	7	5	
25	10	753 790 207	0.025	0.025	33	58	21	9	5	
32	10	753 790 208	0.037	0.037	41	68	23	10	5	
40	10	753 790 209	0.052	0.052	50	78	25	11	5	
50	10	753 790 210	0.069	0.069	61	88	28	12	5	
63	10	753 790 211	0.102	0.102	76	102	32	14	5	
75	10	753 790 212	0.163	0.163	90	122	36	16	5	
90	10	753 790 213	0.233	0.233	108	138	42	17	7	
110	10	753 790 214	0.319	0.319	131	158	48	18	7	

33 81 01

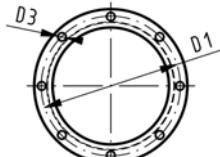
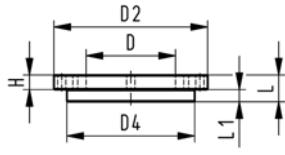


## Flange Adaptors, PE80 Jointing Face with O-ring Groove

### Model:

- Counterpart: Flange adaptor flat/serrated 53 79 02
- Gasket: O-ring No. 48 41 01 or 49 41 01
- Flanges: PP with steel core, No. 27 70 02, PP-V, No 27 70 04

d [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
20	10	733 810 106	0.008	0.008	27	34	22	9	8	
25	10	733 810 107	0.012	0.012	33	41	24	10	8	
32	10	733 810 108	0.019	0.019	41	50	26	10	8	
40	10	733 810 109	0.031	0.031	50	61	30	13	10	
50	10	733 810 110	0.044	0.044	61	73	33	13	10	
63	10	733 810 111	0.072	0.072	76	90	37	14	10	
75	10	733 810 112	0.112	0.112	90	106	40	15	10	
90	10	733 810 113	0.185	0.185	108	125	47	16	12	
110	10	733 810 114	0.283	0.283	131	150	55	18	13	



## Blanking Flange Set, PE Combined Jointing face flat and serrated metric



### Model:

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

AL: number of holes

L: length of the End Blank

d [mm]	DN [mm]	PN	Code Code	kg	kg/m	
63	50	16	753 700 611	0.674	0.674	
75	65	16	753 700 612	0.910	0.910	
90	80	16	753 700 613	1.067	1.067	
110	100	16	753 700 614	1.216	1.216	
125	100	16	753 700 615	1.678	1.678	
140	125	16	753 700 616	1.913	1.913	
160	150	16	753 700 617	2.352	2.352	
180	150	16	753 700 618	2.430	2.430	
200	200	16	753 700 619	3.495	3.495	
225	200	16	753 700 620	3.744	3.744	
250	250	16	753 700 621	5.558	5.558	
280	250	16	753 700 622	19.957	19.957	
315	300	16	753 700 623	24.569	24.569	
355	350	16	753 700 624	23.198	23.198	
400	400	16	753 700 625	30.766	30.766	
450	500	10	753 700 626	44.271	44.271	
500	500	10	753 700 627	47.165	47.165	
560	600	10	753 700 628	67.147	67.147	
630	600	10	753 700 629	68.574	68.574	

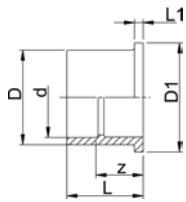
d [mm]	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	L [mm]	L1 [mm]	AL	
63	75	125	165	18	102	24	30	14	4	
75	89	145	185	18	122	26	30	16	4	
90	105	160	200	18	138	27	30	17	8	
110	125	180	220	18	158	28	30	18	8	
125	132	180	220	18	158	28	35	25	8	
140	155	210	250	18	188	30	40	25	8	
160	175	240	285	22	212	32	40	25	8	
180	180	240	285	22	212	32	45	30	8	
200	232	295	340	22	268	34	50	32	8	
225	235	295	340	22	268	34	50	32	8	
250	285	350	395	22	320	38	55	35	12	
280	291	350	395	22	320	38	60	35	12	
315	335	400	445	22	370	42	65	35	12	
355	373	460	515	22	430	40	70	40	16	
400	427	515	574	26	482	40	75	46	16	
450	510	620	684	26	585	49	80	60	20	
500	530	620	684	26	585	49	90	60	20	
560	615	725	796	30	685	58	100	60	20	
630	642	725	796	30	685	68	110	60	20	



## Outlet Flange Adaptor, PE80 Jointing Face flat

### Model:

- With fusion socket metric
- Suitable for wafer check valves Type 369
- To be installed on the outlet side of the valve



d [mm]	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	L [mm]	L1 [mm]	z [mm]	
40	32	6	733 800 009	0.060	0.060	50	78	55	11	35	
50	40	6	733 800 010	0.080	0.080	61	88	61	12	38	
63	50	6	733 800 011	0.130	0.130	76	102	69	14	41	
75	65	6	733 800 012	0.160	0.160	90	122	79	16	49	
90	80	6	733 800 013	0.270	0.270	107	138	100	17	65	
110	100	6	733 800 014	0.480	0.480	130	158	105	18	62	

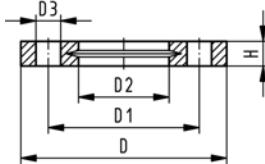
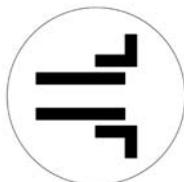
27 70 04

27 70 05

## Backing Flanges, PP-V for Socket Systems metric

### Model:

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



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

AL: number of holes

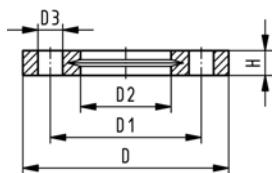
d [mm]	Inch	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC
'20		15	16	727 700 406	0.080	0.080	95	65	28	14	16	4	M12
'25		20	16	727 700 407	0.100	0.100	105	75	34	14	17	4	M12
'32		25	16	727 700 408	0.140	0.140	115	85	42	14	18	4	M12
'40		32	16	727 700 409	0.220	0.220	140	100	51	18	20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

27 70 14  
27 70 15

## Backing Flanges, PP-V for Socket Systems Inch/ANSI

### Model:

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



<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)  
AL: number of holes

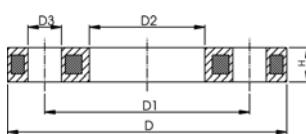
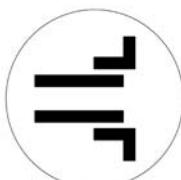
Inch	DN [mm]	PN	Code	kg	kg/m	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC	
' $\frac{1}{2}$	15	16	<b>727 701 406</b>	0.080	0.080	95	60	28	16	16	4	M12	
' $\frac{3}{4}$	20	16	<b>727 701 407</b>	0.100	0.100	105	70	34	16	17	4	M12	
'1	25	16	<b>727 701 408</b>	0.140	0.140	115	79	42	16	18	4	M12	
' $1\frac{1}{4}$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

27 70 02

## Backing Flanges, PP/Steel for Socket Systems metric

### Model:

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



<sup>1</sup> Connecting dimension: ISO 2536 DN125

\* Connecting dimension: ISO 2536

AL: number of holes

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

27 70 12

## Backing Flanges, PP/Steel for Socket Systems Inch/ANSI

### Model:

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

AL: number of holes

d [inch]	DN [mm]	d [mm]	PN	Code	kg	kg/m	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL	
1/2	15	20	16	727 701 206	0.210	0.210	60	28	16	95	12	4	
3/4	20	25	16	727 701 207	0.250	0.250	70	34	16	105	12	4	
1	25	32	16	727 701 208	0.420	0.420	79	42	16	115	16	4	
1 1/4	32	40	16	727 701 209	0.670	0.670	89	51	16	140	16	4	
1 1/2	40	50	16	727 701 210	0.860	0.860	98	62	16	150	18	4	
2	50	63	16	727 701 211	0.930	0.930	121	78	19	165	18	4	
2 1/2	65	75	16	727 701 212	1.340	1.340	140	92	19	185	18	4	
3	80	90	16	727 701 213	1.550	1.550	152	110	19	200	20	4	
4	100	110	16	727 701 214	1.810	1.810	190	133	19	229	20	8	

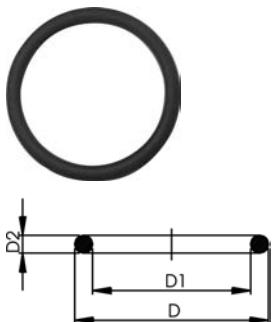
EPDM 48 41 01  
FPM 49 41 01

## O-Ring Gaskets

### Model:

- For Flange Adaptors
- Hardness approx. 65° Shore

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



EPDM 48 44 07  
FPM 49 44 07



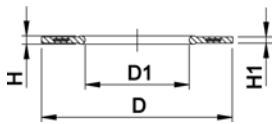
## Profile Flange Gaskets metric EPDM / FPM



### Model:

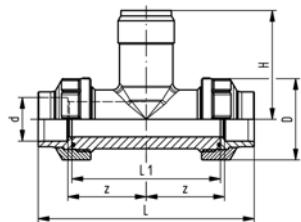
- For all GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore EPDM, 75° Shore FPM
- Centering on the inner diameter of the screw crown

di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]	
16	10	16	748 440 705	749 440 705	0.007	46	16	4	3	6 - 16	
20	15	16	748 440 706	749 440 706	0.008	51	20	4	3	10 - 20	
25	20	16	748 440 707	749 440 707	0.011	61	22	4	3	12 - 22	
32	25	16	748 440 708	749 440 708	0.014	71	28	4	3	18 - 28	
40	32	16	748 440 709	749 440 709	0.021	82	40	4	3	30 - 40	
50	40	16	748 440 710	749 440 710	0.022	92	46	4	3	36 - 46	
63	50	16	748 440 711	749 440 711	0.041	107	58	5	4	48 - 58	
75	65	16	748 440 712	749 440 712	0.055	127	69	5	4	59 - 69	
90	80	16	748 440 713	749 440 713	0.062	142	84	5	4	73 - 84	
110	100	16	748 440 714	749 440 714	0.085	162	104	6	5	94 - 104	

33 31 00



## Installation Fitting Type 310, PE80 for Socket Systems metric



### Model:

- For Signet Paddlewheel Sensors Type -X0 (104 mm)
- Body and union nut PP-H
- Union end with fusion socket PE80

d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	
20	15	10	733 310 006	733 310 036	0.136	
25	20	10	733 310 007	733 310 037	0.190	
32	25	10	733 310 008	733 310 038	0.250	
40	32	10	733 310 009	733 310 039	0.356	
50	40	10	733 310 010	733 310 040	0.510	
63	50	10	733 310 011	733 310 041	0.800	

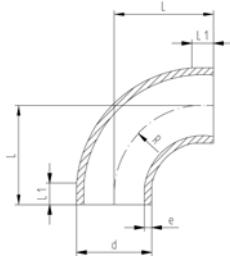
d [mm]	DN [mm]	D [mm]	z [mm]	L [mm]	L1 [mm]	H [mm]	Sensor Type	
20	15	48	50	128	90	76	X0	
25	20	58	55	142	100	78	X0	
32	25	65	60	156	110	81	X0	
40	32	79	60	160	110	85	X0	
50	40	91	65	176	120	89	X0	
63	50	105	70	194	130	95	X0	

# Fittings for Butt Fusion

## Bends 90°, PE100 S5/SDR11 - Type B

### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Bends with new geometry
- Injection moulding process optimised for PE100

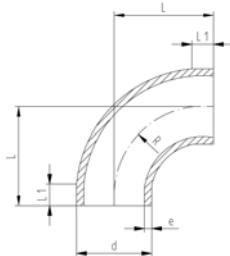


d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
20	--	753 018 681	0.005	28	5	1,9	
25	--	753 018 682	0.010	33	7	2,3	
32	--	753 018 683	0.019	41	7	2,9	
40	--	753 018 684	0.038	52	10	3,7	
50	--	753 018 685	0.069	63	10	4,6	
63	--	753 018 686	0.138	77	10	5,8	
75	IR	753 018 712	0.241	100	20	6,8	
90	IR	753 018 713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

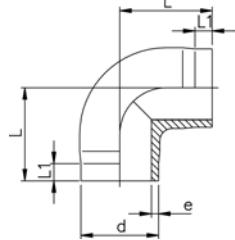
## Bends 90°, PE100 S8,3/SDR17,6 - Type B

### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Bends with new geometry
- Injection moulding process optimised for PE100

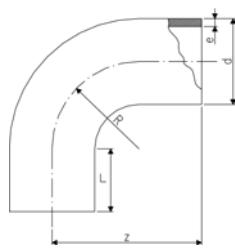


d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
75	IR	753 018 737	0.172	100	20	4,3	
90	IR	753 018 738	0.243	100	20	5,1	
110	IR	753 018 739	0.522	141	20	6,3	
125	IR	753 018 590	0.590	140	15	7,1	
140	IR	753 018 591	1.180	155	15	8,0	
160	IR	753 018 592	1.750	175	15	9,1	
180	IR	753 018 593	2.670	195	15	10,2	
200	IR	753 018 594	3.440	215	15	11,4	
225	IR	753 018 595	4.790	245	15	12,8	
250	--	753 018 521	4.700	256	48	14,2	
280	--	753 018 522	6.500	286	48	15,9	
315	--	753 018 523	9.200	321	48	17,9	
355	--	753 018 549	13.000	380	15	20,1	
400	--	753 018 550	19.700	435	25	22,7	

**Elbows 90°, PE100 S5/SDR11****Model:**

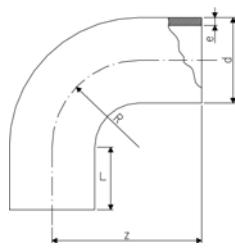
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

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

**Bends 90°, PE100 S5/SDR11 - 0.75d****Model:**

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
20	IR	753 018 706	0.007	38	23	15	1.9	
25	IR	753 018 707	0.012	42	23	19	2.3	
32	IR	753 018 708	0.022	46	22	24	2.9	
40	IR	753 018 709	0.038	51	21	30	3.7	
50	IR	753 018 710	0.066	58	21	37	4.6	
63	IR	753 018 711	0.118	66	21	45	5.8	

**Bends 90°, PE100 S8,3/SDR17,6 - 0.75d****Model:**

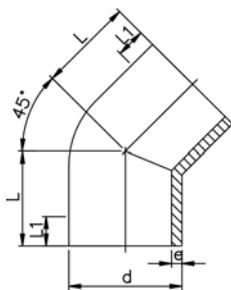
- Conventional butt-welding according to DVS 2207 part 11

d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
50	753 018 635	0.052	58	21	37	2.9	
63	753 018 636	0.084	66	21	45	3.6	

53 15 86

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

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

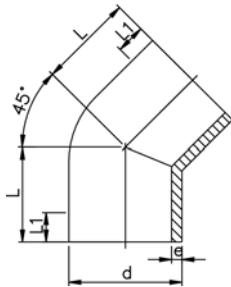


d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
20	IR	753 158 606	0.008	32	24	1,9	
25	IR	753 158 607	0.013	34	25	2,3	
32	IR	753 158 608	0.021	36	25	2,9	
40	IR	753 158 609	0.037	39	25	3,7	
50	IR	753 158 610	0.059	42	26	4,6	
63	IR	753 158 611	0.104	47	29	5,8	
75	IR	753 158 612	0.147	49	29	6,8	
90	IR	753 158 613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

53 15 85

**Elbows 45°, PE100 S8,3/SDR17,6****Model:**

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100
- Machined from S5/SDR11



d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
50	--	753 158 535	0.045	42	26	2,9	
63	--	753 158 536	0.091	47	29	3,6	
75	--	753 158 537	0.128	49	29	4,3	
90	--	753 158 538	0.208	57	34	5,1	
110	IR	753 158 539	0.398	70	43	6,3	
125	IR	753 158 540	0.570	79	48	7,1	
140	IR	753 158 541	0.825	88	55	8,0	
160	IR	753 158 542	1.190	100	60	9,1	
200	IR	753 158 544	2.300	124	75	11,4	
225	IR	753 158 545	3.200	140	85	12,8	

53 20 86

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

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100



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

53 20 85

**Tees 90° equal, PE100 S8,3/SDR17,6****Model:**

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100

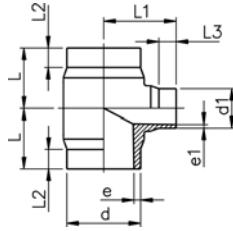


d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
50	--	753 208 535	0.090	59	26	2,9	
63	--	753 208 536	0.160	71	25	3,6	
75	--	753 208 537	0.263	85	28	4,3	
90	--	753 208 538	0.438	100	23	5,1	
110	IR	753 208 539	0.763	120	43	6,3	
125	IR	753 208 540	1.066	124	27	7,1	
140	IR	753 208 541	1.449	141	33	8,0	
160	IR	753 208 542	2.240	160	40	9,1	
180	IR	753 208 543	3.176	190	70	10,2	
200	IR	753 208 544	4.360	210	70	11,4	
225	IR	753 208 545	6.030	238	80	12,8	
250	--	753 208 546	8.610	272	90	14,2	
280	--	753 208 547	11.660	313	108	15,9	
315	--	753 208 548	16.230	348	114	17,9	
355	--	753 208 549	21.900	345	100	20,1	
400	--	753 208 550	27.700	360	102	22,7	

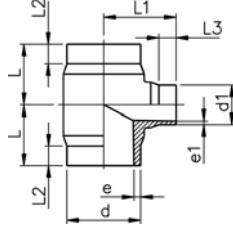
## Tees 90°, reduced, PE100 S5/SDR11

### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100



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



## Tees 90°, reduced, PE100 S8,3/SDR17,6

### Model:

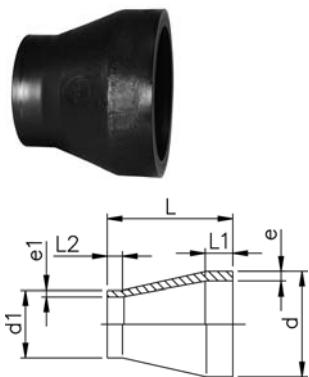
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100

\* Branch SDR11

d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	e [mm]	e1 [mm]	
*63	32	--	753 208 301	0.157	65	70	25	25	3,6	2,9	
63	50	--	753 208 302	0.158	65	70	25	25	3,6	2,9	
*75	32	--	753 208 303	0.240	70	75	25	25	4,3	2,9	
75	50	--	753 208 304	0.250	70	75	25	25	4,3	2,9	
75	63	--	753 208 305	0.257	70	75	25	25	4,3	3,6	
90	50	--	753 208 307	0.410	80	85	25	25	5,1	2,9	
90	63	--	753 208 308	0.330	80	85	25	25	5,1	3,6	
90	75	--	753 208 309	0.340	80	85	25	25	5,1	4,3	
*110	32	IR	753 208 310	0.640	90	95	30	25	6,3	2,9	
110	50	IR	753 208 311	0.650	90	95	30	25	6,3	2,9	
110	63	IR	753 208 312	0.520	90	95	30	25	6,3	3,6	
110	75	IR	753 208 313	0.524	90	95	30	25	6,3	4,3	
110	90	IR	753 208 314	0.530	90	95	30	25	6,3	5,1	
160	63	IR	753 208 321	2.150	142	135	50	30	9,1	3,6	
160	75	IR	753 208 322	2.130	142	135	50	30	9,1	4,3	
160	90	IR	753 208 323	1.590	142	135	50	30	9,1	5,1	
160	110	IR	753 208 324	1.695	142	135	50	30	9,1	6,3	
225	90	IR	753 208 338	3.430	155	165	40	30	12,8	5,1	
225	110	IR	753 208 339	3.410	155	165	40	30	12,8	6,3	
225	160	IR	753 208 341	3.440	155	165	40	30	12,8	9,1	

**Reducers, PE100 S5/SDR11****Model:**

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100



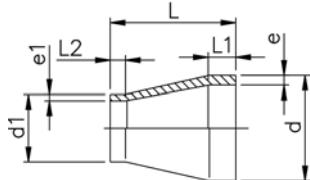
d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]	
25	20	IR	753 908 637	0.007	50	20	18	2,3	1,9	
32	20	IR	753 908 642	0.010	50	20	18	2,9	1,9	
32	25	IR	753 908 641	0.011	50	20	18	2,9	2,3	
40	20	IR	753 908 648	0.016	58	20	20	3,7	1,9	
40	25	IR	753 908 647	0.017	55	20	18	3,7	2,3	
40	32	IR	753 908 646	0.019	55	20	18	3,7	2,9	
50	25	IR	753 908 654	0.025	60	20	18	4,6	2,3	
50	32	IR	753 908 653	0.028	60	20	18	4,6	2,9	
50	40	IR	753 908 652	0.032	60	20	18	4,6	3,7	
63	32	IR	753 908 660	0.046	65	20	18	5,8	2,9	
63	40	IR	753 908 659	0.051	65	20	18	5,8	3,7	
63	50	IR	753 908 658	0.056	65	20	18	5,8	4,6	
75	40	IR	753 908 666	0.070	68	20	20	6,8	3,7	
75	50	IR	753 908 665	0.074	65	20	18	6,8	4,6	
75	63	IR	753 908 664	0.083	65	20	18	6,8	5,8	
90	63	IR	753 908 671	0.127	75	21	17	8,2	5,8	
90	75	IR	753 908 670	0.132	75	22	17	8,2	6,8	
110	75	IR	753 908 677	0.226	90	28	17	10,0	6,8	
110	90	IR	753 908 676	0.239	90	28	20	10,0	8,2	
125	110	IR	753 908 680	0.345	100	32	26	11,4	10,0	
140	110	IR	753 908 685	0.436	110	35	28	12,7	10,0	
140	125	IR	753 908 684	0.478	110	35	28	12,7	11,4	
160	110	IR	753 908 690	0.608	120	40	25	14,6	10,0	
160	140	IR	753 908 688	0.671	120	40	33	14,6	12,7	
180	90	IR	753 908 877	0.678	157	45	22	16,4	8,2	
180	110	IR	753 908 878	0.556	157	45	28	16,4	10,0	
180	125	IR	753 908 879	0.528	136	45	32	16,4	11,4	
180	140	IR	753 908 880	0.524	136	45	35	16,4	12,7	
180	160	IR	753 908 881	0.537	136	45	40	16,4	14,6	
200	160	IR	753 908 692	1.266	150	50	35	18,2	14,6	
200	180	IR	753 908 883	0.715	151	50	45	18,2	16,4	
225	110	IR	753 908 695	1.447	171	55	45	20,5	10,0	
225	160	IR	753 908 696	1.546	160	55	37	20,5	14,6	
225	180	IR	753 908 885	1.970	171	55	45	20,5	16,4	
225	200	--	753 908 697	1.737	160	55	48	20,5	18,2	
250	160	--	753 908 890	2.314	194	60	40	22,7	14,6	
250	225	--	753 908 887	2.595	182	60	55	22,7	20,5	
280	225	--	753 908 892	1.908	105	30	20	25,4	20,5	
280	250	--	753 908 891	1.390	70	30	18	25,4	22,7	
315	225	--	753 908 897	2.797	130	30	30	28,6	20,5	
315	250	--	753 908 896	2.370	100	30	20	28,6	22,7	
315	280	--	753 908 895	1.590	63	30	18	28,6	25,4	
355	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	



## Reducers, PE100 S8,3/SDR17,6

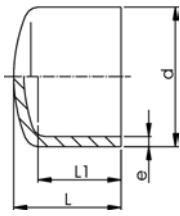
### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus®) compatible. Please choose fusion parameters: PE100



d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	L2 [mm]	e [mm]	e1 [mm]	
50	40	--	753 908 926	0.010	55	12	12	2,9	2,3	
63	40	--	753 908 927	0.020	65	16	12	3,6	2,3	
63	50	--	753 908 928	0.020	65	16	12	3,6	2,9	
75	40	--	753 908 904	0.041	71	19	12	4,3	2,3	
75	50	--	753 908 903	0.042	71	19	12	4,3	2,9	
75	63	--	753 908 902	0.039	71	19	16	4,3	3,6	
90	63	--	753 908 906	0.074	80	22	16	5,1	3,6	
90	75	--	753 908 905	0.062	80	22	19	5,1	4,3	
110	75	--	753 908 909	0.108	97	28	19	6,3	4,3	
110	90	--	753 908 908	0.097	97	28	22	6,3	5,1	
125	110	IR	753 908 912	0.151	108	32	28	7,1	6,3	
140	110	IR	753 908 917	0.144	115	35	28	8,0	6,3	
140	125	IR	753 908 916	0.150	115	35	32	8,0	7,1	
160	110	IR	753 908 922	0.287	124	40	28	9,1	6,3	
160	140	IR	753 908 920	0.245	124	40	35	9,1	8,0	
180	90	IR	753 908 975	0.445	157	45	22	10,2	5,1	
180	110	IR	753 908 976	0.367	157	45	28	10,2	6,3	
180	125	IR	753 908 977	0.347	136	45	32	10,2	7,1	
180	140	IR	753 908 978	0.344	136	45	35	10,2	8,0	
180	160	IR	753 908 979	0.351	136	45	40	10,2	9,1	
200	160	IR	753 908 931	0.835	151	50	40	11,4	9,1	
200	180	IR	753 908 981	0.467	151	50	45	11,4	10,2	
225	110	IR	753 908 938	1.295	160	55	35	12,8	6,3	
225	160	IR	753 908 933	0.620	171	55	40	12,8	9,1	
225	180	IR	753 908 985	0.601	171	55	45	12,8	10,2	
225	200	IR	753 908 932	0.614	171	55	50	12,8	11,4	
250	160	--	753 908 939	0.975	194	60	40	14,2	9,1	
250	225	--	753 908 937	0.681	182	60	55	14,2	12,8	
280	225	--	753 908 944	1.180	105	30	20	15,9	12,8	
280	250	--	753 908 943	0.858	70	30	18	15,9	14,2	
315	225	--	753 908 950	1.715	130	30	20	17,9	12,8	
315	250	--	753 908 949	1.446	100	30	20	17,9	14,2	
315	280	--	753 908 999	1.047	63	30	18	17,9	15,9	
355	250	--	753 908 859	3.000	130	54	40	20,1	14,2	
355	280	--	753 908 858	2.700	120	53	40	20,1	15,9	
355	315	--	753 908 857	2.400	110	53	40	20,1	17,9	
400	315	--	753 908 872	3.600	120	50	40	22,7	17,9	
400	355	--	753 908 871	3.100	110	51	40	22,7	20,1	

## End Caps, PE100 S5/SDR11

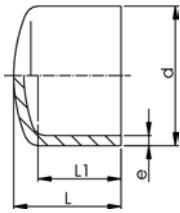


### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	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	

## End Caps, PE100 S8,3/SDR17,6

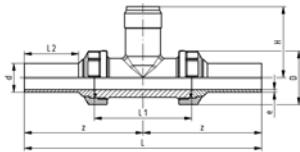


### Model:

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared-(IR Plus<sup>®</sup>) compatible. Please choose fusion parameters: PE100

d [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
50	--	753 968 910	0.040	75	53	2,9	
63	--	753 968 911	0.070	85	58	3,6	
75	--	753 968 912	0.045	90	60	4,3	
90	--	753 968 913	0.073	105	70	5,1	
110	IR	753 968 914	0.118	120	80	6,3	
125	IR	753 968 915	0.176	50	25	7,1	
140	IR	753 968 916	0.194	60	30	8,0	
160	IR	753 968 917	0.408	76	40	9,1	
180	IR	753 968 918	0.500	125	88	10,2	
200	IR	753 968 919	0.730	100	50	11,4	
225	IR	753 968 920	0.965	103	60	12,8	
250	--	753 968 921	2.400	205	130	14,2	
280	--	753 968 922	3.400	230	139	15,9	
315	--	753 968 923	4.500	255	150	17,9	
355	--	753 968 924	6.500	280	165	20,1	
400	--	753 968 925	9.300	310	180	22,7	

# Installation Fitting Type 318, PE100 for Butt Fusion Systems metric

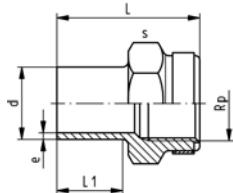

**Model:**

- For Signet Paddlewheel Sensors Type -X0 (104 mm)
- Body and union nut PP-H
- Union end with butt fusion spigot PE100

d [mm]	DN [mm]	PN	FM	EPDM Code	FPM Code	kg	
20	15	10	IR	753 318 006	753 318 036	0.136	
25	20	10	IR	753 318 007	753 318 037	0.190	
32	25	10	IR	753 318 008	753 318 038	0.250	
40	32	10	IR	753 318 009	753 318 039	0.356	
50	40	10	IR	753 318 010	753 318 040	0.510	
63	50	10	IR	753 318 011	753 318 041	0.800	

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

# Adaptor Fittings for Butt Fusion

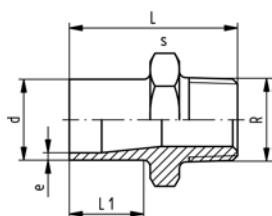


## Adaptor Sockets, PE100 metric - Rp

### 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 PE

d [mm]	Rp [inch]	FM	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]	
20	1/2	IR	<b>753 910 266</b>	0.018	48	23	32	1,9	
25	3/4	IR	<b>753 910 267</b>	0.022	50	23	36	2,3	
32	1	IR	<b>753 910 268</b>	0.039	54	23	46	2,9	
40	1 1/4	IR	<b>753 910 269</b>	0.068	56	23	55	3,7	
50	1 1/2	IR	<b>753 910 270</b>	0.087	60	23	65	4,6	
63	2	IR	<b>753 910 271</b>	0.140	62	23	80	5,8	

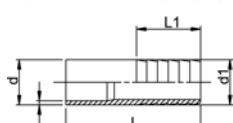


## Adaptor Nipples, PE100 metric - R

### 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 PE

d [mm]	R [inch]	Code	kg	L [mm]	L1 [mm]	s [mm]	e [mm]	
20	1/2	<b>753 910 556</b>	0.014	51	23	32	1,9	
25	3/4	<b>753 910 557</b>	0.026	52	23	36	2,3	
32	1	<b>753 910 558</b>	0.029	55	23	46	3,0	
40	1 1/4	<b>753 910 559</b>	0.043	58	23	55	3,7	
50	1 1/2	<b>753 910 560</b>	0.064	60	23	65	4,6	
63	2	<b>753 910 561</b>	0.140	67	26	80	5,8	

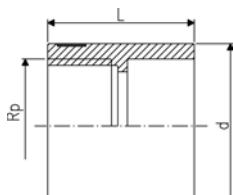


## Hose Connector, PE100 metric

### Model:

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

d [mm]	d1 [mm]	FM	Code	kg	L [mm]	L1 [mm]	e [mm]	
20	20	IR	<b>753 968 606</b>	0.008	64	27	1,9	
25	25	IR	<b>753 968 607</b>	0.013	75	36	2,3	
32	32	IR	<b>753 968 608</b>	0.021	82	36	2,9	
40	40	IR	<b>753 968 609</b>	0.034	84	42	3,7	
50	50	IR	<b>753 968 610</b>	0.056	90	48	4,6	
63	60	IR	<b>753 968 611</b>	0.095	100	50	5,8	

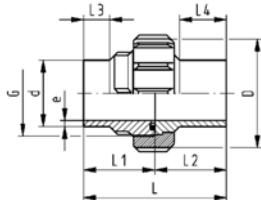


## PE Adaptor Female thread

- PE 80 SDR 11 (ISO S5)**
- 5 bar Gas / 12,5 bar Water
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- For ELGEF® Plus Branch Saddle (53 131 000) d 63 - 400 mm, pipe SDR 11, d 75 - 400 mm, pipe SDR 17
- Parallel female thread

d [mm]	Rp [inch]	Code	kg	L [mm]	
63	1 1/2	<b>173 281 925</b>	0.096	54	

# Unions for Butt Fusion



## Unions, PE100 S5/SDR11

*New*

### Model:

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

d [mm]	PN	FM	EPDM Code	FPM Code	kg				
20	16	IR	753 518 606	753 528 606	0.042				
25	16	IR	753 518 607	753 528 607	0.052				
32	16	IR	753 518 608	753 528 608	0.083				
40	16	IR	753 518 609	753 528 609	0.151				
50	16	IR	753 518 610	753 528 610	0.196				
63	16	IR	753 518 611	753 528 611	0.364				
75	10	IR	753 518 612	753 528 612	0.520				
90	10	IR	753 518 613	753 528 613	0.540				
110	10	IR	753 518 614	753 528 614	0.760				
d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	e [mm]	
20	48		1	107	54.0	53.0	26	38	1,9
25	58		1 1/4	113	57.0	56.0	26	42	2,3
32	65		1 1/2	119	60.0	59.0	25	41	3,0
40	79		2	126	63.0	63.0	25	42	3,7
50	91		2 1/4	131	65.5	65.5	25	44	4,6
63	111		2 3/4	137	69.0	68.0	25	45	5,8
75	135	S107,5x3,6	132	66.0	65.5	24	34	6,8	
90	135	S107,5x3,6	131	65.5	65.5	24	45	8,2	
110	158	S127,5x3,6	131	65.5	65.5	25	40	10,0	



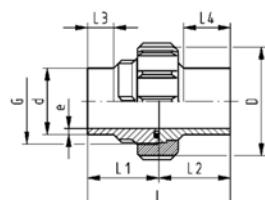
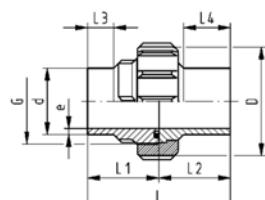
## Unions, PE100 S8,3/SDR17,6

*New*

### Model:

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

d [mm]	PN	FM	EPDM Code	FPM Code	kg		
75	10	--	753 518 412	753 528 412	0.476		
90	10	--	753 518 413	753 528 413	0.483		
110	10	IR	753 518 414	753 528 414	0.663		
d [mm]	D [mm]	G [inch]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	
75	135	S107,5x3,6	132	66	24	4,3	
90	135	S107,5x3,6	131	66	24	5,1	
110	158	S127,5x3,6	131	66	5	6,3	



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

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

## Caution

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



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

## Tip

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

- ② For the dimensions d 90 and d 110 we advise fusing the complete union, if possible (or slide the union nut to the collar of the union end) because after fusion the union nut cannot be slid over the fusion bead. (Fig. 1)
- ③ For design reasons, it is theoretically possible to combine different nominal diameters of union ends and nuts. To make sure combinations are technically correct, you can find the code numbers of the single parts and spare parts for each union in the Tables 1-3.

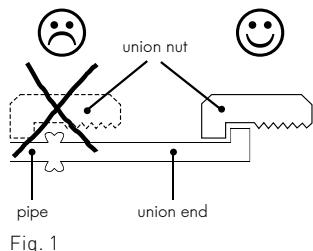


Fig. 1

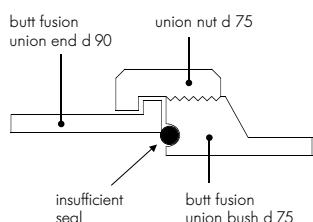


Fig. 2

## Caution

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

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

## Markings on the union nuts

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

SF/MS 75 specified for socket fusion d 75

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

SF/MS 90 specified socket fusion d 90

BF/ST 110 specified butt fusion d 110

110 specified for socket fusion d 110

## Tip

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

# Selection tables for single parts and spare parts

-  Butt fusion
-  Socket fusion

Table 1

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

d	BF/ST	SF/MS	SDR	PN	Code union end	Code union bush	Code union nut*
75			11	10	727 608 512	727 648 512	727 690 422
			17.6	6	727 608 412	727 648 412	727 690 422
			—	10	727 600 112	727 640 172	727 690 422
			11	10	727 608 513	727 648 513	727 690 422
			17.6	6	727 608 413	727 648 413	727 690 422
			—	10	727 600 113	727 640 173	727 690 423
90			11	10	727 608 514	727 648 514	727 690 423
			17.6	6	727 608 414	727 648 414	727 690 423
			—	10	727 600 114	727 640 174	727 690 424
110			11	10	727 608 515	727 648 515	727 690 425
			17.6	6	727 608 415	727 648 415	727 690 425
			—	10	727 600 115	727 640 175	727 690 426

Table 2

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

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

Table 3

O-Rings for PP-H, PE 100

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

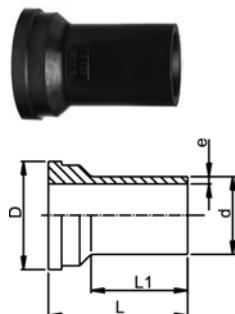
\* Union nuts overlap several dimensions

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

## Union Ends, PE100 SDR11

**Model:**

- Suitable for unions, tank connectors and diaphragm valves Type 314
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared- (IR Plus®) compatible.
- **For the dimensions d75-110 please see instructions for the installation**



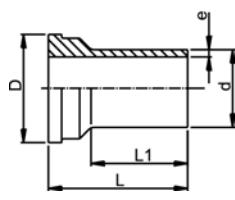
d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]	
20	16	IR	753 608 606	0.011	30	54	38	1,9	
25	16	IR	753 608 607	0.018	39	57	42	2,3	
32	16	IR	753 608 608	0.027	45	60	41	2,9	
40	16	IR	753 608 609	0.045	57	63	42	3,7	
50	16	IR	753 608 610	0.062	63	66	44	4,6	
63	16	IR	753 608 611	0.100	78	69	45	5,8	
75	10	IR	753 608 612	0.147	101	66	34	6,8	
90	10	IR	753 608 613	0.156	101	66	45	8,2	
110	10	IR	753 608 614	0.226	121	66	40	10,0	



## Union Ends, PE100 SDR17,6

**Model:**

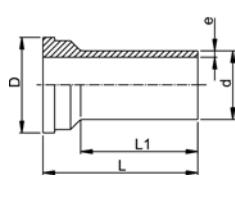
- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared- (IR Plus®) compatible.
- **For the dimensions d75-110 please see instructions for the installation**



## Union Ends long, PE100

**Model:**

- For butt-, IR Plus® and electro fusion
- Suitable for unions, tank connectors and diaphragm valves Type 314

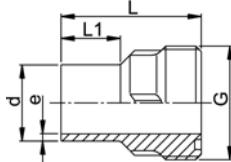


d [mm]	PN	FM	Code	kg	D [mm]	L [mm]	L1 [mm]	e [mm]	
20	16	IR	753 608 616	0.011	30	67	52	1,9	
25	16	IR	753 608 617	0.018	39	71	53	2,3	
32	16	IR	753 608 618	0.027	45	73	55	2,9	
40	16	IR	753 608 619	0.045	57	81	60	3,7	
50	16	IR	753 608 620	0.062	63	87	66	4,6	
63	16	IR	753 608 621	0.100	78	93	70	5,8	

## Union Bushes, PE100 SDR11

**Model:**

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared- (IR Plus®) compatible.
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- D75-110 with new thread geometry, now rated PN10 up to d110
- **For the dimensions d75-110 please see instructions for the installation**

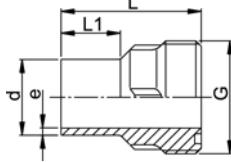


d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]	
20	16	IR	753 648 606	0.016	1	54	26	1,9	
25	16	IR	753 648 607	0.025	1 1/4	57	26	2,3	
32	16	IR	753 648 608	0.035	1 1/2	60	25	2,9	
40	16	IR	753 648 609	0.056	2	63	25	3,7	
50	16	IR	753 648 610	0.078	2 1/4	66	25	4,6	
63	16	IR	753 648 611	0.120	2 3/4	69	25	5,8	
75	10	IR	753 648 612	0.183	S107,5x3,6	66	24	6,8	
90	10	IR	753 648 613	0.195	S107,5x3,6	66	24	8,2	
110	10	IR	753 648 614	0.275	S127,5x3,6	66	25	10	

## Union Bushes, PE100 SDR17,6

**Model:**

- Conventional butt-welding according to DVS 2207 part 11
- IR = Infrared- (IR Plus®) compatible.
- Gasket: O-Ring EPDM No. 48 41 00, FPM No. 49 41 00
- D75-110 with new thread geometry, now rated PN10 up to d110
- **For the dimensions d75-110 please see instructions for the installation**



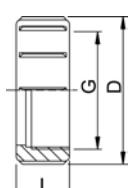
d [mm]	PN	FM	Code	kg	G [inch]	L [mm]	L1 [mm]	e [mm]	
75	10	--	753 648 412	0.161	S107,5x3,6	66	24	4,3	
90	10	--	753 648 413	0.164	S107,5x3,6	66	24	5,1	
110	10	IR	753 648 414	0.221	S127,5x3,6	66	25	6,3	

## Union Nuts, PE-GF

**Model:**

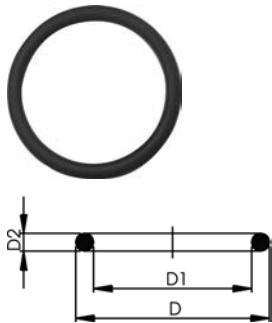
- PE glass-fibre reinforced
- For the dimensions d75-110 please see instructions for the installation

\* PP glass fibre reinforced



d-d [mm]	Code	kg	G [inch]	D [mm]	L [mm]	
20 -	733 690 406	0.029	1	48	24	
25 -	733 690 407	0.032	1 1/4	58	26	
32 -	733 690 408	0.042	1 1/2	65	28	
40 -	733 690 409	0.068	2	79	31	
50 -	733 690 410	0.097	2 1/4	91	35	
63 -	733 690 411	0.166	2 3/4	111	39	
*75 - 90	727 690 442	0.202	S107,5x3,6	135	40	
*90 - 110	727 690 443	0.289	S127,5x3,6	158	43	

EPDM 48 41 00  
FPM 49 41 00

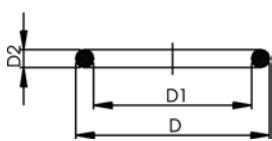


## O-Ring Gaskets

### Model:

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

d [mm]	DN [mm]	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	D2 [mm]	
20	15	748 410 006	749 410 006	0.002	27	20	4	
25	20	748 410 007	749 410 007	0.002	35	28		
32	25	748 410 008	749 410 008	0.002	40	33	4	
40	32	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	0.010	70	60	5	



## O-Ring Gasket, FPM black

### Model:

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

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

# Flange Adaptors, Flanges and Gaskets for Butt Fusion



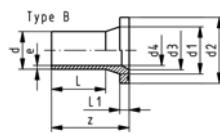
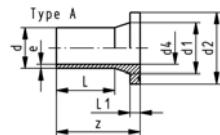
## Flange Adaptor LS, PE100 SDR11 Combined Jointing Face: Flat and serrated



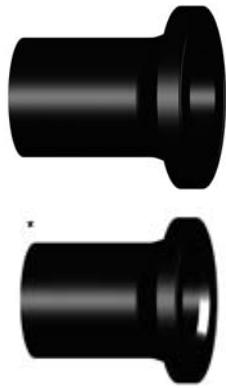
### Model:

- For butt-, IR Plus® and electro fusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d315, suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 10 bar Gas / 16 bar Water

\* Type B with chamfer



d [mm]	DN [mm]	FM	Code	kg	z [mm]	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	e [mm]	
20	15	IR	753 800 006	0.022	85	27	45		16	41	7	1.9	
25	20	IR	753 800 007	0.034	85	33	58		20	41	9	2.3	
32	25	IR	753 800 008	0.051	85	40	68		26	44	10	3.0	
40	32	IR	753 800 009	0.076	85	50	78		32	49	11	3.7	
50	40	IR	753 800 010	0.107	104	61	88		40	55	12	4.6	
63	50	IR	753 800 011	0.174	98	75	102		51	65	14	5.8	
*75	65	IR	753 800 012	0.301	125	89	122	66	61	75	16	6.8	
*90	80	IR	753 800 013	0.441	140	105	138	78	73	85	17	8.2	
*110	100	IR	753 800 014	0.685	160	125	158	100	90	90	18	10.0	
*125	100	IR	753 800 015	0.836	170	132	158	114	102	95	25	11.4	
*140	125	IR	753 800 016	1.295	200	155	188	127	114	92	25	12.7	
*160	150	IR	753 800 017	1.644	200	175	212	151	130	110	25	14.6	
*180	150	IR	753 800 018	1.873	200	180	212	158	147	115	30	16.4	
*200	200	IR	753 800 019	2.758	200	232	268	203	163	120	32	18.2	
*225	200	IR	753 800 020	2.972	200	235	268	210	184	130	32	20.5	
*250	250		753 800 021	4.535	220	285	320	245	204	130	35	22.7	
*280	250		753 800 022	4.925	220	291	320	265	229	139	35	25.4	
*315	300		753 800 023	6.393	230	335	370	300	257	150	35	28.6	
*355	350		753 800 024	10.400	250	373	430	340	290	165	40	32.3	
*400	400		753 800 025	14.600	280	427	482	385	327	180	46	36.4	
*450	500		753 800 026	24.800	333	514	585	400	368	195	60	40.9	
*500	500		753 800 027	27.400	350	530	585	440	409	212	60	45.5	
*560	600		753 800 028	38.000	365	615	685	490	458	230	60	50.9	
*630	600		753 800 029	42.300	385	642	685	545	515	250	60	57.3	



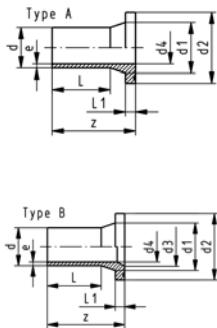
## Flange Adaptor LS, PE100 SDR11 Combined Jointing Face: Flat and serrated



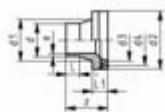
### Model:

- For butt-, IR Plus® and electro fusion
- Suitable for flange connections to **ANSI/ASME B 16.5**
- Suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 10 bar Gas / 16 bar Water

\* Type B with chamfer



d [mm]	DN [mm]	FM	Code	kg	z [mm]	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	e [mm]	
25	20	IR	753 800 057	0.031	85	33	54			20	41	9	2.3
32	20	IR	753 800 058	0.046	85	40	63			26	44	10	3.0
40	20	IR	753 800 059	0.070	85	50	73			32	49	11	3.7
50	20	IR	753 800 060	0.098	85	61	82			40	55	12	4.6
90	20	IR	753 800 063	0.423	140	105	133			73	85	17	8.2



## Flange Adaptors, PE100, S5/SDR11 Jointing Face, combination serrated / flat metric for Butterfly Valves

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- Suitable for most common butterfly valves
- Chamfered and ready for use
- Including spacer and O-Ring EPDM



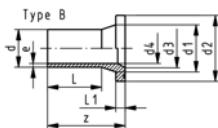
d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	z [mm]	L [mm]	L1 [mm]	e [mm]	
355	350	753 798 824	7.800	373	430	346	156	40	75	32,2	
400	400	753 798 825	10.700	427	482	404	176	50	82	36,3	



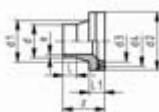
## Flange Adaptors, PE100 S5/SDR11 Jointing Face, combination serrated / flat metric

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- Up to d315, suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 10 bar Gas / 16 bar Water



d [mm]	DN [mm]	Code	kg	z [mm]	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	e [mm]	
250	250	<b>753 798 826</b>	2.420	120	285	320	245	204	45	35	22,7	
280	250	<b>753 798 827</b>	2.800	115	291	320	265	229	70	35	25,4	
315	300	<b>753 798 828</b>	3.350	120	335	370	300	257	55	35	28,6	
355	350	<b>753 798 829</b>	7.800	118	373	430	340	290	40	40	32,2	
400	400	<b>753 798 830</b>	10.700	140	427	482	385	327	55	46	36,3	
450	500	<b>753 798 831</b>	12.550	138	514	585	400	368	44	60	40,9	
500	500	<b>753 798 832</b>	11.780	138	530	585	440	409	48	60	45,4	
560	600	<b>753 798 833</b>	-	135	615	684	490	458	20	60	50,8	
630	600	<b>753 798 834</b>	-	135	642	684	545	516	40	60	57,2	



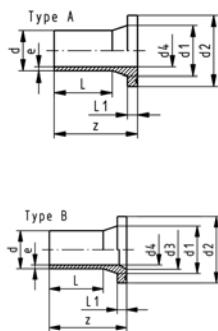
## Flange Adaptor, PE100, S8.3/SDR17/17.6 Jointing face, combination serrated / flat metric

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- Suitable for most common butterfly valves
- Chamfered and ready for use
- Including spacer and O-Ring EPDM



d [mm]	DN [mm]	Code	kg	d1 [mm]	d2 [mm]	d3 [mm]	z [mm]	L [mm]	L1 [mm]	e [mm]	
355	350	<b>753 798 849</b>	6.000	373	430	346	120	30	30	20,1	
400	400	<b>753 798 850</b>	8.100	427	482	404	120	42	33	22,7	



## Flange Adaptors, PE100 S8,3/SDR 17/17.6 Jointing Face, combination serrated / flat metric

### Model:

- Conventional butt-welding according to DVS 2207 part 1
- Up to d315, suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 5 bar Gas / 10 bar Water

\* Type B with chamfer

<b>d</b> [mm]	<b>DN</b> [mm]	<b>Code</b>	<b>kg</b>	<b>z</b> [mm]	<b>d1</b> [mm]	<b>d2</b> [mm]	<b>d3</b> [mm]	<b>d4</b> [mm]	<b>L</b> [mm]	<b>L1</b> [mm]	<b>e</b> [mm]	
*250	250	<b>753 798 851</b>	1.830	120	285	320	245	220	56	25	14,8	
*280	250	<b>753 798 852</b>	1.830	120	291	320	265	246	68	25	16,6	
*315	300	<b>753 798 853</b>	1.830	120	335	370	300	277	60	25	18,7	
*355	350	<b>753 798 854</b>	6.000	120	373	430	340	312	55	30	21,1	
*400	400	<b>753 798 855</b>	8.100	140	427	482	385	352	67	33	23,7	
450	500	<b>753 798 856</b>	9.070	140	514	585		396	60	46	26,7	
500	500	<b>753 798 857</b>	7.870	140	530	585		440	45	46	29,7	
560	600	<b>753 798 858</b>	12.310	140	615	685		493	46	50	33,2	
630	600	<b>753 798 859</b>	10.520	140	642	685		555	60	50	37,4	

# Flange Adaptor LS, PE100 SDR17/17.6

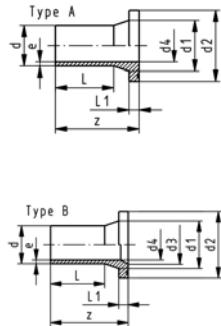
**Combined Jointing Face:  
Flat and serrated**



**Model:**

- For butt-, IR Plus® and electro fusion
- Suitable for flange connections to metric and ANSI B16.5
- Up to d315, suitable for butterfly valve type 567, 568 and 037
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 5 bar Gas / 10 bar Water

\* Type B with chamfer



d [mm]	DN [mm]	FM	Code	kg	z [mm]	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	L [mm]	L1 [mm]	e [mm]	
50	40	IR	753 800 085	0.110	104	61	88		44	55	12	3.0	
63	50	IR	753 800 086	0.143	120	75	102		55	65	14	3.8	
75	65	IR	753 800 087	0.246	130	89	122		66	75	16	4.5	
90	80	IR	753 800 088	0.351	140	105	138		79	85	17	5.4	
110	100	IR	753 800 089	0.531	160	125	158		96	90	18	6.6	
*125	100	IR	753 800 090	0.629	170	132	158	114	110	95	25	7.4	
*140	125	IR	753 800 091	0.973	200	155	188	127	123	92	25	8.3	
*160	150	IR	753 800 092	1.257	200	175	212	158	141	110	25	9.5	
180	150	IR	753 800 093	1.364	200	180	212		158	115	30	10.7	
*200	200	IR	753 800 094	2.212	200	232	268	203	176	120	32	11.9	
*225	200	IR	753 800 095	2.233	200	235	268	210	198	130	32	13.4	
*250	250		753 800 096	3.595	220	285	320	245	220	130	35	14.8	
*280	250		753 800 097	3.355	220	291	320	265	246	139	35	16.6	
*315	300		753 800 098	5.320	230	335	370	308	277	150	35	18.7	
*355	350		753 800 099	7.300	250	373	430	340	312	165	40	21.1	
*400	400		753 800 100	10.300	280	427	482	385	352	180	46	23.7	
450	500		753 800 101	15.800	333	514	585		396	195	60	26.7	
500	500		753 800 102	19.100	350	530	585		440	212	60	29.7	
560	600		753 800 103	27.500	365	615	685		493	230	60	33.2	
630	600		753 800 104	30.000	385	642	685		555	250	60	37.4	



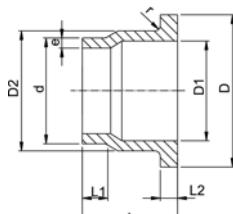
# Outlet Flange Adaptors, PE80 S5/SDR11

**Model:**

- Conventional butt-welding according to DVS 2207 part 11
- Suitable for wafer check valves Type 369

**Attention:**

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



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



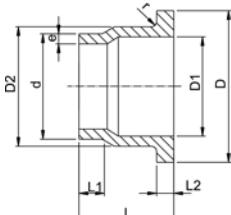
## Outlet Flange Adaptors, PE80 S8,3/SDR17,6

### Model:

- Conventional butt-welding according to DVS 2207 part 11
- Suitable for wafer check valves Type 369

### Attention:

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



d [mm]	DN [mm]	Code	kg	D [mm]	D1 [mm]	D2 [mm]	L [mm]	L1 [mm]	L2 [mm]	e [mm]	r [mm]	
40	32	733 808 009	0.060	80	37	50	64	30	11	2,3	3	
50	40	733 808 010	0.067	90	43	61	67	30	12	2,9	3	
63	50	733 808 011	0.096	105	54	76	74	30	14	3,6	4	
75	65	733 808 012	0.170	125	70	90	78	30	16	4,3	4	
90	80	733 808 013	0.260	140	82	108	87	35	17	5,1	4	
110	100	733 808 014	0.355	160	105	131	102	41	18	6,3	4	
140	125	733 808 016	0.500	190	130	165	124	47	18	8,0	4	
160	150	733 808 017	0.630	215	158	188	149	52	18	9,1	4	
225	200	733 808 020	1.225	270	206	248	180	55	24	12,8	4	
280	250	733 808 022	2.230	325	259	308	240	63	25	15,9	4	
315	300	733 808 023	2.450	375	308	346	272	66	25	17,9	4	

27 70 04

27 70 05

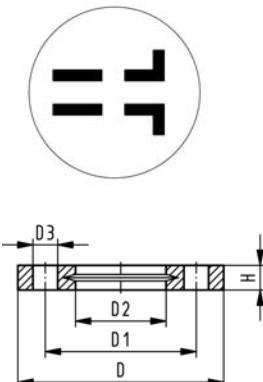


## Backing Flanges, PP-V for Butt Fusion Systems metric

### Model:

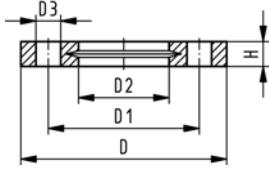
- Modern full-plastic flange PP-GF (30 % glass-fibre reinforced)
- With V-groove which applies force evenly on collar
- With integrated bolt retainers as an assembly aid
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Bolt circle PN 10**

<sup>1)</sup> Suitable for socket- and butt fusion systems (no pictograph on flange)  
AL: number of holes



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

27 70 04  
27 70 05



## Backing Flanges, PP-V for Socket Systems metric

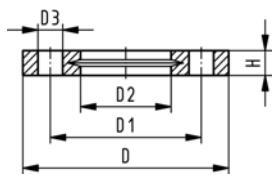
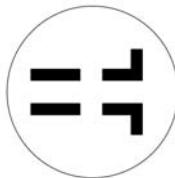
### Model:

- 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, EN 1092, BS 4504, DIN 2501
- **Bolt circle PN 10**

<sup>1)</sup>) Suitable for socket- and butt fusion systems (no pictograph on flange)  
AL: number of holes

d [mm]	Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC	
'20		15	16	727 700 406	0.080	95	65	28	14	16	4	M12	
'25		20	16	727 700 407	0.100	105	75	34	14	17	4	M12	
'32		25	16	727 700 408	0.140	115	85	42	14	18	4	M12	
'40		32	16	727 700 409	0.220	140	100	51	18	20	4	M16	
'50		40	16	727 700 410	0.210	150	110	62	18	22	4	M16	
'63		50	16	727 700 411	0.380	165	125	78	18	24	4	M16	
'75		65	16	727 700 412	0.480	185	145	92	18	26	4	M16	
90		80	16	727 700 413	0.520	200	160	110	18	27	8	M16	
110		100	16	727 700 414	0.680	220	180	133	18	28	8	M16	
140		125	16	727 700 416	0.800	250	210	167	18	30	8	M16	
160	6	150	16	727 700 417	1.200	285	241	190	22	32	8	M20	
200		200	16	727 700 419	1.500	340	296	226	22	34	8	M20	
225		200	16	727 700 420	1.400	340	295	250	22	34	8	M20	
250		250	16	727 700 421	1.700	395	350	277	22	38	12	M20	
280		250	16	727 700 422	1.700	395	350	310	22	38	12	M20	
315		300	16	727 700 423	2.400	445	400	348	22	42	12	M20	
355		350	10	727 700 424	3.000	515	460	388	22	46	16	M20	
400		400	10	727 700 425	3.500	574	515	442	26	50	16	M24	

27 70 14  
27 70 15



## Backing Flanges, PP-V for Butt Fusion Systems Inch/ANSI

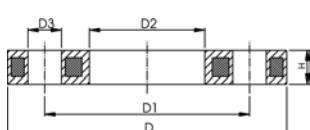
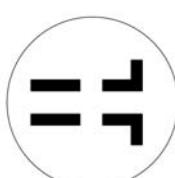
### Model:

- 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
- Connecting dimension: ANSI/ASME B 16.5 class 150, ASTM D 4024, BS 1560, BS EN 1759
- **Bolt circle class 150**

1) Suitable for socket- and butt fusion systems (no pictograph on flange)  
AL: number of holes

Inch	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC	
' $\frac{1}{2}$	15	16	<b>727 701 406</b>	0.080	95	60	28	16	16	4	M12	
' $\frac{3}{4}$	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	
' $\frac{1}{4}$	32	16	<b>727 701 409</b>	0.220	140	89	51	16	20	4	M16	
' $\frac{1}{2}$	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	
' $\frac{5}{8}$	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	100	16	<b>727 701 514</b>	0.680	229	190	128	19	28	8	M16	
6	150	16	<b>727 700 517</b>	1.200	285	241	178	22	32	8	M20	
8	200	16	<b>727 700 519</b>	1.400	340	295	235	22	34	8	M20	
9	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	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	

27 70 02  
27 70 03



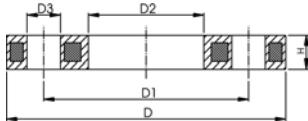
## Backing Flanges, PP/Steel for Butt Fusion Systems metric

### Model:

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

AL: number of holes

d [mm]	d [inch]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC	
20		15	16	<b>727 700 206</b>	0.220	95	65	28	14	12	4	M12	
25		20	16	<b>727 700 207</b>	0.260	105	75	34	14	12	4	M12	
32		25	16	<b>727 700 208</b>	0.430	115	85	42	14	16	4	M12	
40		32	16	<b>727 700 209</b>	0.650	140	100	51	18	16	4	M16	
50		40	16	<b>727 700 210</b>	0.820	150	110	62	18	18	4	M16	
63		50	16	<b>727 700 211</b>	0.940	165	125	78	18	18	4	M16	
75		65	16	<b>727 700 212</b>	1.300	185	145	92	18	18	4	M16	
90		80	16	<b>727 700 313</b>	1.400	200	160	108	18	20	8	M16	
110		100	16	<b>727 700 314</b>	1.580	220	180	128	18	20	8	M16	
125		100	16	<b>727 700 315</b>	1.550	220	180	135	18	20	8	M16	
140		125	16	<b>727 700 316</b>	2.360	250	210	158	18	24	8	M16	
160	6	150	16	<b>727 700 317</b>	3.890	285	240	178	22	24	8	M20	
180		150	16	<b>727 700 318</b>	3.410	285	240	188	22	24	8	M20	
200		200	16	<b>727 700 319</b>	5.180	340	295	235	22	27	8	M20	
225		200	16	<b>727 700 320</b>	5.150	340	295	238	22	27	8	M20	



d [mm]	d [inch]	DN [mm]	PN	Code	kg	D [mm]	D1 [mm]	D2 [mm]	D3 [mm]	H [mm]	AL	SC	
250		250	16	<b>727 700 321</b>	6.680	395	350	288	22	30	12	M20	
280		250	16	<b>727 700 322</b>	6.580	395	350	294	22	30	12	M20	
315		300	16	<b>727 700 323</b>	8.420	445	400	338	22	34	12	M20	
355		350	16	<b>727 700 324</b>	15.790	515	460	376	22	40	16	M20	
400		400	16	<b>727 700 325</b>	19.320	574	515	430	26	40	16	M24	

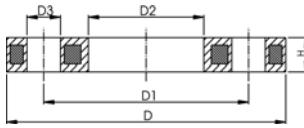
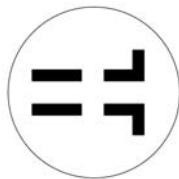
27 70 12

## Backing Flanges, PP/Steel for Butt Fusion Systems Inch/ANSI

### Model:

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

AL: number of holes



d [inch]	DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL	
1/2	15	20	16	<b>727 701 206</b>	0.210	60	28	16	95	12	4	
3/4	20	25	16	<b>727 701 207</b>	0.250	70	34	16	105	12	4	
1	25	32	16	<b>727 701 208</b>	0.420	79	42	16	115	16	4	
1 1/4	32	40	16	<b>727 701 209</b>	0.670	89	51	16	140	16	4	
1 1/2	40	50	16	<b>727 701 210</b>	0.860	98	62	16	150	18	4	
2	50	63	16	<b>727 701 211</b>	0.930	121	78	19	165	18	4	
2 1/2	65	75	16	<b>727 701 212</b>	1.340	140	92	19	185	18	4	
3	80	90	16	<b>727 701 313</b>	1.550	152	108	19	200	20	4	
4	100	110	16	<b>727 701 314</b>	1.840	190	128	19	229	20	8	
6	150	160	16	<b>727 700 317</b>	3.890	240	178	22	285	24	8	
8	200	200	16	<b>727 701 319</b>	5.180	298	235	22	340	27	8	
8	200	225	16	<b>727 701 320</b>	5.150	298	238	22	340	27	8	

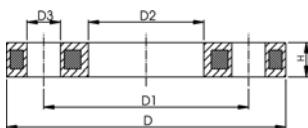
27 70 12

## Backing Flanges, PP/Steel for Socket Systems Inch/ANSI

### Model:

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

AL: number of holes



d [inch]	DN [mm]	d [mm]	PN	Code	kg	D1 [mm]	D2 [mm]	D3 [mm]	D [mm]	H [mm]	AL	
1/2	15	20	16	<b>727 701 206</b>	0.210	60	28	16	95	12	4	
3/4	20	25	16	<b>727 701 207</b>	0.250	70	34	16	105	12	4	
1	25	32	16	<b>727 701 208</b>	0.420	79	42	16	115	16	4	
1 1/4	32	40	16	<b>727 701 209</b>	0.670	89	51	16	140	16	4	
1 1/2	40	50	16	<b>727 701 210</b>	0.860	98	62	16	150	18	4	
2	50	63	16	<b>727 701 211</b>	0.930	121	78	19	165	18	4	
2 1/2	65	75	16	<b>727 701 212</b>	1.340	140	92	19	185	18	4	
3	80	90	16	<b>727 701 213</b>	1.550	152	110	19	200	20	4	
4	100	110	16	<b>727 701 214</b>	1.810	190	133	19	229	20	8	
6	150	160	16	<b>727 700 217</b>	3.390	240	190	22	285	24	8	



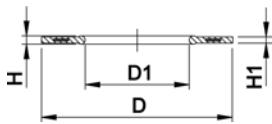
## Profile Flange Gaskets metric EPDM / FPM



### Model:

- For all GF Flange Adaptors
- Profile Gasket with steel insert (type G-ST-P/K)
- Hardness: 70° Shore **EPDM**, 75° Shore **FPM**
- Centering on the inner diameter of the screw crown

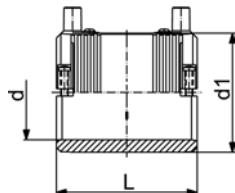
di FA are the suitable inner diameters of flange adaptors



d [mm]	DN [mm]	PN	EPDM Code	FPM Code	kg	D [mm]	D1 [mm]	H [mm]	H1 [mm]	di FA [mm]
20	15	16	748 440 706	749 440 706	0.008	51	20	4	3	10 - 20
25	20	16	748 440 707	749 440 707	0.011	61	22	4	3	12 - 22
32	25	16	748 440 708	749 440 708	0.014	71	28	4	3	18 - 28
40	32	16	748 440 709	749 440 709	0.021	82	40	4	3	30 - 40
50	40	16	748 440 710	749 440 710	0.022	92	46	4	3	36 - 46
63	50	16	748 440 711	749 440 711	0.041	107	58	5	4	48 - 58
75	65	16	748 440 712	749 440 712	0.055	127	69	5	4	59 - 69
90	80	16	748 440 713	749 440 713	0.062	142	84	5	4	73 - 84
110	100	16	748 440 714	749 440 714	0.085	162	104	6	5	94 - 104
125	100	16	748 440 715	749 440 715	0.158	162	123	6	5	113 - 123
140	125	16	748 440 716	749 440 716	0.118	192	137	6	5	127 - 137
160 / 180	150	16	748 440 717	749 440 717	0.153	218	160	8	6	150 - 160
200	200	16	748 440 719	749 440 719	0.263	273	203	8	6	192 - 203
225	200	16	748 440 720	749 440 720	0.181	273	220	8	6	207 - 220
250	250	16	748 440 721	749 440 721	0.410	328	252	8	6	238 - 252
280	250	16	748 440 722	749 440 722	0.226	328	274	8	6	264 - 274
315	300	16	748 440 723	749 440 723	0.334	378	306	8	6	296 - 306
355	350	16	748 440 724	749 440 724	0.410	438	355	10	7	340 - 355
400	400	16	748 440 725	749 440 725	0.513	489	400	10	7	385 - 400
450	500	16	748 440 726	749 440 726	0.718	594	403	10	7	393 - 403
500	500	16	748 440 727	749 440 727	0.718	594	447	10	7	437 - 447
560	600	16	748 440 728	749 440 728	0.923	695	494	10	7	484 - 494
630	600	16	748 440 729	749 440 729	0.923	695	555	10	7	545 - 555

# Electrofusion Fittings

53 91 16

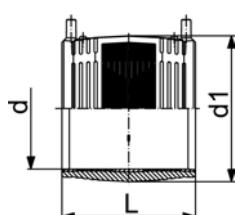


## Coupler with integral clamp

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

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

53 91 16

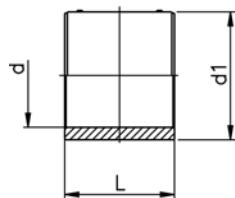


## Coupler

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

d [mm]	Code	kg	d1 [mm]	L [mm]	z [mm]	
75	753 911 612	0.287	96	110	2	
90	753 911 613	0.421	113	125	2	
110	753 911 614	0.697	138	145	2	
125	753 911 615	0.738	154	158	3	
140	753 911 616	0.968	172	168	3	
160	753 911 617	1.390	196	180	3	
180	753 911 618	1.750	219	194		
200	753 911 619	2.350	244	208		
225	753 911 620	3.193	273	224		
250	753 911 621	4.210	304	244		
280	753 911 622	5.675	340	252		
315	753 911 623	8.000	382	268		
355	753 911 624	12.110	432	246		
400	753 911 625	15.993	487	246		

53 91 18

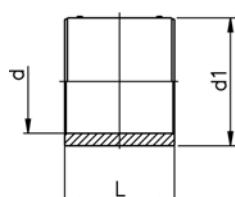


## Coupler

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

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

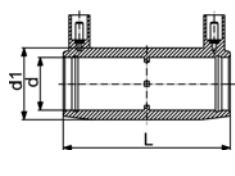
53 91 18



## Coupler

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- 2 separate welding zones
- **Installation only with pressure pad kit (799 301 561)**
- Standard welding units required with steady output power of 2500 W
- For generator use: output power of min. 5 kW recommended

d [mm]	Code	kg	d1 [mm]	L [mm]	
560	753 911 828	25.500	638	392	
630	753 911 829	35.000	716	442	



## Coupler long

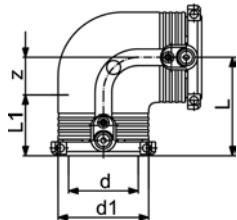
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Removable centre stop

d [mm]	Code	kg	d1 [mm]	L [mm]	z [mm]	
32	753 911 208	0.084	44	104	2	
40	753 911 209	0.135	56	121	2	
50	753 911 210	0.215	68	139	2	
63	753 911 211	0.318	82	166	2	

53 10 16

## Elbow 90° with integral pipe fixation

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

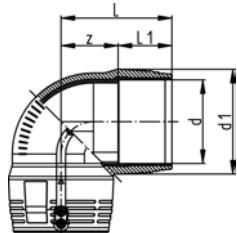


d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
20	753 101 606	0.093	35	54	34	20	
25	753 101 607	0.078	35	54	34	20	
32	753 101 608	0.098	44	53	36	17	
40	753 101 609	0.142	54	62	39	23	
50	753 101 610	0.215	66	71	43	28	
63	753 101 611	0.280	81	81	48	32	

53 10 18

## Elbow 90°

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

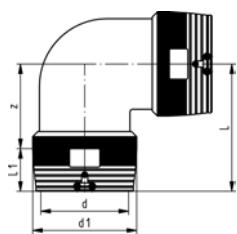


d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
75	753 101 812	0.530	97	101	61	40	
90	753 101 813	0.676	115	122	62	60	
110	753 101 814	1.190	140	147	72	76	
125	753 101 815	1.740	151	142	74	68	
160	753 101 817	3.433	196	178	92	86	
180	753 101 818	4.286	219	195	95	100	

53 10 18

## Elbow 90°

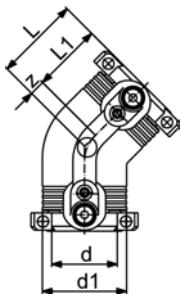
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Two separate fusion zones



d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
200	753 101 819	8.173	245	265	104	161	
225	753 101 820	12.440	274	305	112	193	
250	753 101 821	15.800	305	335	123	212	

53 15 16

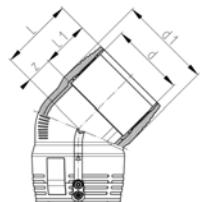
## Elbow 45° with integral pipe fixation



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

53 15 18

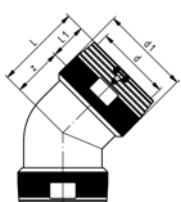
## Elbow 45°



d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
75	753 151 812	0.437	97	79	62	17	
90	753 151 813	0.537	115	91	62	29	
110	753 151 814	0.974	140	112	72	40	
125	753 151 815	1.420	160	127	78	49	
160	753 151 817	1.800	196	134	92	42	
180	753 151 818	3.200	217	142	95	47	

53 15 18

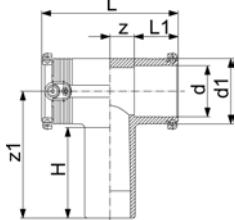
## Elbow 45°



d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	
200	753 151 819	6.810	245	215	104	111	
225	753 151 820	10.590	274	235	112	123	
250	753 151 821	12.740	305	263	123	140	

53 21 16

### Tee 90°, equal with Integral Clamp



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

53 20 18

### Tee 90° equal



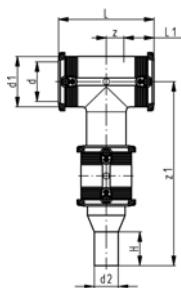
53 20 18

### Tee 90°, equal

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



d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]	
200	753 201 819	10.100	245	560	104	176	250	117	
225	753 201 820	15.145	274	610	112	193	270	122	
250	753 201 821	18.100	305	667	123	211	288	127	



## Tee 90°, reduced (Kit)

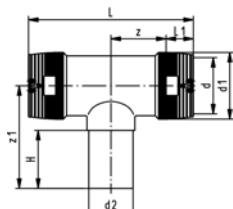
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Integral pipe fixation (up to d63)
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler and Spigot Reducer

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	

53 21 10

## Tee 90°, reduced

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



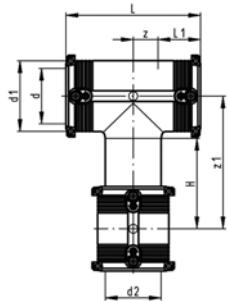
d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]	
160	63	<b>753 211 037</b>	4.940	196	405	90	113	176	65	
160	90	<b>753 211 039</b>	5.040	196	405	90	113	188	79	
160	110	<b>753 211 040</b>	5.160	196	405	90	113	195	85	
200	90	<b>753 211 059</b>	11.260	245	557	104	175	215	81	
200	110	<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>	12.700	274	615	112	196	226	80	
225	110	<b>753 211 070</b>	12.750	274	615	112	196	235	85	
225	160	<b>753 211 073</b>	13.200	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	

53 20 16



## Tee 90° with weldable outlet (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Integral pipe fixation (up to d63)
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler or ELGEF® Plus Reducer



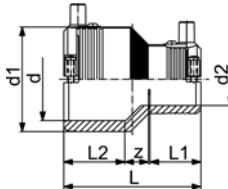
d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	z [mm]	z1 [mm]	H [mm]	
20	20	753 201 606	0.170	35	90	34	11	92	67	
25	25	753 201 607	0.170	35	90	34	11	92	70	
32	32	753 201 608	0.213	44	102	36	15	100	74	
40	32	193 281 006	0.248	54	120	39	21	127	95	
40	40	753 201 609	0.295	54	120	39	21	114	82	
50	32	193 281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

53 90 16



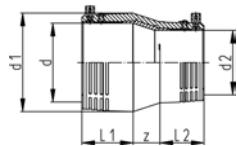
## Reducer with Integral Clamp

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



d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	
25	20	753 901 639	0.059	35	74	34	34	6	
32	20	753 901 640	0.071	44	79	33	36	10	
32	25	753 901 641	0.060	44	79	33	36	10	
40	20	753 901 644	0.069	54	88	33	39	15	
40	25	753 901 645	0.071	54	88	33	39	15	
40	32	753 901 646	0.072	54	88	33	39	13	
50	32	753 901 651	0.096	66	96	35	43	18	
50	40	753 901 652	0.136	66	96	39	43	14	
63	32	753 901 656	0.171	81	106	35	48	23	
63	40	753 901 657	0.176	81	106	39	48	19	
63	50	753 901 658	0.189	81	106	43	48	15	

53 90 18

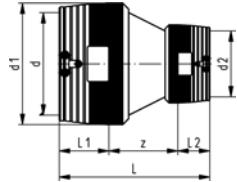


## Reducer

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

d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	
90	63	753 901 831	0.360	113	146	63	47	36	
110	90	753 901 833	0.657	138	173	73	63	38	
125	90	753 901 836	0.870	152	180	79	61	40	
160	110	753 901 834	1.200	196	226	91	70	65	
180	125	753 901 835	2.000	220	247	97	70	80	

53 90 18

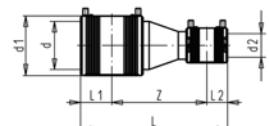


## Reducer

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

d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	
200	160	753 901 837	4.150	245	311	104	90	117	
225	160	753 901 838	5.240	274	331	112	90	129	
250	160	753 901 840	7.100	305	362	123	90	149	
250	200	753 901 841	7.680	305	380	123	104	153	

93 28 09

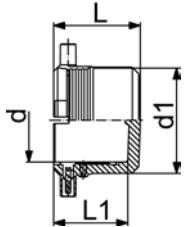


## Reducer (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Integral pipe fixation (up to d63)
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler and Spigot Reducer

d [mm]	d2 [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	L2 [mm]	z [mm]	
75	40	193 280 992	0.567	96	265	55	40	170	

53 96 16

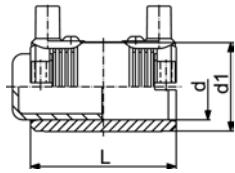


## End Cap with integral pipe fixation

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

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

53 96 17

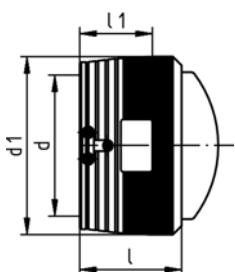


## End cap (Kit)

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit including ELGEF® Plus Coupler
- \* Article to be discontinued, replaced by 53 96 16

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

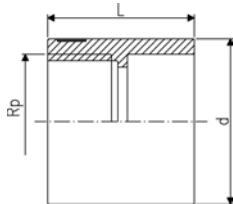
53 96 16



## End Cap

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

d [mm]	Code	kg	d1 [mm]	L [mm]	L1 [mm]	
160	753 961 617	1.840	196	129	90	
200	753 961 619	3.040	245	147	104	
225	753 961 620	4.140	274	157	112	
250	753 961 621	5.860	305	173	123	

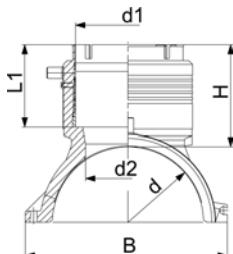


## PE Adaptor Female thread

- PE 80 SDR 11 (ISO S5)
- 5 bar Gas / 12,5 bar Water
- Connection to plastic or metal
- Reinforcing ring stainless (A2)
- For ELGEF® Plus Branch Saddle (53 131 000) d 63 - 400 mm, pipe SDR 11, d 75 - 400 mm, pipe SDR 17
- Parallel female thread

d [mm]	Rp [inch]	Code	kg	L [mm]	
63	1 1/2	<b>173 281 925</b>	0.096	54	

51 336 001

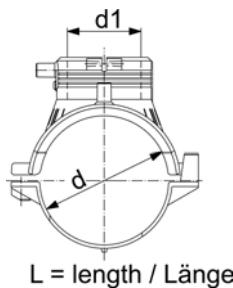


## Branch Fitting

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch Fitting complete, incl. lower part and 3 screws
- Additional fixing with snatch hinge
- Electrofusion outlet with integrated pipe fixation
- Protected wire without medium contact
- 4 mm pin connectors
- Limited path fusion indicators
- \* Delivered without lower part. Pipe fixation with multiple use assembly tool no. 193 281 027

d [mm]	d1 [mm]	Code	kg	H [mm]	L [mm]	L1 [mm]	B [mm]	d2 [mm]	
110	90	<b>193 135 009</b>	1.074	101	220	82	164	65	
110	110	<b>193 135 010</b>	1.152	107	220	88	164	65	
125	90	<b>193 135 019</b>	1.134	101	220	82	179	65	
125	110	<b>193 135 020</b>	1.258	107	220	88	179	65	
*140	90	<b>193 135 029</b>	1.134	101	220	81	195	65	
*140	110	<b>193 135 030</b>	1.258	107	220	87	195	65	
160	90	<b>193 135 039</b>	1.444	102	240	82	215	65	
160	110	<b>193 135 040</b>	1.523	108	240	88	215	86	
160	125	<b>193 135 041</b>	1.738	129	240	99	215	86	
180	90	<b>193 135 049</b>	1.714	102	260	82	237	65	
180	110	<b>193 135 050</b>	1.782	108	260	88	237	86	
180	125	<b>193 135 051</b>	1.972	129	260	99	237	86	
200	90	<b>193 135 059</b>	1.811	102	260	82	253	65	
200	110	<b>193 135 060</b>	1.879	108	260	88	253	86	
200	125	<b>193 135 061</b>	2.069	129	260	99	253	86	
225	90	<b>193 135 069</b>	1.959	102	260	82	287	65	
225	110	<b>193 135 070</b>	2.027	108	260	88	287	86	
225	125	<b>193 135 071</b>	2.217	129	260	99	287	86	
250	90	<b>193 135 079</b>	2.116	102	260	82	312	65	
250	110	<b>193 135 080</b>	2.184	108	260	88	312	86	
250	125	<b>193 135 081</b>	2.374	129	260	99	312	86	

53 131 000



L = length / Länge

## Electrofusion Saddle

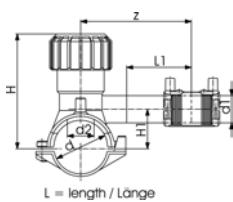
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators

\* = not suitable for all tapping-tee, tapping-valve and spigot with cutter of the modular systems

\*\* = not suitable for all tapping-tee, tapping-valve and spigot with cutter of the modular systems / delivery without lower part for assembling as Top load with tool 799.350.475

d [mm]	d1 [mm]	Code	kg	L [mm]	
63	63	193 131 037	0.335	165	
75	63	193 131 047	0.465	165	
90	63	193 131 057	0.425	165	
110	63	193 131 067	0.493	165	
125	63	193 131 077	0.523	165	
140	63	193 131 087	0.523	165	
160	63	193 131 097	0.526	165	
180	63	193 131 107	0.632	165	
200	63	193 131 117	0.651	165	
225	63	193 131 127	0.653	165	
*250	63	193 131 137	0.665	165	
**280	63	193 131 147	0.370	165	
**315 - 400	63	193 131 157	0.370	165	

53 132 400



L = length / Länge

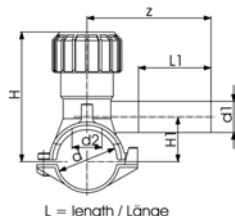
## Tapping Saddle (Kit) Monobloc version

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring sealed screw-cap
- Supplied as Kit with enclosed service line fitting (ELGEF® Plus Coupler or Reducer)

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]	
40	20	193 132 412	0.324	16	99	33	103	70	102	
40	25	193 132 413	0.331	16	99	33	103	70	102	
40	32	193 132 414	0.353	16	99	33	103	70	120	
50	20	193 132 422	0.325	16	105	38	103	70	102	
50	25	193 132 423	0.323	16	105	38	103	70	102	
50	32	193 132 424	0.342	16	105	38	103	70	120	
63	20	193 132 432	0.486	25	134	44	126	70	115	
63	25	193 132 433	0.492	25	134	44	126	70	115	
63	32	193 132 434	0.507	25	134	44	126	70	130	
63	40	193 132 435	0.534	25	134	44	126	70	130	

## Tapping Saddle

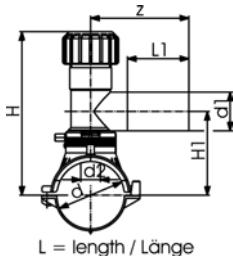
### Monobloc version



- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring sealed screw-cap

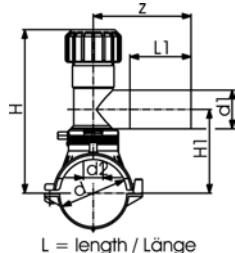
d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]	
40	20	<b>193 131 412</b>	0.270	16	99	33	103	70	102	
40	25	<b>193 131 413</b>	0.272	16	99	33	103	70	102	
40	32	<b>193 131 414</b>	0.277	16	99	33	103	70	120	
50	20	<b>193 131 422</b>	0.260	16	104	38	103	70	102	
50	25	<b>193 131 423</b>	0.262	16	104	38	103	70	102	
50	32	<b>193 131 424</b>	0.270	16	104	38	103	70	120	
63	20	<b>193 131 432</b>	0.428	25	134	44	126	70	115	
63	25	<b>193 131 433</b>	0.431	25	134	44	126	70	115	
63	32	<b>193 131 434</b>	0.433	25	134	44	126	70	130	

## Tapping Saddle with 360° rotatable outlet



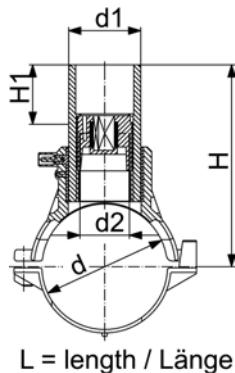
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated cutter to tap live mains under pressure
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring sealed screw-cap
- D 315 - 400 mm: application is limited on pipes d 355 and d 400 mm. Not suitable for pipes with an SDR value higher than 17.
- \*Delivery without lower part for assembling as Top Load with tool no. 799.350.475

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	z [mm]	
63	20	<b>193 131 402</b>	0.695	32	186	108	165	71	130	
63	25	<b>193 131 403</b>	0.713	32	186	108	165	71	130	
63	32	<b>193 131 404</b>	0.715	32	186	108	165	76	130	
63	40	<b>193 131 405</b>	0.731	32	186	108	165	81	137	
63	63	<b>193 131 437</b>	1.455	32	134	112	165	100	160	
75	20	<b>193 131 442</b>	0.825	32	191	113	165	71	130	
75	25	<b>193 131 443</b>	0.839	32	191	113	165	71	130	
75	32	<b>193 131 444</b>	0.841	32	191	113	165	76	130	
75	40	<b>193 131 445</b>	0.858	32	191	113	165	81	137	
75	63	<b>193 131 447</b>	1.579	32	240	118	165	100	160	
90	20	<b>193 131 452</b>	0.791	32	199	121	165	71	130	
90	25	<b>193 131 453</b>	0.802	32	199	121	165	71	130	
90	32	<b>193 131 454</b>	0.801	32	199	121	165	76	130	
90	40	<b>193 131 455</b>	0.819	32	199	121	165	81	137	
90	63	<b>193 131 457</b>	1.541	32	248	126	165	100	160	
110	20	<b>193 131 462</b>	0.853	32	209	131	165	71	130	
110	25	<b>193 131 463</b>	0.860	32	209	131	165	71	130	
110	32	<b>193 131 464</b>	0.860	32	209	131	165	76	130	
110	40	<b>193 131 465</b>	0.877	32	209	131	165	81	137	
110	63	<b>193 131 467</b>	1.590	35	258	136	165	100	160	
125	20	<b>193 131 472</b>	0.879	32	216	138	165	71	130	
125	25	<b>193 131 473</b>	0.883	32	216	138	165	71	130	
125	32	<b>193 131 474</b>	0.889	32	216	138	165	76	130	
125	40	<b>193 131 475</b>	0.906	32	216	138	165	81	137	
125	63	<b>193 131 477</b>	1.623	35	265	143	165	100	160	
140	20	<b>193 131 482</b>	0.887	32	233	146	165	71	130	
140	25	<b>193 131 483</b>	0.884	32	233	146	165	71	130	
140	32	<b>193 131 484</b>	0.900	32	233	146	165	76	130	
140	40	<b>193 131 485</b>	0.920	32	233	146	165	81	137	
140	63	<b>193 131 487</b>	1.639	35	273	151	165	100	160	
160	20	<b>193 131 492</b>	0.886	32	243	156	165	71	130	
160	25	<b>193 131 493</b>	0.896	32	243	156	165	71	130	
160	32	<b>193 131 494</b>	0.896	32	243	156	165	76	130	
160	40	<b>193 131 495</b>	0.920	32	243	156	165	81	137	
160	63	<b>193 131 497</b>	1.636	35	283	161	165	100	160	
180	20	<b>193 131 502</b>	1.002	32	244	166	165	71	130	
180	25	<b>193 131 503</b>	1.002	32	244	166	165	71	130	
180	32	<b>193 131 504</b>	1.002	32	244	166	165	76	130	
180	40	<b>193 131 505</b>	1.022	32	244	166	165	81	137	
180	63	<b>193 131 507</b>	1.742	35	293	171	165	100	160	
200	20	<b>193 131 512</b>	1.011	32	254	176	165	71	137	
200	25	<b>193 131 513</b>	1.011	32	254	176	165	71	130	
200	32	<b>193 131 514</b>	1.021	32	254	176	165	76	130	
200	40	<b>193 131 515</b>	1.041	32	254	176	165	81	137	
200	63	<b>193 131 517</b>	1.761	35	303	181	165	100	160	
225	20	<b>193 131 522</b>	1.014	32	266	188	165	71	130	
225	25	<b>193 131 523</b>	1.014	32	266	188	165	71	130	
225	32	<b>193 131 524</b>	1.014	32	266	188	165	76	130	



d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	L1 [mm]	Z [mm]	
225	40	<b>193 131 525</b>	1.043	32	266	188	165	81	137	
225	63	<b>193 131 527</b>	1.763	35	315	193	165	100	160	
250	20	<b>193 131 532</b>	1.025	32	279	201	165	76	130	
250	25	<b>193 131 533</b>	1.035	32	279	201	165	76	130	
250	32	<b>193 131 534</b>	1.035	32	279	201	165	76	130	
250	40	<b>193 131 535</b>	1.055	32	279	201	165	81	137	
250	63	<b>193 131 537</b>	1.775	35	328	206	165	100	160	
*280	63	<b>193 131 547</b>	1.240	35	328	206	165	100	160	
*315-400	63	<b>193 131 557</b>	1.513	35	328	206	165	100	160	

## 53 131 200

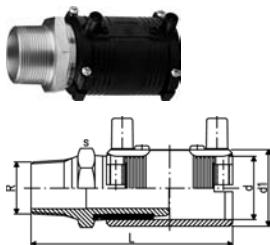


## Spigot Saddle with Cutter

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- D 315 - 400 mm: application is limited on pipes d 355 and d 400 mm. Not suitable for pipes with an SDR value higher than 17.
- \*Delivery without lower part for assembling as Top Load with tool no. 799.350.475

d [mm]	d1 [mm]	Code	kg	d2 [mm]	H [mm]	H1 [mm]	L [mm]	SW [mm]	
63	32	<b>193 131 234</b>	0.538	19	145	50	165	13	
63	63	<b>193 131 237</b>	1.036	32	152	50	165	17	
75	32	<b>193 131 244</b>	0.668	19	151	50	165	13	
75	63	<b>193 131 247</b>	1.166	32	158	50	165	17	
90	32	<b>193 131 254</b>	0.628	19	158	50	165	13	
90	63	<b>193 131 257</b>	1.126	32	165	50	165	17	
110	32	<b>193 131 264</b>	0.696	19	168	50	165	13	
110	63	<b>193 131 267</b>	1.194	32	175	50	165	17	
125	32	<b>193 131 274</b>	0.726	19	176	50	165	13	
125	63	<b>193 131 277</b>	1.224	32	183	50	165	17	
140	32	<b>193 131 284</b>	0.726	19	183	50	165	13	
140	63	<b>193 131 287</b>	1.224	32	190	50	165	17	
160	32	<b>193 131 294</b>	0.729	19	193	50	165	13	
160	63	<b>193 131 297</b>	1.227	32	200	50	165	17	
180	32	<b>193 131 304</b>	0.835	19	203	50	165	13	
180	63	<b>193 131 307</b>	1.333	32	210	50	165	17	
200	32	<b>193 131 314</b>	0.854	19	213	50	165	13	
200	63	<b>193 131 317</b>	1.352	32	220	50	165	17	
225	32	<b>193 131 324</b>	0.856	19	226	50	165	13	
225	63	<b>193 131 327</b>	1.354	32	233	50	165	17	
250	32	<b>193 131 334</b>	0.868	19	238	50	165	13	
250	63	<b>193 131 337</b>	1.366	32	245	50	165	17	
*280	63	<b>193 131 347</b>	0.830	35	245	50	165	17	
*315 - 400	63	<b>193 131 357</b>	0.830	35	245	50	165	17	

20 92 07

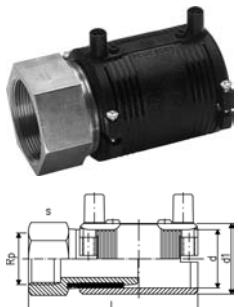


## Transition Coupler PE/brass (Ms 58) Male Thread

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

d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]	
20	1/2	<b>720 920 756</b>	0.217	31	110	30	
20	1	<b>720 920 754</b>	0.344	44	124	40	
25	3/4	<b>720 920 757</b>	0.280	36	111	35	
25	1	<b>720 920 763</b>	0.364	44	124	40	
32	1/2	<b>720 920 764</b>	0.235	44	121	30	
32	3/4	<b>720 920 765</b>	0.287	44	122	35	
32	1	<b>720 920 758</b>	0.355	44	117	40	
32	1 1/4	<b>720 920 766</b>	0.543	54	135	50	
32	1 1/2	<b>720 920 767</b>	0.685	60	143	60	
32	2	<b>720 920 768</b>	1.000	81	157	70	
40	1	<b>720 920 771</b>	0.387	54	133	40	
40	1 1/4	<b>720 920 759</b>	0.541	54	127	50	
40	1 1/2	<b>720 920 772</b>	0.694	66	143	60	
40	2	<b>720 920 773</b>	0.992	81	157	70	
50	1	<b>720 920 776</b>	0.416	66	141	40	
50	1 1/4	<b>720 920 777</b>	0.578	66	143	50	
50	1 1/2	<b>720 920 760</b>	0.670	66	135	60	
50	2	<b>720 920 778</b>	0.994	81	157	70	
63	1	<b>720 920 781</b>	0.460	81	151	40	
63	1 1/4	<b>720 920 782</b>	0.626	81	153	40	
63	1 1/2	<b>720 920 783</b>	0.741	81	153	60	
63	2	<b>720 920 761</b>	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	kg	d1 [mm]	L [mm]	s [mm]	
32	1	<b>720 920 258</b>	0.338	44	108	40	
40	1 1/4	<b>720 920 259</b>	0.511	54	118	50	
50	1 1/2	<b>720 920 260</b>	0.744	66	126	60	
63	1	<b>720 920 281</b>	1.280	81	138	70	
63	1 1/4	<b>720 920 282</b>	1.230	81	138	70	
63	1 1/2	<b>720 920 283</b>	1.115	81	138	70	
63	2	<b>720 920 261</b>	1.016	81	138	70	

20 91 00

## Transition Coupler PE/brass (Ms 58) with loose Nut

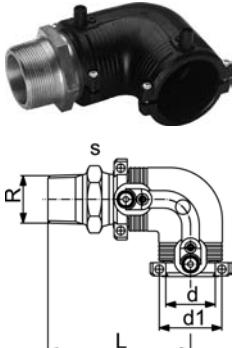


- PE 100 SDR 11 (ISO S5)
- Gas on request / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Delivered as a kit. Further combinations modular system with threaded adapter and reductions
- Incl. flat gasket for water applications (KTW / WRC approved)

<b>d</b> [mm]	<b>Rp</b> [inch]	<b>Code</b>	<b>kg</b>	<b>d1</b> [mm]	<b>d2</b> [mm]	<b>L</b> [mm]	
25	3/4	<b>720 910 007</b>	0.240	36	15	104	
25	1	<b>720 910 017</b>	0.315	36	16	106	
32	1	<b>720 910 008</b>	0.342	44	20	110	
32	1 1/4	<b>720 910 018</b>	0.460	44	22	114	
32	1 1/2	<b>720 910 028</b>	0.480	44	22	114	
40	1	<b>720 910 009</b>	0.465	54	21	119	
40	1 1/4	<b>720 910 019</b>	0.520	54	25	123	
40	1 1/2	<b>720 910 029</b>	0.595	54	28	123	
50	1	<b>720 910 020</b>	0.685	66	20	128	
50	1 1/4	<b>720 910 030</b>	0.730	66	25	133	
50	1 1/2	<b>720 910 010</b>	0.774	66	29	133	
50	2	<b>720 910 040</b>	0.980	66	36	137	
63	1	<b>720 910 021</b>	1.025	81	20	137	
63	1 1/4	<b>720 910 031</b>	1.060	81	25	141	
63	1 1/2	<b>720 910 041</b>	1.070	81	29	141	
63	2	<b>720 910 011</b>	1.235	81	36	145	
63	2 1/2	<b>720 910 051</b>	1.495	81	46	148	

20 10 07

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

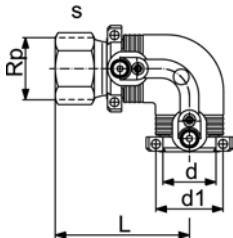


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit

<b>d</b> [mm]	<b>R</b> [inch]	<b>Code</b>	<b>kg</b>	<b>d1</b> [mm]	<b>L</b> [mm]	<b>s</b> [mm]	
20	1/2	<b>720 100 756</b>	0.240	31	96	30	
25	3/4	<b>720 100 757</b>	0.260	36	97	35	
32	1	<b>720 100 758</b>	0.383	44	98	40	
32	1 1/4	<b>720 100 766</b>	0.500	44	100	50	
32	1 1/2	<b>720 100 767</b>	0.562	44	100	60	
40	1	<b>720 100 771</b>	0.528	54	107	50	
40	1 1/4	<b>720 100 759</b>	0.584	54	109	50	
40	1 1/2	<b>720 100 772</b>	0.642	54	109	60	
50	1	<b>720 100 776</b>	0.710	66	116	60	
50	1 1/4	<b>720 100 777</b>	0.771	66	118	60	
50	1 1/2	<b>720 100 760</b>	0.757	66	118	60	
63	1 1/4	<b>720 100 782</b>	1.040	81	128	70	
63	1 1/2	<b>720 100 783</b>	1.045	81	128	70	
63	2	<b>720 100 761</b>	1.115	81	132	70	

20 10 02

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

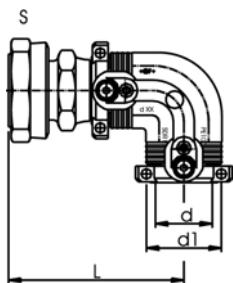


- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit

d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]	
32	1	720 100 258	0.365	44	89	40	
40	1 1/4	720 100 259	0.556	54	100	50	
50	1 1/2	720 100 260	0.819	66	109	60	
63	1	720 100 281	1.420	81	123	70	
63	1 1/4	720 100 282	1.380	81	123	70	
63	1 1/2	720 100 283	1.305	81	123	70	
63	2	720 100 261	1.165	81	123	70	

20 10 00

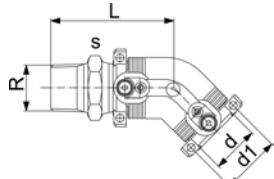
## Transition Elbow 90° PE/brass (Ms 58) with loose Nut



- PE 100 SDR 11 (ISO S5)
- Gas on request / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit
- Incl. flat gasket for water applications (KTW / WRC approved)

Rp [inch]	d [mm]	Code	kg	d1 [mm]	L [mm]	
3/4	25	720 100 007	0.260	36	90	
1	25	720 100 017	0.335	36	92	
1	32	720 100 008	0.370	44	91	
1 1/4	32	720 100 018	0.490	44	95	
1 1/2	32	720 100 028	0.505	44	95	
1	40	720 100 009	0.505	54	101	
1 1/4	40	720 100 019	0.565	54	105	
1 1/2	40	720 100 029	0.635	54	105	
1	50	720 100 020	0.760	66	111	
1 1/4	50	720 100 030	0.805	66	116	
1 1/2	50	720 100 010	0.850	66	116	
2	50	720 100 040	1.060	66	120	
1	63	720 100 021	1.171	81	121	
1 1/4	63	720 100 031	1.200	81	125	
1 1/2	63	720 100 041	1.210	81	125	
2	63	720 100 011	1.375	81	129	
2 1/2	63	720 100 051	1.635	81	132	

20 15 07

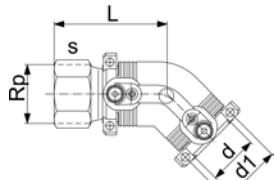


## Transition Elbow 45° PE/brass (Ms 58) Male Thread

- 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	kg	d1 [mm]	L [mm]	s [mm]	
32	1	720 150 758	0.374	44	89	40	
32	1 1/4	720 150 766	0.380	44	91	50	
32	1 1/2	720 150 767	0.560	44	91	60	
40	1	720 150 771	0.510	54	95	50	
40	1 1/4	720 150 759	0.560	54	97	50	
40	1 1/2	720 150 772	0.630	54	97	60	
50	1	720 150 776	0.670	66	101	60	
50	1 1/4	720 150 777	0.740	66	103	60	
50	1 1/2	720 150 760	0.720	66	103	60	
63	1 1/4	720 150 782	0.990	81	110	70	
63	1 1/2	720 150 783	0.990	81	110	70	
63	2	720 150 761	1.069	81	114	70	

20 15 02

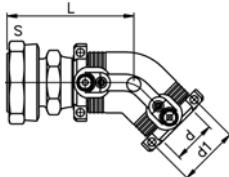


## Transition Elbow 45° PE/brass (Ms 58) Female Thread

- 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	kg	d1 [mm]	L [mm]	s [mm]	
32	1	720 150 258	0.354	44	80	40	
40	1 1/4	720 150 259	0.530	54	88	50	
50	1 1/2	720 150 260	0.780	66	94	60	
63	1	720 150 281	1.360	81	105	70	
63	1 1/4	720 150 282	1.320	81	105	70	
63	1 1/2	720 150 283	1.240	81	105	70	
63	2	720 150 261	1.090	81	105	70	

20 15 00

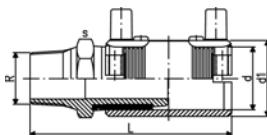


## Transition Elbow 45° PE/brass (Ms 58) with loose Nut

- PE 100 SDR 11 (ISO S5)
- Gas on request / 16 bar Water
- With integral pipe fixation
- 4 mm pin connectors
- Limited path fusion indicators
- Supplied as kit
- Incl. flat gasket for water applications (KTW / WRC approved)

d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	
32	1	<b>720 150 008</b>	0.355	44	82	
32	1 1/4	<b>720 150 018</b>	0.475	44	86	
32	1 1/2	<b>720 150 028</b>	0.495	44	86	
40	1	<b>720 150 009</b>	0.485	54	89	
40	1 1/4	<b>720 150 019</b>	0.540	54	93	
40	1 1/2	<b>720 150 029</b>	0.615	54	93	
50	1	<b>720 150 020</b>	0.725	66	96	
50	1 1/4	<b>720 150 030</b>	0.770	66	101	
50	1 1/2	<b>720 150 010</b>	0.815	66	101	
50	2	<b>720 150 040</b>	1.024	66	105	
63	1	<b>720 150 021</b>	1.105	81	104	
63	1 1/4	<b>720 150 031</b>	1.140	81	108	
63	1 1/2	<b>720 150 041</b>	1.150	81	108	
63	2	<b>720 150 011</b>	1.315	81	112	
63	2 1/2	<b>720 150 051</b>	1.575	81	115	

24 92 07

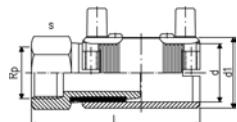


## Transition Coupler PE/steel (stainless 1.4305) Male Thread

- 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	kg	d1 [mm]	L [mm]	s [mm]	
20	1/2	<b>724 920 756</b>	0.210	31	110	30	
25	3/4	<b>724 920 757</b>	0.260	36	111	35	
32	1	<b>724 920 758</b>	0.347	44	117	40	
32	1 1/2	<b>724 920 767</b>	0.330	44	125	60	
40	1 1/4	<b>724 920 759</b>	0.519	54	127	50	
40	1 1/2	<b>724 920 772</b>	0.690	66	143	60	
50	1 1/2	<b>724 920 760</b>	0.657	66	135	60	
63	1 1/2	<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

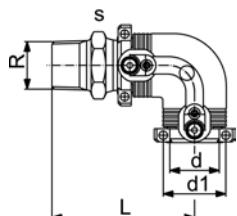


## Transition Coupler PE/steel (stainless 1.4305) Female Thread

- 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	kg	d1 [mm]	L [mm]	s [mm]	
20	1/2	724 920 256	0.197	31	100	30	
25	3/4	724 920 257	0.253	36	101	35	
32	1	724 920 258	0.340	44	108	40	
40	1 1/4	724 920 259	0.505	54	118	50	
50	1 1/2	724 920 260	0.725	66	126	60	
63	2	724 920 261	0.995	81	138	70	

24 10 07



## Transition Elbow 90° PE/steel (stainless 1.4305) Male Thread

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

d [mm]	R [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]	
20	1/2	724 100 756	0.211	31	96	30	
25	3/4	724 100 757	0.230	36	97	35	
32	1	724 100 758	0.370	44	98	40	
40	1 1/4	724 100 759	0.560	54	109	50	
40	1 1/2	724 100 772	0.730	54	109	60	
50	1 1/2	724 100 760	0.730	66	118	60	
63	1 1/2	724 100 771	1.040	81	132	70	
63	2	724 100 761	1.105	81	132	70	

24 10 02

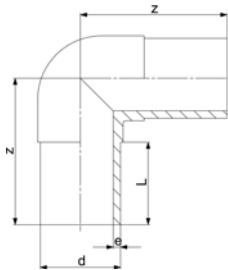
## Transition Elbow 90° PE/steel (stainless 1.4305) Female Thread

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

d [mm]	Rp [inch]	Code	kg	d1 [mm]	L [mm]	s [mm]	
20	1/2	724 100 256	0.211	31	86	30	
25	3/4	724 100 257	0.237	36	87	35	
32	1	724 100 258	0.360	44	89	40	
40	1 1/4	724 100 259	0.545	54	100	50	
50	1 1/2	724 100 260	0.805	66	109	60	
63	2	724 100 261	1.135	81	123	70	

# Spigot Fittings for Electrofusion

53 10 10



## Elbow 90° Type L

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

d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
20	753 101 006	0.027	75	52	3.0	
25	753 101 007	0.037	80	52	3.0	
32	753 101 008	0.053	85	54	3.0	
40	753 101 009	0.093	95	57	3.7	
50	753 101 010	0.159	105	63	4.6	
63	753 101 011	0.275	115	65	5.8	
75	753 101 012	0.413	130	72	6.8	
90	753 101 013	0.704	150	81	8.2	
110	753 101 014	1.145	165	86	10.0	
125	753 101 015	1.609	180	93	11.4	
140	753 101 016	1.920	202	92	12.7	
160	753 101 017	3.100	210	103	14.6	
180	753 101 018	4.319	232	107	16.4	
200	753 101 019	5.733	253	117	18.2	
225	753 101 020	7.780	270	122	20.5	
250	753 101 001	11.091	292	130	22.7	
280	753 100 922	15.286	320	140	25.4	
315	753 100 923	21.960	370	150	28.6	

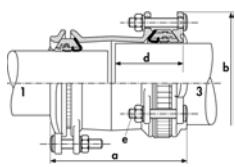
53 10 08

## Elbow 90° Type L

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water

d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
90	753 100 813	0.544	150	81	5,4	
110	753 100 814	0.625	165	86	6,6	
125	753 100 815	0.927	180	93	7,4	
140	753 100 816	1.430	202	92	8,3	
160	753 100 817	3.040	210	102	9,5	
180	753 100 818	3.750	232	107	10,7	
200	753 100 819	4.980	253	115	11,9	
225	753 100 820	6.850	270	120	13,4	
250	753 100 821	8.274	292	130	14,8	
280	753 100 822	11.423	320	140	16,6	
315	753 100 823	16.050	370	150	18,7	

53 15 10

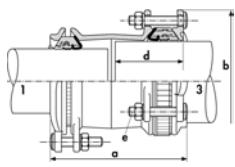


## Elbow 45° Type L

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

d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
20	753 151 006	0.026	70	52	3,0	
25	753 151 007	0.035	75	52	3,0	
32	753 151 008	0.051	80	54	3,0	
40	753 151 009	0.082	85	57	3,7	
50	753 151 010	0.137	90	63	4,6	
63	753 151 011	0.300	95	65	5,8	
75	753 151 012	0.346	105	72	6,8	
90	753 151 013	0.578	120	81	8,2	
110	753 151 014	0.931	130	86	10,0	
125	753 151 015	1.286	140	92	11,4	
140	753 151 016	1.600	164	120	12,7	
160	753 151 017	2.461	162	102	14,6	
180	753 151 018	3.283	170	107	16,4	
200	753 151 019	4.371	186	116	18,2	
225	753 151 020	6.013	200	123	20,5	
250	753 151 021	8.541	220	130	22,7	
280	753 150 922	10.924	230	140	25,4	
315	753 150 923	14.818	250	150	28,6	

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## Elbow 45° Type L

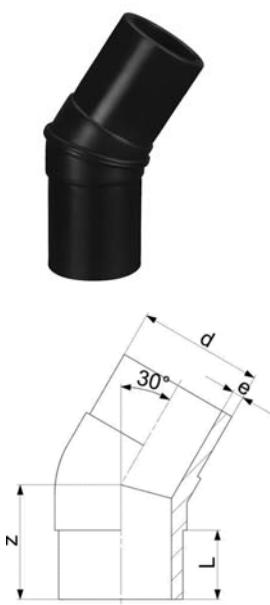
- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water

d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
90	753 150 813	0.450	120	81	5,4	
110	753 150 814	0.900	130	86	6,6	
125	753 150 815	1.250	140	92	7,4	
140	753 150 816	1.100	164	120	8,3	
160	753 150 817	2.390	162	102	9,5	
180	753 150 818	3.060	170	107	10,7	
200	753 150 819	4.100	186	116	11,9	
225	753 150 820	5.610	205	123	13,4	
250	753 150 821	6.227	220	130	14,8	
280	753 150 822	7.819	230	140	16,6	
315	753 150 823	10.596	250	150	18,7	

53 12 09

**Elbow 30° Type L**

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

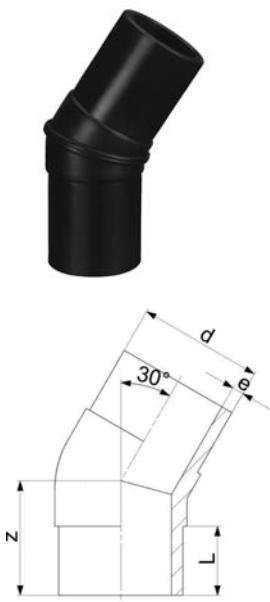


d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
32	753 120 908	0.050	70	54	3,0	
40	753 120 909	0.530	80	57	3,7	
50	753 120 910	0.530	80	63	4,6	
63	753 120 911	0.207	80	65	5,8	
75	753 120 912	0.530	90	72	6,8	
90	753 120 913	0.540	100	81	8,2	
110	753 120 914	0.840	105	86	10,0	
125	753 120 915	1.240	115	92	11,4	
140	753 120 916	1.760	135	92	12,7	
160	753 120 917	2.050	130	102	14,6	
180	753 120 918	2.907	140	107	16,4	
200	753 120 919	8.600	150	116	18,2	
225	753 120 920	5.360	165	123	20,5	
250	753 120 921	7.300	190	130	22,7	
280	753 120 922	10.600	200	139	25,4	
315	753 120 923	10.100	200	150	28,6	

53 12 08

**Elbow 30° Type L**

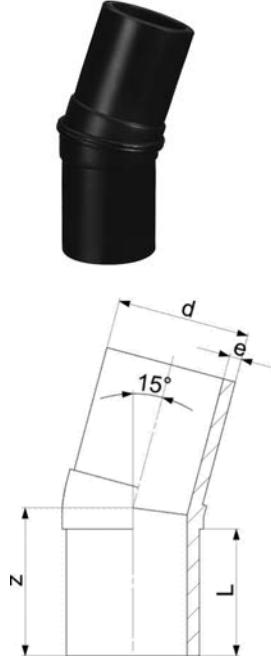
- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- Welded design



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
90	753 120 813	0.430	110	81	5,4	
110	753 120 814	0.620	115	86	6,6	
125	753 120 815	1.070	125	92	7,4	
140	753 120 816	1.490	150	92	8,3	
160	753 120 817	1.600	140	102	9,5	
180	753 120 818	2.040	150	107	10,7	
200	753 120 819	2.780	160	116	11,9	
225	753 120 820	3.880	180	123	13,4	
250	753 120 821	5.830	200	130	14,8	
280	753 120 822	8.100	200	139	16,6	
315	753 120 823	11.200	220	150	18,7	

## Elbow 15° Type L

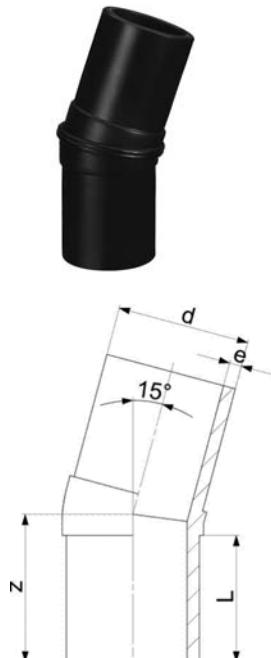
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Welded design



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
32	753 141 008	0.051	70	54	3.0	
40	753 141 009	0.082	80	57	3.7	
50	753 141 010	0.137	80	63	4.6	
63	753 141 011	0.200	80	65	5.8	
75	753 141 012	0.250	90	72	6.8	
90	753 141 013	0.487	100	81	8.2	
110	753 141 014	0.785	105	86	10.0	
125	753 141 015	1.070	115	92	11.4	
140	753 141 016	1.600	135	92	12.7	
160	753 141 017	2.050	130	102	14.6	
180	753 141 018	2.669	140	107	16.4	
200	753 141 019	3.440	150	116	18.2	
225	753 141 020	4.900	165	123	20.5	
250	753 141 021	8.300	190	130	22.7	
280	753 141 022	9.500	200	139	25.4	
315	753 141 023	13.100	200	150	28.6	

## Elbow 15° Type L

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- Welded design



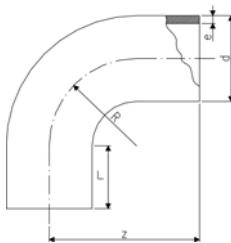
d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
90	753 140 813	0.370	100	81	5.4	
110	753 140 814	0.620	105	86	6.6	
125	753 140 815	0.990	115	92	7.4	
140	753 140 816	0.370	135	92	8.3	
160	753 140 817	1.600	130	102	9.5	
180	753 140 818	2.040	140	107	10.7	
200	753 140 819	2.780	150	116	11.9	
225	753 140 820	4.820	165	123	13.4	
250	753 140 821	5.830	190	130	14.8	
280	753 140 822	8.100	195	139	16.6	
315	753 140 823	11.200	200	150	18.7	

53 00 09

**Bend 90° Type L**

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

\* made out of seamless pipe



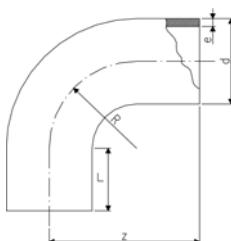
d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
20	753 001 006	0.020	63	41	20	1,9	
25	753 001 007	0.030	68	41	25	2,3	
32	753 001 008	0.050	78	46	32	2,9	
40	753 001 009	0.090	91	49	40	3,7	
50	753 001 010	0.160	107	55	50	4,6	
63	753 001 011	0.290	130	63	63	5,8	
75	753 001 012	0.300	152	70	75	6,8	
90	753 001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

53 00 08

**Bend 90° Type L**

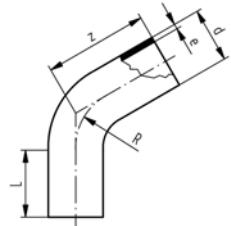
- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water

\* made out of seamless pipe



d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
90	753 000 813	0.600	168	79	90	5,4	
110	753 000 814	1.000	193	82	110	6,6	
125	753 000 815	1.300	216	87	125	7,4	
140	753 000 816	2.500	232	92	140	8,3	
160	753 000 817	2.500	258	98	160	9,5	
180	753 000 818	4.000	290	105	180	10,7	
200	753 000 819	6.500	317	112	200	11,9	
225	753 000 820	8.500	350	120	225	13,4	
250	753 000 821	8.500	375	130	250	14,8	
280	753 000 822	15.000	430	150	280	16,6	
315	753 000 823	24.000	470	150	315	18,7	
*355	753 000 824	36.700	900	250	533	21,1	
*400	753 000 825	49.700	980	250	600	23,7	
*450	753 000 826	66.600	1070	250	675	26,7	
*500	753 000 827	87.400	1200	280	750	29,7	
*560	753 000 828	116.000	1290	280	840	33,2	
*630	753 000 829	159.600	1400	280	945	37,4	

53 07 10

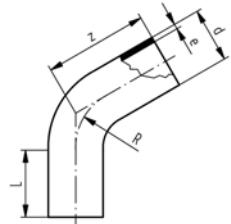


## Bend 60° Type L

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
32	753 071 008	0.070	128	80	48	2,9	
40	753 071 009	0.120	135	80	60	3,7	
50	753 071 010	0.240	158	100	75	4,6	
63	753 071 011	0.420	173	100	95	5,8	
75	753 071 012	0.600	182	100	113	6,8	
90	753 071 013	0.900	193	100	135	8,2	
110	753 071 014	1.780	270	150	165	10,0	
125	753 071 015	2.500	283	150	188	11,4	
140	753 071 016	2.700	296	150	210	12,7	
160	753 071 017	4.500	313	150	240	14,6	
180	753 071 018	4.900	330	150	270	16,4	
200	753 071 019	6.400	348	150	300	18,2	
225	753 071 020	8.600	370	150	338	20,5	
250	753 071 021	14.500	500	250	375	22,7	
280	753 071 022	19.100	530	250	420	25,4	
315	753 071 023	25.600	612	250	473	28,6	
355	753 071 024	41.700	690	300	533	32,3	
400	753 071 025	55.800	730	300	600	36,4	
450	753 071 026	76.000	780	300	675	40,9	
500	753 071 027	104.600	880	350	750	45,5	
560	753 071 028	139.500	930	350	840	50,9	
630	753 071 029	188.500	1000	350	945	57,3	

53 07 08



## Bend 60° Type L

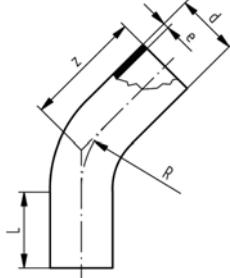
- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
90	753 070 813	0.600	193	100	135	5,4	
110	753 070 814	1.280	270	150	165	6,6	
125	753 070 815	1.300	283	150	187	7,4	
140	753 070 816	1.800	296	150	210	8,3	
160	753 070 817	3.160	313	150	240	9,5	
180	753 070 818	3.190	330	150	270	10,7	
200	753 070 819	4.200	348	150	300	11,9	
225	753 070 820	5.600	370	150	337	13,4	
250	753 070 821	9.250	500	250	375	14,8	
280	753 070 822	15.000	530	250	420	16,6	
315	753 070 823	19.500	612	250	472	18,7	
355	753 070 824	30.100	690	300	532	21,1	
400	753 070 825	38.200	730	300	600	23,7	
450	753 070 826	53.700	780	300	675	26,7	
500	753 070 827	73.900	880	350	750	29,7	
560	753 070 828	98.200	930	350	840	33,2	
630	753 070 829	132.300	1000	350	945	37,4	



### Bend 45° Type L

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

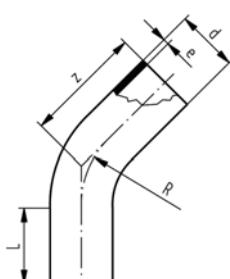


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
32	753 051 008	0.077	120	80	48	2,9	
40	753 051 009	0.120	120	80	60	3,7	
50	753 051 010	0.240	149	100	75	4,6	
63	753 051 011	0.360	161	100	95	5,8	
75	753 051 012	0.560	168	100	113	6,8	
90	753 051 013	0.760	177	100	135	8,2	
110	753 051 014	1.700	243	150	165	10,0	
125	753 051 015	2.300	253	150	188	11,4	
140	753 051 016	2.800	262	150	210	12,7	
160	753 051 017	3.800	274	160	240	14,6	
180	753 051 018	5.140	287	150	270	16,4	
200	753 051 019	5.600	299	150	300	18,2	
225	753 051 020	7.400	315	150	338	20,5	
250	753 051 021	13.000	440	250	375	22,7	
280	753 051 022	15.000	460	250	420	25,4	
315	753 051 023	24.930	535	250	473	28,6	
355	753 051 024	39.500	620	300	533	32,3	
400	753 051 025	48.500	650	300	600	36,4	
450	753 051 026	69.800	680	300	675	40,9	
500	753 051 027	96.300	760	350	750	45,5	
560	753 051 028	129.800	800	350	840	50,9	
630	753 051 029	174.000	870	350	945	57,3	



### Bend 45° Type L

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

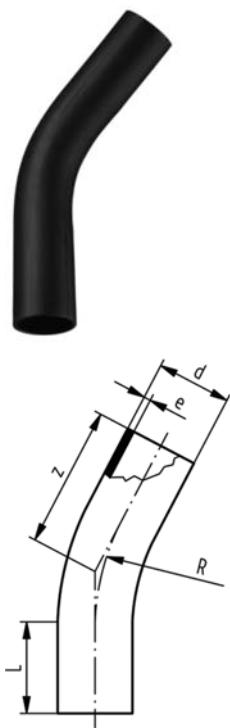


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
90	753 050 813	0.600	177	100	135	5,4	
110	753 050 814	1.100	243	150	165	6,6	
125	753 050 815	1.200	253	150	188	7,4	
140	753 050 816	1.720	262	150	210	8,3	
160	753 050 817	2.200	274	150	240	9,5	
180	753 050 818	3.000	287	150	270	10,7	
200	753 050 819	3.700	299	150	300	11,9	
225	753 050 820	5.000	315	150	338	13,4	
250	753 050 821	10.000	440	250	375	14,8	
280	753 050 822	15.000	460	250	420	16,6	
315	753 050 823	17.800	535	250	473	18,7	
355	753 050 824	25.600	620	300	533	21,1	
400	753 050 825	36.600	650	300	600	23,7	
450	753 050 826	45.300	680	300	675	26,7	
500	753 050 827	62.400	760	350	750	29,7	
560	753 050 828	81.900	800	350	840	33,2	
630	753 050 829	62.400	870	350	945	37,4	

53 06 10

**Bend 30° LS**

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

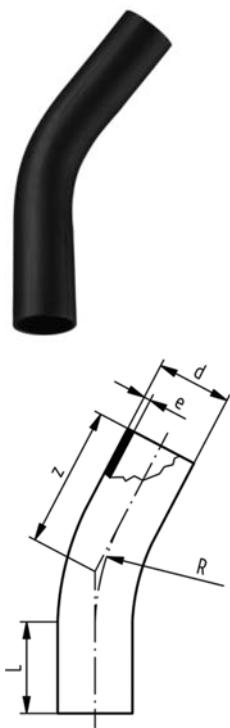


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
32	753 061 008	0.077	113	80	48	2,9	
40	753 061 009	0.120	116	80	60	3,7	
50	753 061 010	0.200	140	100	75	4,6	
63	753 061 011	0.400	150	100	95	5,8	
75	753 061 012	0.520	155	100	113	6,8	
90	753 061 013	0.760	160	100	135	8,2	
110	753 061 014	1.500	219	150	165	10,0	
125	753 061 015	2.000	225	150	188	11,4	
140	753 061 016	2.200	231	150	210	12,7	
160	753 061 017	3.300	239	150	240	14,6	
180	753 061 018	3.700	247	150	270	16,4	
200	753 061 019	4.750	255	150	300	18,2	
225	753 061 020	6.300	266	150	338	20,5	
250	753 061 021	13.100	385	250	375	22,7	
280	753 061 022	16.300	400	250	420	25,4	
315	753 061 023	21.850	460	250	473	28,6	
355	753 061 024	34.900	540	300	533	32,3	
400	753 061 025	45.900	560	300	600	36,4	
450	753 061 026	60.200	580	300	675	40,9	
500	753 061 027	83.300	630	350	750	45,5	
560	753 061 028	108.600	680	350	840	50,9	
630	753 061 029	148.300	730	350	945	57,3	

53 06 08

**Bend 30° LS**

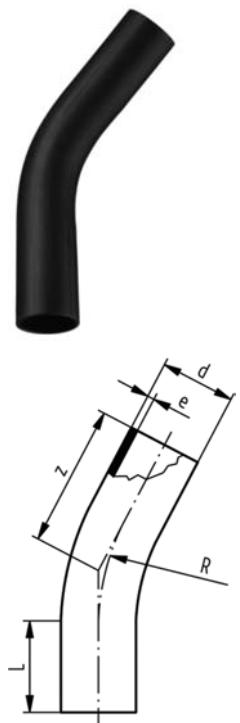
- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- made out of seamless pipe



d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
90	753 060 813	0.500	160	100	135	5,4	
110	753 060 814	1.060	219	150	165	6,6	
125	753 060 815	1.100	225	150	188	7,4	
140	753 060 816	1.720	231	150	210	8,3	
160	753 060 817	1.900	239	150	240	9,5	
180	753 060 818	2.500	247	150	270	10,7	
200	753 060 819	3.200	255	150	300	11,9	
225	753 060 820	7.540	266	150	338	13,4	
250	753 060 821	11.600	385	250	375	14,8	
280	753 060 822	12.800	400	250	420	16,6	
315	753 060 823	25.000	460	250	473	18,7	
355	753 060 824	22.700	540	300	533	21,1	
400	753 060 825	29.800	560	300	600	23,7	
450	753 060 826	39.100	580	300	675	26,7	
500	753 060 827	54.000	650	350	750	29,7	
560	753 060 828	70.300	680	350	840	33,2	
630	753 060 829	95.800	730	350	945	37,4	

## Bend 22° LS

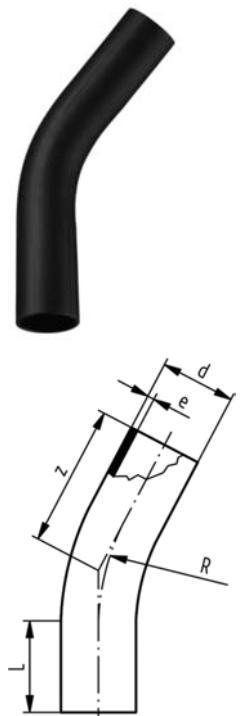
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- made out of seamless pipe



d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
32	753 081 008	0.077	113	80	48	2,9	
40	753 081 009	0.120	116	80	60	3,7	
50	753 081 010	0.200	140	100	75	4,6	
63	753 081 011	0.400	150	100	95	5,8	
75	753 081 012	0.520	155	100	113	6,8	
90	753 081 013	0.760	160	100	135	8,2	
110	753 081 014	1.500	219	150	165	10,0	
125	753 081 015	2.000	225	150	188	11,4	
140	753 081 016	2.200	231	150	210	12,7	
160	753 081 017	3.300	239	150	240	14,6	
180	753 081 018	3.700	247	150	270	16,4	
200	753 081 019	4.750	255	150	300	18,2	
225	753 081 020	6.300	266	150	338	20,5	
250	753 081 021	13.100	385	250	375	22,7	
280	753 081 022	16.300	400	250	420	25,4	
315	753 081 023	21.845	460	250	473	28,6	
355	753 081 024	34.900	540	300	533	32,3	
400	753 081 025	45.900	560	300	600	36,4	
450	753 081 026	60.200	580	300	675	40,9	
500	753 081 027	83.300	650	350	750	45,5	
560	753 081 028	108.600	680	350	840	50,9	
630	753 081 029	148.300	730	350	945	57,3	

## Bend 22° LS

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

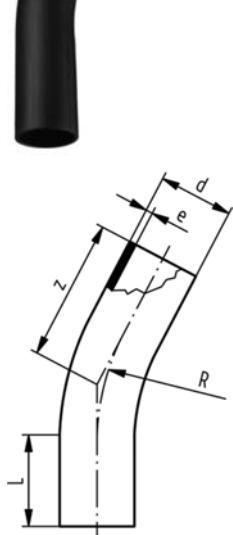


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
90	753 080 813	0.500	160	100	135	5,4	
110	753 080 814	1.060	219	150	165	6,6	
125	753 080 815	1.100	225	150	188	7,4	
140	753 080 816	1.720	231	150	210	8,3	
160	753 080 817	1.900	239	150	240	9,5	
180	753 080 818	2.500	247	150	270	10,7	
200	753 080 819	3.200	255	150	300	11,9	
225	753 080 820	7.540	266	150	338	13,4	
250	753 080 821	11.600	385	250	375	14,8	
280	753 080 822	12.800	400	250	420	16,6	
315	753 080 823	25.000	460	250	473	18,7	
355	753 080 824	22.700	540	300	533	21,1	
400	753 080 825	29.800	560	300	600	23,7	
450	753 080 826	39.100	580	300	675	26,7	
500	753 080 827	54.000	650	350	750	29,7	
560	753 080 828	70.300	680	350	840	33,2	
630	753 080 829	95.800	730	350	945	37,4	



## Bend 11° LS

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- made out of seamless pipe

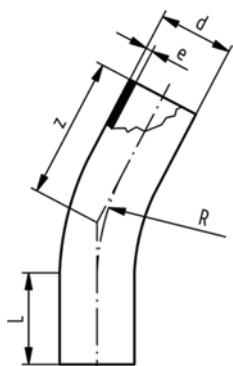


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
32	753 091 008	0.077	113	80	48	2.9	
40	753 091 009	0.120	116	80	60	3.7	
50	753 091 010	0.200	140	100	75	4.6	
63	753 091 011	0.400	150	100	95	5.8	
75	753 091 012	0.520	155	100	113	6.8	
90	753 091 013	0.760	160	100	135	8.2	
110	753 091 014	1.500	219	150	165	10.0	
125	753 091 015	2.000	225	150	188	11.4	
140	753 091 016	2.200	231	150	210	12.7	
160	753 091 017	3.300	239	150	240	14.6	
180	753 091 018	3.700	247	150	270	16.4	
200	753 091 019	4.750	255	150	300	18.2	
225	753 091 020	6.300	266	150	338	20.5	
250	753 091 021	13.100	385	250	375	22.7	
280	753 091 022	16.300	400	250	420	25.4	
315	753 091 023	21.845	460	250	473	28.6	
355	753 091 024	34.900	540	300	533	32.3	
400	753 091 025	45.900	560	300	600	36.4	
450	753 091 026	60.200	580	300	675	40.9	
500	753 091 027	83.300	650	350	750	45.5	
560	753 091 028	108.600	680	350	840	50.9	
630	753 091 029	148.300	730	350	945	57.3	



## Bend 11° LS

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- made out of seamless pipe

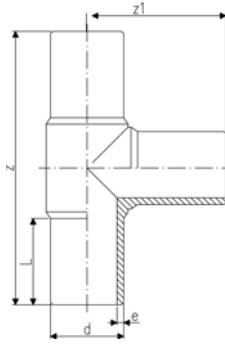


d [mm]	Code	kg	z [mm]	L [mm]	R [mm]	e [mm]	
90	753 090 813	0.500	160	100	135	5.4	
110	753 090 814	1.060	219	150	165	6.6	
125	753 090 815	1.100	225	150	188	7.4	
140	753 090 816	1.720	231	150	210	8.3	
160	753 090 817	1.900	239	150	240	9.5	
180	753 090 818	2.500	247	150	270	10.7	
200	753 090 819	3.200	255	150	300	11.9	
225	753 090 820	7.540	266	150	338	13.4	
250	753 090 821	11.600	385	250	375	14.8	
280	753 090 822	12.800	400	250	420	16.6	
315	753 090 823	25.000	460	250	473	18.7	
355	753 090 824	22.700	540	300	533	21.1	
400	753 090 825	29.800	560	300	600	23.7	
450	753 090 826	39.100	580	300	675	26.7	
500	753 090 827	54.000	650	350	750	29.7	
560	753 090 828	70.300	680	350	840	33.2	
630	753 090 829	95.800	730	350	945	37.4	

**Tee 90°, equal Type L**

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

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

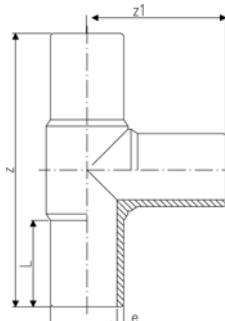


d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]	
20	753 201 006	0.038	150	75	52	3,0	
25	753 201 007	0.054	160	80	52	3,0	
32	753 201 008	0.074	170	85	54	3,0	
40	753 201 009	0.127	190	95	57	3,7	
50	753 201 010	0.217	210	105	63	4,6	
63	753 201 011	0.375	230	115	65	5,8	
75	753 201 012	0.616	264	132	72	6,8	
90	753 201 013	1.031	300	150	81	8,2	
110	753 201 014	1.660	330	165	86	10,0	
125	753 201 015	2.215	366	183	92	11,4	
140	753 201 016	3.200	396	196	92	12,7	
160	753 201 017	4.320	420	210	102	14,6	
180	753 201 018	5.980	460	230	107	16,4	
200	753 201 019	7.760	500	250	117	18,2	
225	753 201 020	10.485	540	270	122	20,5	
250	753 201 001	14.708	575	288	130	22,7	
280	753 200 902	18.670	615	308	139	25,4	
315	753 200 903	26.150	695	346	150	28,6	
355	753 200 904	39.800	818	410	165	32,3	
400	753 200 905	42.495	910	455	180	36,4	
450	753 200 906	77.300	970	485	195	40,9	
500	753 200 907	101.000	1060	530	215	45,5	
*560	753 200 908	153.300	1510			50,9	
*630	753 200 909	205.500				57,3	

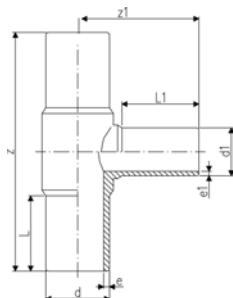
**Tee 90°, equal Type L**

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water

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



d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]	
90	753 200 813	0.780	300	150	80	5,4	
110	753 200 814	1.440	330	165	86	6,6	
125	753 200 815	1.646	366	183	92	7,4	
140	753 200 816	2.120	396	196	92	8,3	
160	753 200 817	3.970	428	214	104	9,5	
180	753 200 818	5.450	460	230	105	10,7	
200	753 200 819	5.910	500	250	115	11,9	
225	753 200 820	8.240	540	270	122	13,4	
250	753 200 821	10.793	575	288	130	14,8	
280	753 200 802	13.810	615	308	139	16,6	
315	753 200 803	18.155	695	346	150	18,7	
355	753 200 804	25.850	818	410	165	21,1	
400	753 200 805	35.015	910	455	180	23,7	
450	753 200 806	56.000	970	485	195	26,7	
500	753 200 807	71.000	1060	530	215	29,7	
*560	753 200 808	99.200	1510	755	230	33,2	
*630	753 200 809	132.700	1630	815	250	37,4	



## Tee 90°, reduced LS moulded

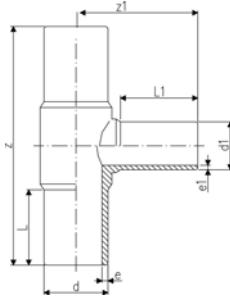
- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water

d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]	
63	50	<b>753 201 044</b>	0.300	215	103	63	56	5.8	4.6	
75	32	<b>753 201 045</b>	0.490	256	108	70	46	6.8	2.9	
75	50	<b>753 201 046</b>	0.530	253	113	70	56	6.8	4.6	
75	63	<b>753 201 047</b>	0.560	255	117	70	63	6.8	5.8	
90	50	<b>753 201 027</b>	0.820	280	117	79	55	8.2	4.6	
90	63	<b>753 201 029</b>	0.775	280	123	79	63	8.2	5.8	
90	75	<b>753 201 030</b>	0.793	272	138	73	68	8.2	6.8	
110	63	<b>753 201 028</b>	1.267	320	147	87	63	10.0	5.8	
110	75	<b>753 201 031</b>	1.244	309	151	82	70	10.0	6.8	
110	90	<b>753 201 032</b>	1.275	320	158	86	79	10.0	8.2	
125	90	<b>753 201 048</b>	2.389	340	170	112	92	11.4	8.2	
125	110	<b>753 201 033</b>	1.860	341	170	90	83	11.4	10.0	
160	63	<b>753 201 034</b>	2.680	343	176	98	65	14.6	5.8	
160	75	<b>753 201 035</b>	2.726	343	180	98	74	14.6	6.8	
160	90	<b>753 201 036</b>	2.775	412	188	101	79	14.6	8.2	
160	110	<b>753 201 037</b>	3.300	412	195	101	82	14.6	10.0	
180	90	<b>753 201 049</b>	4.100	418	200	136	97	16.4	8.2	
180	110	<b>753 201 050</b>	4.379	430	206	130	101	16.4	10.0	
180	160	<b>753 201 038</b>	4.379	411	205	105	94	16.4	14.6	
200	63	<b>753 201 073</b>	7.300	500	190	122	63	18.2	5.8	
200	90	<b>753 201 074</b>	9.730	500	207	122	79	18.2	8.2	
200	110	<b>753 201 075</b>	9.730	500	215	122	82	18.2	10.0	
200	160	<b>753 201 076</b>	9.730	500	234	122	98	18.2	14.6	
225	75	<b>753 201 039</b>	6.500	555	215	120	70	20.5	6.8	
225	90	<b>753 201 040</b>	6.633	558	226	120	80	20.5	8.2	
225	110	<b>753 201 041</b>	6.600	558	235	120	82	20.5	10.0	
225	160	<b>753 201 042</b>	8.095	560	253	120	98	20.5	14.6	
225	180	<b>753 201 043</b>	9.375	560	280	120	105	20.5	16.4	
250	110	<b>753 201 078</b>	9.730	575	242	130	82	22.7	10.0	
250	160	<b>753 201 079</b>	9.730	575	261	127	98	22.7	14.6	
315	110	<b>753 201 051</b>	15.300	695	277	150	82	28.6	10.0	
315	160	<b>753 201 052</b>	16.600	695	296	150	102	28.6	14.6	
315	225	<b>753 201 053</b>	20.500	650	335	170	145	28.6	20.5	
315	250	<b>753 201 054</b>	22.000	695	325	150	130	28.6	22.7	

**Tee 90°, reduced LS moulded**

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)

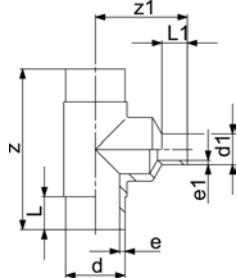
- 5 bar Gas / 10 bar Water



d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]	e1 [mm]	
90	50	<b>753 201 827</b>	0.630	275	117	79	55	5.4	3,0	3,0	
90	63	<b>753 200 829</b>	0.560	275	123	79	63	5.4	3,8	3,8	
90	75	<b>753 200 830</b>	0.593	272	139	74	71	5.4	4,5	4,5	
110	63	<b>753 200 828</b>	0.900	318	147	82	63	6,6	3,8	3,8	
110	75	<b>753 200 831</b>	0.882	315	152	84	70	6,6	4,5	4,5	
110	90	<b>753 200 832</b>	0.941	318	158	82	79	6,6	5,4	5,4	
125	110	<b>753 200 833</b>	1.282	334	168	84	83	7,4	6,6	6,6	
160	63	<b>753 200 834</b>	1.950	330	130	86	63	9,5	3,8	3,8	
160	75	<b>753 200 835</b>	1.960	343	180	98	74	9,5	4,5	4,5	
160	90	<b>753 200 836</b>	1.972	410	188	98	79	9,5	5,4	5,4	
160	110	<b>753 200 837</b>	2.414	410	195	98	82	9,5	6,6	6,6	
180	90	<b>753 200 844</b>	3.218	422	204	134	97	10,7	5,4	5,4	
180	160	<b>753 200 838</b>	5.890	411	205	105	94	10,7	9,5	9,5	
200	63	<b>753 201 873</b>	6.800	500	190	122	63	11,9	3,8	3,8	
200	90	<b>753 201 874</b>	6.900	500	207	122	79	11,9	5,4	5,4	
200	110	<b>753 201 875</b>	7.200	500	215	122	82	11,9	6,6	6,6	
200	160	<b>753 201 876</b>	7.400	500	234	122	98	11,9	9,5	9,5	
225	75	<b>753 200 839</b>	4.600	555	277	120	70	13,4	4,5	4,5	
225	90	<b>753 200 840</b>	4.732	555	226	127	80	13,4	5,4	5,4	
225	110	<b>753 200 841</b>	4.700	555	235	127	82	13,4	6,6	6,6	
225	160	<b>753 200 842</b>	5.922	555	253	127	98	13,4	9,5	9,5	
225	180	<b>753 200 843</b>	7.211	550	280	120	105	13,4	10,7	10,7	
250	110	<b>753 201 878</b>	9.400	575	242	130	82	14,8	6,6	6,6	
250	160	<b>753 201 879</b>	9.800	575	261	130	98	14,8	9,5	9,5	
315	110	<b>753 200 851</b>	10.800	695	277	150	82	18,7	6,6	6,6	
315	160	<b>753 200 852</b>	12.200	695	296	150	102	18,7	9,5	9,5	
315	225	<b>753 200 853</b>	14.500	650	335	170	145	18,7	13,4	13,4	
315	250	<b>753 200 854</b>	15.500	695	325	150	130	18,7	14,8	14,8	

**Tee 90°, reduced Type L with welded reducer**

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

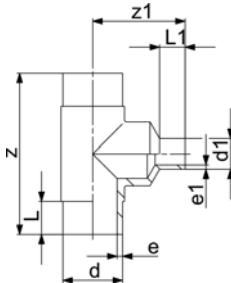


<b>d [mm]</b>	<b>d1 [mm]</b>	<b>Code</b>	<b>kg</b>	<b>z [mm]</b>	<b>z1 [mm]</b>	<b>L [mm]</b>	<b>L1 [mm]</b>	<b>e [mm]</b>	<b>e1 [mm]</b>	
25	20	<b>753 201 002</b>	0.053	160		52	52	3,0	3,0	
32	20	<b>753 201 003</b>	0.094	170	105	54	52	3,0	3,0	
32	25	<b>753 201 004</b>	0.098	170	110	54	52	3,0	3,0	
40	20	<b>753 201 005</b>	0.155	190	120	57	52	3,7	3,0	
40	25	<b>753 201 069</b>	0.160	190	120	57	52	3,7	3,0	
40	32	<b>753 201 070</b>	0.160	190	120	57	52	3,7	3,0	
50	20	<b>753 201 072</b>	0.252	210	140	63	52	4,6	3,0	
50	25	<b>753 201 077</b>	0.260	210	130	63	52	4,6	3,0	
50	32	<b>753 201 080</b>	0.267	210	130	63	53	4,6	3,0	
50	40	<b>753 201 081</b>	0.276	210	130	63	57	4,6	3,7	
63	32	<b>753 201 082</b>	0.460	230	140	65	53	5,8	3,0	
63	40	<b>753 201 116</b>	0.480	230	145	65	57	5,8	3,7	
75	40	<b>753 201 084</b>	0.755	264	180	72	57	6,8	3,7	
125	63	<b>753 201 085</b>	2.850	366	225	92	61	11,4	5,8	
125	75	<b>753 201 086</b>	2.880	366	235	92	72	11,4	6,8	
140	75	<b>753 201 087</b>	4.050	396	230	92	70	12,7	6,8	
140	90	<b>753 201 089</b>	4.095	396	235	92	79	12,7	8,2	
140	110	<b>753 201 090</b>	3.600	396	240	92	82	12,7	10,0	
140	125	<b>753 201 091</b>	4.170	396	240	92	90	12,7	11,4	
160	125	<b>753 201 092</b>	5.715	420	265	102	92	14,6	11,4	
160	140	<b>753 201 093</b>	5.895	420	270	102	96	14,6	12,7	
180	125	<b>753 201 094</b>	8.930	460	285	107	92	16,4	11,4	
180	140	<b>753 201 095</b>	9.070	460	295	107	110	16,4	12,7	
200	125	<b>753 201 096</b>	10.460	500	295	117	92	18,2	11,4	
200	140	<b>753 201 097</b>	10.570	500	310	117	110	18,2	12,7	
200	180	<b>753 201 098</b>	9.500	500	310	117	110	18,2	16,4	
225	125	<b>753 201 099</b>	14.470	540	320	122	92	20,5	11,4	
225	140	<b>753 201 100</b>	14.574	540	335	122	110	20,5	12,7	
225	200	<b>753 201 101</b>	14.925	540	340	122	117	20,5	18,2	
250	180	<b>753 201 102</b>	18.890	576	350	130	105	22,7	16,4	
250	200	<b>753 201 103</b>	19.220	576	360	130	112	22,7	18,2	
250	225	<b>753 201 104</b>	19.690	576	390	130	120	22,7	20,5	
280	200	<b>753 201 105</b>	24.520	616	410	139	112	25,4	18,2	
280	225	<b>753 201 106</b>	24.755	616	420	139	120	25,4	20,5	
280	250	<b>753 201 107</b>	25.210	616	420	139	130	25,4	22,7	
315	200	<b>753 201 108</b>	33.950	690	470	150	134	28,6	18,2	
315	280	<b>753 201 109</b>	34.950	690	480	150	139	28,6	25,4	
355	250	<b>753 201 110</b>	48.900	818	530	165	130	32,3	22,7	
355	280	<b>753 201 111</b>	49.300	818	480	165	139	32,3	25,4	
355	315	<b>753 201 112</b>	49.690	818	480	165	150	32,3	28,6	
400	280	<b>753 201 113</b>	52.915	910	530	180	139	36,4	25,4	
400	315	<b>753 201 114</b>	53.625	910	580	180	150	36,4	28,6	
400	355	<b>753 201 115</b>	54.075	910	675	180	165	36,4	32,3	

## Tee 90°, reduced LS with welded reducer

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)

- 5 bar Gas / 10 bar Water

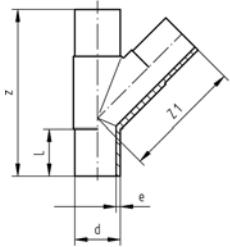


d [mm]	d1 [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]	
125	63	<b>753 200 801</b>	2.115	366	215	92	61	7.4	3.8	
125	75	<b>753 200 810</b>	2.140	366	235	92	72	7.4	4.5	
125	90	<b>753 200 811</b>	2.180	366	235	92	80	7.4	5.4	
140	75	<b>753 200 812</b>	2.820	396	240	92	70	8.3	4.5	
140	90	<b>753 200 822</b>	2.855	396	240	92	78	8.3	5.4	
140	110	<b>753 200 823</b>	2.910	396	235	92	82	8.3	6.6	
140	125	<b>753 200 824</b>	2.955	396	240	92	87	8.3	7.4	
160	125	<b>753 200 825</b>	3.970	428	265	104	90	9.5	5.4	
160	140	<b>753 200 826</b>	4.070	428	280	104	96	9.5	8.3	
180	110	<b>753 200 827</b>	5.250	460	285	105	92	10.7	6.6	
180	125	<b>753 200 845</b>	5.070	460	285	105	90	10.7	7.4	
180	140	<b>753 200 846</b>	5.290	460	305	105	110	10.7	8.3	
200	125	<b>753 200 847</b>	7.100	500	310	115	92	11.9	7.4	
200	140	<b>753 200 848</b>	7.200	500	315	115	110	11.9	8.3	
200	180	<b>753 200 849</b>	6.900	500	315	115	110	11.9	10.7	
225	125	<b>753 200 850</b>	8.620	540	320	122	92	13.4	7.4	
225	140	<b>753 200 855</b>	8.780	540	345	122	110	13.4	8.3	
225	200	<b>753 200 856</b>	9.300	540	335	122	115	13.4	11.9	
250	180	<b>753 200 857</b>	15.000	576	340	130	105	14.8	10.7	
250	200	<b>753 200 858</b>	15.440	576	350	130	112	14.8	11.9	
250	225	<b>753 200 859</b>	15.620	576	370	130	120	14.8	13.4	
280	200	<b>753 200 860</b>	19.200	616	400	139	112	16.6	11.9	
280	225	<b>753 200 861</b>	19.500	616	400	139	120	16.6	13.4	
280	250	<b>753 200 862</b>	20.120	616	400	139	130	16.6	14.8	
315	200	<b>753 200 863</b>	18.700	690	480	150	134	18.7	11.9	
315	280	<b>753 200 864</b>	26.940	690	480	150	139	18.7	16.6	
355	250	<b>753 200 865</b>	35.770	818	480	165	130	21.1	14.8	
355	280	<b>753 200 866</b>	36.330	818	480	165	139	21.1	16.6	
355	315	<b>753 200 867</b>	37.740	818	490	165	150	21.1	18.7	
400	280	<b>753 200 868</b>	48.330	910	540	180	139	23.7	16.6	
400	315	<b>753 200 869</b>	48.880	910	580	180	150	23.7	18.7	
400	355	<b>753 200 870</b>	50.020	910	675	180	165	23.7	21.1	

53 25 10

### Tee 45°, equal Type L

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

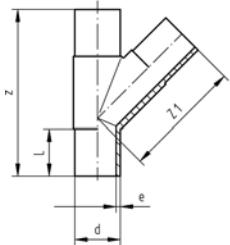


d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]	
63	753 251 011	0.500	255	158	63	5,8	
75	753 251 012	0.800	301	190	70	6,8	
90	753 251 013	1.300	368	234	79	8,2	
110	753 251 014	1.800	395	260	82	10,0	

53 25 10

### Tee 45°, equal Type L

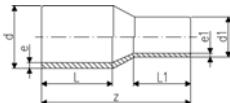
- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water



d [mm]	Code	kg	z [mm]	z1 [mm]	L [mm]	e [mm]	
90	753 251 063	0.800	368	234	79	5,4	
110	753 251 064	1.400	395	260	82	6,6	

**Reducer LS**

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

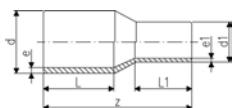


d [mm]	d1 [mm]	Code	kg	z [mm]	L [mm]	L1 [mm]	e [mm]	e1 [mm]	
25	20	<b>753 901 038</b>	0.022	115	52	52	3,0	3,0	
32	20	<b>753 901 042</b>	0.028	120	54	52	3,0	3,0	
32	25	<b>753 901 041</b>	0.031	120	54	52	3,0	3,0	
40	20	<b>753 901 048</b>	0.040	130	57	52	3,7	3,0	
40	25	<b>753 901 047</b>	0.043	130	57	52	3,7	3,0	
40	32	<b>753 901 046</b>	0.047	130	57	53	3,7	3,0	
50	20	<b>753 901 055</b>	0.064	150	63	52	4,6	3,0	
50	25	<b>753 901 054</b>	0.066	140	63	52	4,6	3,0	
50	32	<b>753 901 053</b>	0.067	140	63	53	4,6	3,0	
50	40	<b>753 901 052</b>	0.079	140	63	57	4,6	3,7	
63	32	<b>753 901 060</b>	0.109	150	65	53	5,8	3,0	
63	40	<b>753 901 059</b>	0.119	150	65	57	5,8	3,7	
63	50	<b>753 901 058</b>	0.130	150	65	63	5,8	4,6	
75	40	<b>753 901 063</b>	0.178	170	72	57	6,8	3,7	
75	50	<b>753 901 064</b>	0.191	170	72	63	6,8	4,6	
75	63	<b>753 901 065</b>	0.216	170	72	65	6,8	5,8	
90	50	<b>753 901 072</b>	0.291	190	81	63	8,2	4,6	
90	63	<b>753 901 071</b>	0.317	190	81	65	8,2	5,8	
90	75	<b>753 901 070</b>	0.361	190	81	70	8,2	6,8	
110	63	<b>753 901 078</b>	0.469	205	86	65	10,0	5,8	
110	75	<b>753 901 077</b>	0.497	205	86	70	10,0	6,8	
110	90	<b>753 901 076</b>	0.557	205	86	81	10,0	8,2	
125	63	<b>753 901 083</b>	0.579	214	87	63	11,4	5,8	
125	75	<b>753 901 082</b>	0.660	210	92	72	11,4	6,8	
125	90	<b>753 901 081</b>	0.735	212	92	81	11,4	8,2	
125	110	<b>753 901 080</b>	0.819	212	92	86	11,4	10,0	
140	75	<b>753 901 086</b>	0.560	230	110	70	12,7	6,8	
140	90	<b>753 901 087</b>	0.690	230	110	79	12,7	8,2	
140	110	<b>753 901 084</b>	0.820	230	110	88	12,7	10,0	
140	125	<b>753 901 085</b>	0.988	235	110	90	12,7	11,4	
160	90	<b>753 901 088</b>	1.060	244	120	79	14,6	8,2	
160	110	<b>753 901 090</b>	1.240	244	102	86	14,6	10,0	
160	125	<b>753 901 089</b>	1.403	245	102	92	14,6	11,4	
160	140	<b>753 901 032</b>	1.350	260	120	110	14,6	12,7	
180	90	<b>753 901 073</b>	1.530	245	105	79	16,4	8,2	
180	110	<b>753 901 074</b>	1.720	270	105	82	16,4	10,0	
180	125	<b>753 901 091</b>	1.753	258	107	92	16,4	11,4	
180	140	<b>753 901 075</b>	1.980	270	120	110	16,4	12,7	
180	160	<b>753 901 033</b>	2.044	255	107	102	16,4	14,6	
200	140	<b>753 901 066</b>	2.310	275	120	110	18,2	12,7	
200	160	<b>753 901 092</b>	2.472	265	117	102	18,2	14,6	
200	180	<b>753 901 034</b>	2.580	265	117	107	18,2	16,4	
225	140	<b>753 901 067</b>	2.900	295	130	110	20,5	12,7	
225	160	<b>753 901 096</b>	3.118	279	122	102	20,5	14,6	
225	180	<b>753 901 095</b>	3.277	280	122	107	20,5	16,4	
225	200	<b>753 901 094</b>	3.538	280	122	117	20,5	18,2	
250	160	<b>753 901 000</b>	2.385	300	130	100	22,7	14,6	
250	180	<b>753 901 068</b>	4.050	295	130	105	22,7	16,4	
250	200	<b>753 901 001</b>	2.385	315	130	112	22,7	18,2	
250	225	<b>753 901 002</b>	2.385	332	130	120	22,7	20,5	
280	200	<b>753 901 098</b>	6.850	333	140	112	25,4	18,2	
280	225	<b>753 901 099</b>	6.090	335	140	120	25,4	20,5	
280	250	<b>753 901 003</b>	2.385	340	140	130	25,4	22,7	
315	200	<b>753 901 004</b>	2.385	380	180	134	28,6	18,2	
315	225	<b>753 901 097</b>	7.790	365	150	120	28,6	20,5	
315	250	<b>753 901 005</b>	2.385	365	150	130	28,6	22,7	
315	280	<b>753 901 012</b>	8.800	365	150	139	28,6	25,4	
355	250	<b>753 901 013</b>	9.100	390	165	130	32,3	22,7	
355	280	<b>753 901 014</b>	9.500	390	165	139	32,3	25,4	
355	315	<b>753 901 015</b>	9.900	390	165	150	32,3	28,6	
400	280	<b>753 901 016</b>	10.420	415	180	139	36,4	25,4	
400	315	<b>753 901 017</b>	11.130	415	180	150	36,4	28,6	
400	355	<b>753 901 018</b>	11.600	420	180	165	36,4	32,3	

**Reducer LS**

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)

- 5 bar Gas / 10 bar Water



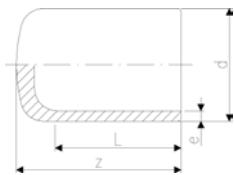
<b>d</b> [mm]	<b>d1</b> [mm]	<b>Code</b>	<b>kg</b>	<b>z</b> [mm]	<b>L</b> [mm]	<b>L1</b> [mm]	<b>e</b> [mm]	<b>e1</b> [mm]	
90	63	<b>753 900 872</b>	0.216	182	79	70	5,4	3,8	
90	75	<b>753 900 870</b>	0.202	185	79	70	5,4	4,5	
110	63	<b>753 900 877</b>	0.326	185	82	63	6,6	3,8	
110	90	<b>753 900 876</b>	0.650	205	85	80	6,6	5,4	
125	90	<b>753 900 881</b>	0.700	215	90	80	7,4	5,4	
125	110	<b>753 900 880</b>	0.810	215	90	85	7,4	6,6	
140	75	<b>753 900 886</b>	0.560	230	112	70	8,3	4,5	
140	90	<b>753 900 887</b>	0.610	230	112	79	8,3	5,4	
140	110	<b>753 900 884</b>	0.660	230	112	82	8,3	6,6	
140	125	<b>753 900 885</b>	0.712	235	115	87	8,3	7,4	
160	90	<b>753 900 888</b>	0.752	248	120	85	9,5	5,4	
160	110	<b>753 900 890</b>	9.970	245	100	85	9,5	6,6	
160	125	<b>753 900 889</b>	1.380	245	100	90	9,5	7,4	
160	140	<b>753 900 831</b>	1.380	260	120	110	9,5	8,3	
180	90	<b>753 900 873</b>	1.010	237	105	79	10,7	5,4	
180	110	<b>753 900 874</b>	1.600	270	120	92	10,7	6,6	
180	125	<b>753 900 891</b>	1.710	255	105	90	10,7	7,4	
180	140	<b>753 900 875</b>	1.720	270	120	110	10,7	8,3	
180	160	<b>753 900 832</b>	2.100	255	105	100	10,7	9,5	
200	140	<b>753 900 866</b>	1.800	275	120	110	11,9	8,3	
200	160	<b>753 900 892</b>	2.370	265	115	100	11,9	9,5	
200	180	<b>753 900 893</b>	2.580	265	115	105	11,9	10,7	
225	140	<b>753 900 867</b>	1.450	280	120	100	13,4	8,3	
225	160	<b>753 900 896</b>	2.980	280	120	100	13,4	9,5	
225	180	<b>753 900 895</b>	3.160	280	120	105	13,4	10,7	
225	200	<b>753 900 894</b>	3.750	280	120	115	13,4	11,9	
250	160	<b>753 900 800</b>	2.850	290	130	100	14,8	9,5	
250	180	<b>753 900 868</b>	3.100	295	130	105	14,8	10,7	
250	200	<b>753 900 801</b>	3.210	302	130	112	14,8	11,9	
250	225	<b>753 900 802</b>	2.385	332	162	120	14,8	13,4	
280	200	<b>753 900 898</b>	3.800	333	140	112	16,6	11,9	
280	225	<b>753 900 899</b>	4.100	335	140	120	16,6	13,4	
280	250	<b>753 900 803</b>	2.385	340	140	130	16,6	14,8	
315	200	<b>753 900 804</b>	6.200	380	180	134	18,7	11,9	
315	225	<b>753 900 807</b>	6.200	365	150	120	18,7	13,4	
315	250	<b>753 900 805</b>	6.420	365	150	130	18,7	14,8	
315	280	<b>753 900 806</b>	5.940	365	150	140	18,7	16,6	
355	250	<b>753 900 808</b>	5.270	390	165	130	21,1	14,8	
355	280	<b>753 900 809</b>	5.830	390	165	140	21,1	16,6	
355	315	<b>753 900 810</b>	7.240	390	165	150	21,1	18,7	
400	280	<b>753 900 811</b>	7.930	415	180	140	23,7	16,6	
400	315	<b>753 900 812</b>	8.480	415	180	150	23,7	18,7	
400	355	<b>753 900 813</b>	9.620	420	180	165	23,7	21,1	

**Cap Type L**

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

**Note:**

- \* Fabricated part using pipe



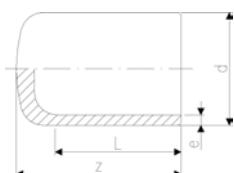
d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
20	753 961 006	0.009	52	52	3,0	
25	753 961 007	0.013	52	52	3,0	
32	753 961 008	0.017	54	54	3,0	
40	753 961 009	0.031	57	57	3,7	
50	753 961 010	0.050	63	63	4,6	
63	753 961 011	0.085	65	65	5,8	
75	753 961 012	0.145	80	72	6,8	
90	753 961 013	0.240	90	81	8,2	
110	753 961 014	0.387	98	86	10,0	
125	753 961 015	0.546	105	92	11,4	
140	753 961 016	0.835	136	92	12,7	
160	753 961 017	1.026	120	102	14,6	
180	753 961 018	1.369	128	107	16,4	
200	753 961 019	1.839	138	115	18,2	
225	753 961 020	2.500	148	122	20,5	
250	753 961 021	3.927	205	130	22,7	
280	753 960 922	5.344	235	139	25,4	
315	753 960 923	7.176	255	150	28,6	
355	753 960 924	9.780	280	165	32,3	
400	753 960 925	13.370	310	180	36,4	
*450	753 960 926	20.800	275	195	40,9	
*500	753 960 927	28.400	297	212	45,5	
*560	753 960 928	39.100	325	230	50,9	
*630	753 960 929	59.700	355	250	57,3	

**Cap Type L**

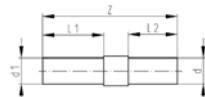
- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water

**Note:**

- \* Fabricated part using pipe



d [mm]	Code	kg	z [mm]	L [mm]	e [mm]	
50	753 960 810	0.036	70	55	3,0	
63	753 960 811	0.066	82	63	3,8	
75	753 960 812	0.105	92	70	4,5	
90	753 960 813	0.220	90	81	5,4	
110	753 960 814	0.350	98	86	6,6	
125	753 960 815	0.520	105	92	7,4	
140	753 960 816	0.522	136	92	8,3	
160	753 960 817	0.990	120	102	9,5	
180	753 960 818	1.360	128	107	10,7	
200	753 960 819	1.880	138	115	11,9	
225	753 960 820	2.420	148	122	13,4	
250	753 960 821	2.547	205	130	14,8	
280	753 960 822	3.523	235	139	16,6	
315	753 960 823	4.758	255	150	18,7	
355	753 960 824	6.510	280	165	21,1	
400	753 960 825	9.330	310	180	23,7	
*450	753 960 826	15.800	265	195	26,7	
*500	753 960 827	21.400	287	212	29,7	
*560	753 960 828	29.400	310	230	33,2	
*630	753 960 829	41.400	340	250	37,4	



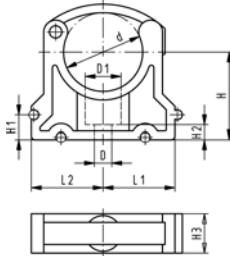
## Transition Fittings PE / steel

- PE 100 SDR 11 (ISO S5)
- 6 bar Gas / 16 bar Water
- Electrofusion weldable
- Steel pipe acc. to EN 10208-1, PE coated for corrosion resistance

\* Steel pipe without plastic shroud

d [mm]	d1 [inch]	Code	kg	d1 [mm]	z [mm]	L1 [mm]	L2 [mm]	
*20	½	<b>775 641 502</b>	0.500	21	450	310	85	
25	¾	<b>775 641 507</b>	0.640	27	460	310	100	
32	1	<b>775 641 510</b>	0.940	34	460	310	100	
40	1 ¼	<b>775 641 514</b>	1.200	42	460	310	100	
50	1 ½	<b>775 641 518</b>	1.440	48	460	310	100	
63	2	<b>775 641 524</b>	1.930	60	460	310	100	
75	2 ½	<b>775 641 632</b>	2.800	76	510	310	100	
90	3	<b>775 641 636</b>	3.700	89	520	310	100	
110	3	<b>775 641 640</b>	3.800	89	520	310	100	
110	4	<b>775 641 641</b>	6.600	114	520	310	100	
125	4	<b>775 641 645</b>	6.700	114	520	310	100	
160	6	<b>775 641 655</b>	11.300	168	580	310	120	
180	6	<b>775 641 659</b>	11.800	168	580	310	130	
200	8	<b>775 642 664</b>	19.100	219	600	310	130	
225	8	<b>775 642 669</b>	19.500	219	600	310	130	
250	8	<b>775 642 665</b>	20.500	219	620	310	160	
250	10	<b>775 642 666</b>	30.000	273	620	310	160	
280	10	<b>775 642 673</b>	31.000	273	620	310	160	
315	12	<b>775 642 672</b>	47.000	324	630	310	220	
355	12	<b>775 642 675</b>	49.000	324	630	310	220	
400	16	<b>775 642 678</b>	94.000	406	640	310	220	

# Pipe Clips



## KLIP-IT Pipe Clips Type 061H, PP metric

### Model:

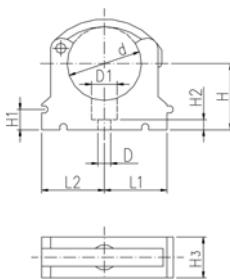
- For mm-pipes d16-d63
- Material: PP black, UV resistant
- Minimum order quantity: standard packagings SP
- d16 - d63: height designed for Ball Valve Type 546
- \* d16 to d32 without bracket

d [mm]	Code	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC	
*16	167 061 035	0.006	6	11	14	17	27	10	6	16	M5	
*20	167 061 036	0.008	6	11	17	19	27	10	6	16	M5	
*25	167 061 037	0.009	6	11	19	22	30	10	6	16	M5	
*32	167 061 038	0.012	6	11	24	27	36	10	6	16	M5	
40	167 061 039	0.027	7	14	34	34	44	10	7	22	M6	
50	167 061 040	0.031	7	14	37	37	51	10	7	22	M6	
63	167 061 041	0.054	9	17	45	45	64	10	10	25	M8	

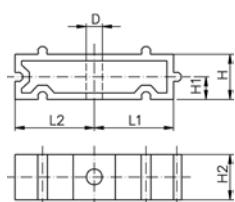
## KLIP-IT Pipe Clips Type 061, PP metric

### Model:

- For mm pipes
- Material: Clip and safety clip PP black, UV resistant
- d16 - d63: Height designed for Ball Valve Type 546
- Minimum order quantity: standard packagings SP



d [mm]	d [inch]	Code	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC	
*10		167 061 003	5	8	11	14	20	10	6	12	M4	
*12		167 061 004	5	8	11	14	21	10	6	12	M5	
*16		167 061 035	6	11	14	17	27	10	6	16	M5	
*20		167 061 036	6	11	17	19	27	10	6	16	M5	
*25		167 061 037	6	11	19	22	30	10	6	16	M5	
*32		167 061 038	6	11	24	27	36	10	6	16	M5	
40		167 061 039	7	14	34	34	44	10	7	22	M6	
50		167 061 040	7	14	37	37	51	10	7	22	M6	
63		167 061 041	9	17	45	45	64	10	10	25	M8	
75	2 1/2	167 061 012	9	17	52	52	58	10	10	25	M8	
90	3	167 061 013	9	17	65	65	65	10	10	28	M8	
110	4	167 061 014	9	17	79	79	75	10	10	28	M8	
125		167 061 015	9	17	88	88	90	10	10	32	M8	
140	5	167 061 016	9	17	98	98	110	10	10	32	M8	
160		167 061 017	9	17	109	109	108	10	10	32	M8	



## KLIP-IT Spacer Type 061, PP

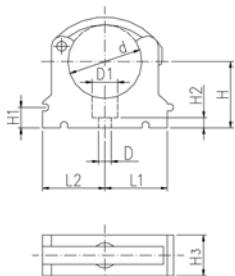
### Model:

- For pipe clips Type 061/061H, PP black, UV resistant
- **Minimum order quantity: standard packaging SP**

d [mm]	Inch [inch]	Code	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	
10 - 12	1/8 - 1/4	167 061 153	0.003	5	11	14	20	10	12	M4	
16	5/8	167 061 155	0.006	6	14	17	20	10	16	M5	
20	1/2	167 061 156	0.006	6	17	19	20	10	16	M5	
25	3/4	167 061 157	0.007	6	19	22	20	10	16	M5	
32	1	167 061 158	0.008	6	24	27	20	10	16	M5	
40	1 1/4	167 061 159	0.016	7	34	34	20	10	22	M6	
50	1 1/2	167 061 160	0.017	7	37	37	20	10	22	M6	
63	2	167 061 161	0.024	9	45	45	20	10	25	M8	
75	2 1/2	167 061 162	0.027	9	52	52	20	10	25	M8	
90	3	167 061 163	0.040	9	65	65	20	10	28	M8	
110	4	167 061 164	0.048	9	79	79	20	10	28	M8	
125	4 1/2	167 061 165	0.059	9	88	88	20	10	32	M8	
140	5	167 061 166	0.065	9	98	98	20	10	32	M8	
160	6	167 061 167	0.074	9	109	109	20	10	32	M8	



\*



## KLIP-IT Pipe Clips Type 061, PE metric

### Model:

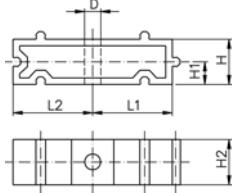
- For mm pipes
- Material: Clip PE and safety clip PP black
- **Minimum order quantity: standard packaging SP**

- Height not designed for ball valve 546. Please use spacer 73 06 11.

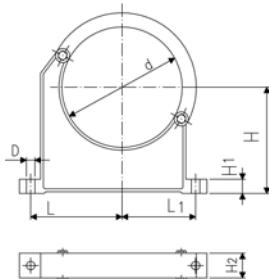
d [mm]	Code	kg	D [mm]	D1 [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	SC	
*10	173 061 003	0.003	5	8	11	14	20	10	6	12	M4	
*12	173 061 004	0.006	5	8	11	14	21	10	6	12	M5	
*16	173 061 005	0.007	6	11	14	17	23	10	6	16	M5	
*20	173 061 006	0.008	6	11	17	19	25	10	6	16	M5	
*25	173 061 007	0.009	6	11	19	22	28	10	6	16	M5	
*32	173 061 008	0.012	6	11	24	27	31	10	6	16	M5	
40	173 061 009	0.022	7	14	34	34	35	10	7	22	M6	
50	173 061 010	0.030	7	14	37	37	40	10	7	22	M6	
63	173 061 011	0.044	9	17	45	45	52	10	10	25	M8	
75	173 061 012	0.062	9	17	52	52	58	10	10	25	M8	
90	173 061 013	0.090	9	17	65	65	65	10	10	28	M8	
110	173 061 014	0.114	9	17	79	79	75	10	10	28	M8	
125	173 061 015	0.174	9	17	88	88	90	10	10	32	M8	
140	173 061 016	0.217	9	17	98	98	110	10	10	32	M8	
160	173 061 017	0.237	9	17	109	109	108	10	10	32	M8	

**KLIP-IT Spacer Type 061, PE****Model:**

- For pipe clips Type 061, PE black, UV resistant
- **Minimum order quantity: standard packaging SP**



d [mm]	Inch	Code	kg	D [mm]	L1 [mm]	L2 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	
16	1/8-1/4	<b>173 061 153</b>	0.003	5	11	14	20	10	12	M4	
	3/8	<b>173 061 155</b>	0.005	6	14	17	20	10	16	M5	
20	1/2	<b>173 061 156</b>	0.006	6	17	19	20	10	16	M5	
25	3/4	<b>173 061 157</b>	0.007	6	19	22	20	10	16	M5	
32	1	<b>173 061 158</b>	0.008	6	24	27	20	10	16	M5	
40	11/4	<b>173 061 159</b>	0.016	7	34	34	20	10	22	M6	
50	11/2	<b>173 061 160</b>	0.017	7	37	37	20	10	22	M6	
63	2	<b>173 061 161</b>	0.025	9	45	45	20	10	25	M8	
75	21/2	<b>173 061 162</b>	0.027	9	52	52	20	10	25	M8	
90	3	<b>173 061 163</b>	0.040	9	65	65	20	10	28	M8	
110	4	<b>173 061 164</b>	0.048	9	79	79	20	10	28	M8	
125	41/2	<b>173 061 165</b>	0.059	9	88	88	20	10	32	M8	
140	5	<b>173 061 166</b>	0.065	9	98	98	20	10	32	M8	
160	6	<b>173 061 167</b>	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]	d [inch]	Code	kg	D [mm]	L [mm]	L1 [mm]	H [mm]	H1 [mm]	H2 [mm]	SC	
90	3	<b>167 060 038</b>	0.163	9	89	71	105	15	33	M 8	
110		<b>167 060 039</b>	0.179	9	94	80	115	15	33	M 8	
125		<b>167 060 040</b>	0.300	11	116	91	130	20	35	M10	
140		<b>167 060 041</b>	0.309	11	121	98	130	20	35	M10	
160		<b>167 060 042</b>	0.348	11	131	107	148	20	35	M10	
180		<b>167 060 043</b>	0.378	11	143	115	163	20	35	M10	
200		<b>167 060 019</b>	0.582	13	152	120	175	25	39	M12	
225		<b>167 060 020</b>	0.612	13	165	132	175	25	39	M12	
250		<b>167 060 021</b>	0.698	13	183	143	200	25	39	M12	
280		<b>167 060 022</b>	0.722	13	198	156	200	25	39	M12	
315		<b>167 060 023</b>	0.842	13	219	172	225	25	39	M12	
355		<b>167 060 024</b>	1.250	17	275	209	258	30	50	M16	
400		<b>167 060 025</b>	1.450	17	300	228	288	30	50	M16	

# Fusion Jointing Machines

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# Manual Butt and Socket Fusion Tools



## SSE Butt fusion tool

- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Heating element diameter 120 mm, 200 mm and 300 mm
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control
- E = electronic temperature control

d [mm]	Type	Performance	Code	kg	
110	SSE 120	115 V/400 W T	790 105 136	2.300	
110	SSE 120	115 V/400 W E	790 105 141	2.400	
180	SSE 200	230 V/800 W T	790 105 052	3.000	
180	SSE 200	230 V/800 W E	790 105 059	3.000	
180	SSE 200	115 V/800 W T	790 105 137	3.000	
180	SSE 200	115 V/800 W E	790 105 142	3.000	
280	SSE 300	230 V/1500 W T	790 105 053	5.540	
280	SSE 300	230 V/1500 W E	790 105 060	5.640	
280	SSE 300	115 V/1500 W T	790 105 138	5.540	
280	SSE 300	115 V/1500 W E	790 105 143	5.640	

## SSE 200 -Set- Butt fusion tool



- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Available as a complete set in a practical metal case
- Heating element-diameter 200 mm
- Table clamp
- T = thermostatic temperature control
- E = electronic temperature control

d [mm]	Performance	Code	kg	
180	230 V/800 W T	790 105 054	7.815	
180	230 V/800 W E	790 105 061	8.800	
180	115 V/800 W T	790 105 139	7.400	
180	115 V/800 W E	790 105 144	7.400	



## SSE 300 -Set- Butt fusion tool

- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Available as a complete set in a practical metal case
- Heating element-diameter 300 mm
- Table clamp
- T = thermostatic temperature control
- E = electronic temperature control

d [mm]	Performance	Code	kg
280	230 V/1500 W T	790 105 055	11.725
280	230 V/1500 W E	790 105 062	11.000
280	115 V/1500 W T	790 105 140	11.000
280	115 V/1500 W E	790 105 145	11.000



## MSE 63/MSE 110 Socket fusion tools

- For fusion jointing of PP, PE and PVDF pipes and fittings
- Size range d 16-110 mm
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- T = thermostatic temperature control
- E = electronic temperature control

d-d [mm]	Type	Performance	Code	kg
16 - 63	MSE 63	230 V/800 W T	790 105 081	1.760
16 - 63	MSE 63	230 V/800 W E	790 105 082	2.000
16 - 63	MSE 63	115 V/800 W T	790 105 096	2.075
16 - 63	MSE 63	115 V/800 W E	790 105 097	2.145
16 - 110	MSE 110	230 V/1500 W T	790 105 083	3.550
16 - 110	MSE 110	230 V/1500 W E	790 105 084	3.200
16 - 110	MSE 110	115 V/1500 W T	790 105 126	3.200
16 - 110	MSE 110	115 V/1500 W E	790 105 127	3.200



## MSE 63/MSE 110 - Set - Socket fusion tools

- For fusion jointing of PP, PE and PVDF pipes and fittings
- Size range d 16-110 mm
- All devices are equipped with on/off switch, mains control and control lamp for heating intervals
- Choice of electronic or thermostatic temperature control
- Support for heating bushes and spigots of d 16 to 63 mm (110 mm)
- Pick up for floor stand or table clamp
- High-quality, non-stick PTFE-coating with long service life
- Monitoring and setting of heating element temperature
- High temperature accuracy over the entire heating surface
- Heating bushes and spigots
- Available as a complete set in a practical metal case
- Table clamp
- Floor stand for MSE 63
- Allen screws and key
- T = thermostatic temperature control
- E = electronic temperature control

d-d [mm]	Type	Performance	Code	kg	
16 - 63	MSE 63	230 V/800 T	<b>790 105 085</b>	8.600	
16 - 63	MSE 63	230 V/800 E	<b>790 105 086</b>	10.180	
16 - 63	MSE 63	115 V/800 T	<b>790 105 098</b>	8.600	
16 - 63	MSE 63	115 V/800 E	<b>790 105 099</b>	8.600	
16 - 110	MSE 110	230 V/1500 T	<b>790 105 087</b>	17.700	
16 - 110	MSE 110	230 V/1500 E	<b>790 105 088</b>	17.680	
16 - 110	MSE 110	115 V/1500 T	<b>790 105 128</b>	14.880	
16 - 110	MSE 110	115 V/1500 E	<b>790 105 129</b>	15.600	

# SG 110 Socket Fusion Machine



## For fusion jointing of PP, PE, PB and PVDF pipes and fittings

- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- Dimension 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	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	

# SG 160 Combined Butt and Socket Fusion Machine



## for fusion jointing PP, PE and PVDF pipes and fittingssize range for butt fusion d 32 - 160

Mobile, very compact and universal plastic fusion machine for use in the workshop and on job sites.

Butt fusion d 32 - 160 mm, all pressure ratings up to PE/PP SDR 11; PVDF SDR 21.  
Socket fusion d 16 - 110 mm

### 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

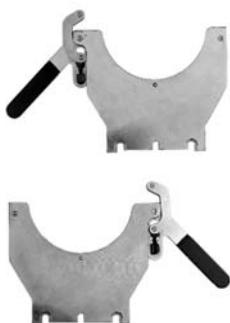
d-d [mm]	Performance	Code	kg	
16 - 160	230 V	790 103 031	44.900	
16 - 160	115 V	790 103 033	45.000	



## Special transport crate

- Compact and sturdy for proper transportation and safe storage
- Multifunctional, can be used as a workbench for ergonomic working position
- Two integrated drawers to store all accessories
- Dimensions 1 m height x 1,2 m length x 0.8 m width

Code	kg	
790 103 099	108.000	



## Base clamping plates

- In order to improve the quality of the fusion joint, and for reliable clamping of long pipes, we recommend using the maximum number of clamping devices.
- For welding of long pipes we recommend to use the outer left and outer right base clamping plates as well.
- L = left
- R = right

d [mm]	Type	Code	kg	
160	L	790 103 010	2.503	
160	R	790 103 011	2.510	



## Inserts, left/right

- For base clamping plate
- Left or right

d [mm]	Code	kg	
32	790 103 019	0.315	
40	790 103 020	0.310	
50	790 103 021	0.302	
63	790 103 022	0.277	
75	790 103 023	0.250	
90	790 103 024	0.224	
110	790 103 025	0.178	
125	790 103 026	0.132	
140	790 103 027	0.079	



## Clamping bracket, left/right

- For base clamping plate
- L = left
- R = right

\* Threaded clamping bracket, for mounting inserts d 32 - 140 mm. An additional insert must be used instead of clamping brackets d 32 - 140 mm, i.e. twice the number of inserts listed must be ordered.

d [mm]	Type	Code	kg
32	L	<b>790 103 039</b>	0.530
40	L	<b>790 103 040</b>	0.530
50	L	<b>790 103 041</b>	0.530
63	L	<b>790 103 042</b>	0.530
75	L	<b>790 103 043</b>	0.530
90	L	<b>790 103 044</b>	0.580
110	L	<b>790 103 045</b>	0.580
125	L	<b>790 103 046</b>	0.606
140	L	<b>790 103 047</b>	0.650
*160	L	<b>790 103 048</b>	0.669
32	R	<b>790 103 059</b>	0.530
40	R	<b>790 103 060</b>	0.530
50	R	<b>790 103 061</b>	0.530
63	R	<b>790 103 062</b>	0.530
75	R	<b>790 103 063</b>	0.530
90	R	<b>790 103 064</b>	0.580
110	R	<b>790 103 065</b>	0.590
125	R	<b>790 103 066</b>	0.605
140	R	<b>790 103 067</b>	0.530
*160	R	<b>790 103 068</b>	0.650



## Prismatic clamping device

- Prismatic clamping device for pick up of clamping jaws for exact alignment of fusion components
- L = left
- R = right

\*Horizontal adjustable

Type	Code	kg
L	<b>790 103 080</b>	6.112
*R	<b>790 103 081</b>	6.118



## Clamping jaws

- For prismatic base units, left/right
- Each code number defines 1 piece prismatic clamping device. For socket fusion 4 pieces are needed.

**	Code	kg
16-32 / 90-110	<b>790 103 085</b>	0.310
30-50 / 50-90	<b>790 103 086</b>	0.330



## Depth stop, complete

- Warrants the correct insertion depth of the pipe in the fittings socket
- Built-in spring for easier removal of fusion components from the heater. Damage to the plastified fusion surfaces is prevented.

Code	kg
<b>790 103 090</b>	0.610



## Heating spigots and bushes

- Aluminium, PTFE coated
- 1 pair is always delivered

d [mm]	Code	kg	
16	<b>790 101 086</b>	0.310	
20	<b>790 101 087</b>	0.315	
25	<b>790 101 088</b>	0.313	
32	<b>790 101 089</b>	0.316	
40	<b>790 101 090</b>	0.329	
50	<b>790 101 091</b>	0.475	
63	<b>790 101 092</b>	0.858	
75	<b>790 101 093</b>	1.157	
90	<b>790 101 094</b>	1.697	
110	<b>790 101 095</b>	2.090	



## Stiffener plate

- For heating bush d 110 mm
- Warrants consistent heat transfer from heater plate to heating bush 110 mm
- Is recommended for socket fusion in the dimension 110 mm

d [mm]	Code	kg	
110	<b>790 101 098</b>	0.264	



## Calibration tool

- For mechanical, standardised calibration of pipe ends in PE, PP and PVDF (to be used with planer)
- easy and time-saving removal of oxide film
- Consistent peeling quality over the entire pipe circumference

d [mm]	Code	kg	
20	<b>790 103 160</b>	0.950	
25	<b>790 103 161</b>	0.950	
32	<b>790 103 162</b>	0.950	
40	<b>790 103 163</b>	0.930	
50	<b>790 103 164</b>	0.950	
63	<b>790 103 165</b>	1.000	
75	<b>790 103 166</b>	1.150	
90	<b>790 103 167</b>	1.250	
110	<b>790 103 168</b>	1.344	

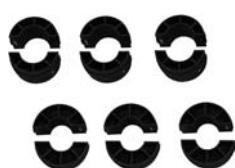
# MC 110 Butt Fusion Machine



## Machine MC 110, complete with electric planer

- Portable butt fusion machine for use in the workshop and on job sites. For fusion jointing of PP and PE pipes and fittings as well as prefabrication of segments in the size range d 20 - 110 mm and up to PN 10.
- Machine MC 110 complete includes: machine mounting, basic machine, 2 base clamping plates (wide), base clamping plate (left narrow), planer, heater thermostatic controlled, table clamp and transport crate.
- Including transport packaging, without accessories

d-d [mm]	Performance	Code	kg	
20 - 110	230 V/ 800 W	790 109 303	31.000	
20 - 110	115 V/ 800 W	790 109 321	31.000	



## Reduction clamping inserts, wide

- 20 - 90 mm
- Each code number defines 1 half shell. Per wide base clamping plate 2 reduction half-shells are needed.

d [mm]	Code	kg	
25	790 109 327	0.150	
32	790 109 328	0.150	
40	790 109 329	0.145	
50	790 109 330	0.129	
56	790 109 342	0.150	
63	790 109 331	0.125	
75	790 109 332	0.113	
90	790 109 333	0.105	



## Reduction clamping inserts, narrow

- Each code number defines 1 half shell. Per wide base clamping plate 2 reduction half-shells are needed.

d [mm]	Code	kg	
25	790 109 335	0.075	
32	790 109 336	0.070	
40	790 109 337	0.125	
50	790 109 338	0.124	
56	790 109 343	0.114	
63	790 109 339	0.110	
75	790 109 340	0.100	
90	790 109 341	0.100	

## PSO 701 Butt Fusion Machine

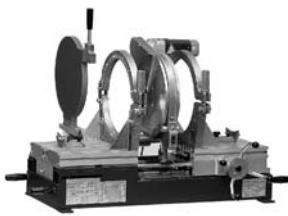


**For fusion jointing of PP and PE pipes and fittings, size range d 40 - 160mm**

- Professional butt fusion machine capable to weld pipes d 160mm up to PN10. The wooden box is usable as working bench as well as for transportation.
- Pressure adjustment via direct load transfer (max. force 100kp)
- Planer and heating element could be swivelled in and out
- High performance heating element thermostatic controlled (PTFE coated)
- The heating element can be used as manual fusion tool
- **V-shaped pipe support** d 40 - 140 mm
- **Reduction clamping inserts** d 40 - 140 mm
- **Base clamping plates** right and left, d 160 mm
- Machine specific tool set

d-d [mm]	Performance	Code	kg	
40 - 160	230 V/800 W	<b>790 301 000</b>	90.000	

# SG 315 Butt Fusion Machine



## SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems. Extremely sturdy design use in the workshop and on job sites.

Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

### 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	115 V	<b>790 130 002</b>	128.000	



## SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems.

The S-version (S = segment) additionally allows prefabrication of segments.

Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

### Basic machine

- integrated swivel tables for equalization of wall offset transverse to axial direction, for segment fusion up to 30°
- optional outer, horizontally removeable clamping devices available
- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- fusion pressure is maintained with a user friendly torque limiter
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine

### Planer

- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends, 1100 W
- for your personal safety, a safety switch has been integrated to prevent unintentional start-up in the working position

### Heater

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

### Additional standard equipment included in the base model

- inner left and right clamping plates, d 315 mm, for pick up of reduction clamping inserts d 90 - 280 mm
- pipe supports d 315 mm for support of fittings
- timer to clock fusion times
- tool set specified to machine

d-d [mm]	Performance	Code	kg	
90 - 315	230 V	790 130 003	150.000	
90 - 315	115 V	790 130 004	143.000	



## SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems. Extremely sturdy design use in the workshop and on job sites.

Equipped with a load cell and a digital display of the fusion force.

Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

### 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
- digital display
- optional outer, horizontally removable 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	790 130 031	150.000	
90 - 315	115 V	790 130 032	128.000	



## SG 315 for butt fusion jointing of PP, PE and PVDF pipes and fittings

The industrial butt fusion machine for pressure piping systems.

The S-version (S = segment) additionally allows prefabrication of segments.

Sizes d 90-315 mm, all pressure ratings up to max. PE d 280 SDR 11; PP d 280 SDR 7.25 and PVDF d 315 SDR 21.

### Basic machine

- integrated swivel tables for equalization of wall offset transverse to axial direction, for segment fusion up to 30°
- optional outer, horizontally removeable clamping devices available
- high precision, distortion-free and robust machine base
- handwheel for easy moving of machine carriage
- fusion pressure is maintained with a user friendly torque limiter
- exact pressure adjustment via direct load transfer
- hardened, hard-chrome plated guide shafts for extreme loads
- handle for safe transport of machine
- load cell
- digital display

### Planer

- optimised cutting geometry for even and chatter-free planing
- powerful parallel planer, swivels in and out for single or double-sided facing of pipe ends, 1100 W
- for your personal safety, a safety switch has been integrated to prevent unintentional start-up in the working position

### Heater

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

### Additional standard equipment included in the base model

- inner left and right clamping plates, d 315 mm, for pick up of reduction clamping inserts d 90 - 280 mm
- pipe supports d 315 mm for support of fittings
- timer to clock fusion times
- tool set specified to machine

d-d [mm]	Performance	Code	kg	
90 - 315	230 V	790 130 033	143.000	
90 - 315	115 V	790 130 034	145.000	



## Reduction clamping inserts, narrow

- d 90 - 280 mm
- Each code number defines 1 piece of reduction clamping insert. Per machine and dimension maximum 8 narrow or wide reduction clamping inserts are needed.
- We recommend 4 wide and 4 narrow half shells.

d [mm]	Code	kg	
90	<b>790 112 098</b>	0.995	
110	<b>790 112 099</b>	1.285	
125	<b>790 112 100</b>	1.245	
140	<b>790 112 101</b>	1.205	
160	<b>790 112 102</b>	1.135	
180	<b>790 112 103</b>	1.010	
200	<b>790 112 104</b>	0.950	
225	<b>790 112 105</b>	0.865	
250	<b>790 112 106</b>	0.770	
280	<b>790 112 107</b>	0.560	

# IR-63 Plus® and IR-225 Plus® Fusion Jointing Machines



## IR-63 Plus® Fully-Equipped Machine

Fully-equipped fusion jointing machine for welding SYGEF® Standard, SYGEF® Plus, PROGEF® Standard, PROGEF® Natural, PROGEF® Plus, PE 100 in dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.

### Supply:

1-phase AC (50/60 Hz) 230 V L/N/PE

### Delivery includes:

- Machine housing complete (1 pcs.)
- Heater assembly (1 pcs.)
- Remote weld device (1 pcs.)
- Facing tool (1 pcs.)
- Transport box (1 pcs.)
- Pipe stop (1 pcs.)
- Clamping inserts d 20-63 mm (8 pcs. per dimension)
- End caps PE d 20-63 mm (4 pcs. per dimension)
- Power supply cable 230 V (1 pcs.)
- Extension cable for remote weld device (1 pcs.)
- Extension cable for heater (1 pcs.)
- Extension cable for facing tool (1 pcs.)
- Cleaning brush No. 8 (1 pcs.)
- Hexagon key 3 mm (1 pcs.)
- Hexagon key 4 mm (1 pcs.)
- Heater protection shield (1 pcs.)
- Clamping unit extension (8 pcs.)
- Socket wrench (facing blades) (1 pcs.)
- Screw driver, Size 0 (1 pcs.)
- HP-Accessory Tray (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	<b>790 131 005</b>	52.000	



## IR-225 Plus® Fully-Equipped Machine with HP Working Table (HP = High Purity)

Fully-equipped fusion jointing machine for welding SYGEF® Standard, SYGEF® Plus, PROGEF® Standard, PROGEF® Natural, PROGEF® Plus, PE 100 in dimensions d 63-225 mm, 2 USB interfaces, monochrome display with icons and 12 languages.

### Supply:

1-phase AC (50/60 Hz) 230 V L/N/PE or 3-phase AC (50/60 Hz) 400 V/230 V L1/L2/L3/N/PE

### Delivery includes:

- Machine base (1 pcs.)
- Heater assembly (1 pcs.)
- Facing tool (1 pcs.)
- Working table, HP (1 pcs.)
- Movable clamping units (1 pcs.)
- Clamping inserts d 63-225 mm (8 pcs. per dimension)
- End caps PE d 63-225 mm (4 pcs. per dimension)
- Transportation lock (1 pcs.)
- Pipe stop (1 pcs.)
- Hexagon key 5 mm (1 pcs.)
- Hexagon key 6 mm (1 pcs.)
- Combination ring /open-jaw wrench 13 mm (1 pcs.)
- Cleaning brush (1 pcs.)
- Connecting cable 400 V - 230 V (1 pcs.)
- Ball for lever (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
63 - 225	<b>790 133 009</b>	453.000	

# **BCF® Plus Plastic Fusion Jointing Machine**



## **BCF® Plus fully equipped machine d 20 - 63 mm**

Fully-equipped machine for bead and crevice free jointing of SYGEF® Standard, SYGEF® Plus, PROGEF® Natural of the dimensions d 20-63 mm with integrated remote welding unit, 2 USB interfaces, monochrome display with icons and 12 languages.

### **Supply:**

1-phase AC (50/60 Hz) 115 / 230 V L/N/PE

### **Delivery includes:**

- Machine housing (1 pcs.) incl. remote welding unit (1 pcs.)
- Transport box (1 pcs.)
- HP working table (1 pcs.)
- Heating stations d 20-63 mm (6 pcs.)
- Clamping units small (2 pcs.) with clamping inserts d 20-63 mm (24 pcs.)
- Facing tool small (1 pcs.) with facing inserts d 20-63 mm (6 pcs.)
- Facing tool support (1 pcs.)
- Hose box (1 pcs.) incl. air hose (1 pcs.)
- Supporting tools small d 20-63 mm (2 pcs.)
- BReT (1 pcs.)
- Hose cutter (1 pcs.)
- Air hose reducer (6-4 mm) (1 pcs.), air hose socket (4-4 mm) (1 pcs.)
- Extension cable (1 pcs.)
- Manual (1 pcs.)

d-d [mm]	Code	kg	
20 - 63	<b>790 121 002</b>	153.000	



## BCF® Plus Bladder

- Only suitable for welding PROGEF® Natural). **Blue bladder head** (except d 75 -110mm)!

d [mm]	Code	kg	Pieces	
20	<b>790 122 091</b>	0.038	1	
25	<b>790 122 092</b>	0.044	1	
32	<b>790 122 093</b>	0.062	1	
40	<b>790 122 094</b>	0.082	1	
50	<b>790 122 095</b>	0.131	1	
63	<b>790 122 096</b>	0.168	1	

# Electrofusion Units and Accessories



## MSA Plus 400 Traceability Electrofusion Unit with USB interfaces



**NEW, environmental friendly manufactured electrofusion unit according EU directive 2002/95/EU (RoHS).**

Professional electrofusion unit for traceability of piping system components from raw material to completed electrofusion joint (to ISO 12176). The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is equipped with compact flash memory card (exchangeable data carrier), barcode reader pen or optional barcode scanner. The unit is robust, light and easy to use. The menu has up to 27 different languages. Inclusive 1 transport case, 1 USB memory stick, 1 pair of angle adapter clips 4.0 mm, operating instructions, configuration card and Software MSA WIN-WELD.

For printer or PC communication the USB cable (799350619) is required.

### Technical Data

Ambient temperature	-10 °C - +45 °C
Mains voltage	180 V - 264 V AC
Mains frequency	45Hz - 65 Hz
Fusion voltage	8 - 42 (48) V AC
Fusion current	max. 80 A
Power	max. 3500 W
Protection	1 / IP 65
Interfaces	USB (type A) for printer communication and to load software updates USB (type B) for PC communication
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	284 x 440 x 195 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LCD graphic, background light, contrast adjustment
Size display (WxH)	132 x 39 mm
Type size	8 mm
Languages	Brasilian, Bulgarian, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Latvian, Lithuanian, Malaysian, Norwegian, Polish, Portuguese, Rumanian, Russian, Slovakian, Slovenian, Spanish, Swedish, Turkish
Warranty	24 months

Type	Code	kg	Description
MSA Plus 400	799 350 580	16.800	barcode reader pen, transport case
MSA Plus 400	799 350 581	16.800	barcode scanner, transport case
MSA Plus 400	799 350 585	16.800	CH power plug with barcode reader pen, transport case



## MSA Plus 350 Record Electrofusion Unit with USB interfaces



**NEW, environmental friendly manufactured electrofusion unit according EU directive 2002/95/EU (RoHS).**

Professional electrofusion unit for recording jointing data of electrofusion components as a basis for electronic joint recording. The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is equipped with barcode reader pen, optional with barcode scanner. The unit is robust, light and easy to use. The menu has up to 27 different languages. Inclusive transport box, 1 USB memory stick, 1 pair of angle adapter clips 4.0 mm, operating instructions, configuration card and Software MSA WIN-WELD.

To read out the fusion protocols the USB cable (799 350 619) or the USB memory stick (799 350 622) 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
Interface	USB (type A) for printer communication and to load software updates USB (type B) for PC communication
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	284 x 440 x 195 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LCD graphic, background light, contrast adjustment
Size display (WxH)	132 x 39 mm
Type size	8 mm
Languages	Brasilian, Bulgarian, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Latvian, Lithuanian, Malaysian, Norwegian, Polish, Portuguese, Rumanian, Russian, Slovakian, Slovenian, Spanish, Swedish, Turkish
Warranty	24 months

Type	Code	kg	Description	
MSA Plus 350	<b>799 350 570</b>	16.800	barcode reader pen, transport case	
MSA Plus 350	<b>799 350 571</b>	16.800	barcode scanner, transport case	
MSA Plus 350	<b>799 350 575</b>	16.800	CH Power plug, with barcode reader, transport case	



## MSA Plus 300 Automatic Electrofusion Unit with USB interfaces



**NEW, environmental friendly manufactured electrofusion unit according EU directive 2002/95/EU (RoHS).**

Automatic electrofusion unit with barcode reader pen, optional with barcode scanner. The MSA units with the unique inverter technology and the active cooling system for trouble-free operation from generator or mains supply. Suitable for jointing in series. The unit is robust, light and easy to use. The menu has up to 27 different languages. Inclusive transport box, 1 pair of angle adapter clips 4.0 mm, operating instructions and configuration card.

To load software updates the USB memory stick (799 350 622) is required.

### Technical Data

Ambient temperature	-10 °C - +45 °C
Mains voltage	180 V - 264 V AC
Mains frequency	45Hz - 65 Hz
Fusion voltage	8 - 42 (48) V AC
Fusion current	max. 80 A
Power	max. 3500 W
Protection	1 / IP 65
Interfaces	USB (type A) to load software updates USB (type B) for PC communication
Mains cable	3 m
Fusion cable	3 m
Dimensions (WxHxD)	284 x 440 x 195 mm
Weight incl. cables	ca. 11,5 kg, light-weight aluminium housing
Display	LCD graphic, background light, contrast adjustment
Size display (WxH)	132 x 39 mm
Type size	8 mm
Languages	Brasilian, Bulgarian, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Italian, Latvian, Lithuanian, Malaysian, Norwegian, Polish, Portuguese, Rumanian, Russian, Slovakian, Slovenian, Spanish, Swedish, Turkish
Warranty	24 months

Type	Code	kg	Description
MSA Plus 300	<b>799 350 560</b>	16.800	barcode reader pen, transport case
MSA Plus 300	<b>799 350 561</b>	16.800	barcode scanner, transport case
MSA Plus 300	<b>799 350 565</b>	16.800	CH Power plug, with barcode reader pen, transport case



## Adapter

- Adapters for electrofusion units with 4 mm connectors.
- Compatible with electrofusion units MSA 210, MSA 250-400 and MSA Plus 250-400.

Type	Code	kg	Description
4,0 mm	<b>799 350 340</b>	0.055	Angle adapter, black
4,7 mm	<b>799 350 341</b>	0.055	Angle adapter, grey
4,0 mm	<b>799 350 461</b>	0.055	Adapter, black
4,7 mm	<b>799 350 462</b>	0.055	Adapter, white

## 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

**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	kg
RS 40	40	<b>790 136 001</b>	2.096
RS 50	50	<b>790 136 002</b>	1.250
RS 63	63	<b>790 136 003</b>	2.038
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

9 300 725



## Peeling Tool PT 1 E

- The rotating Peeling Tool PT 1 E is suitable for preparing pipe ends with diameters d 20 - 90 mm (when installing electrofusion couplers and fittings). The tool ensures a constant peeling quality on the complete peeling surface and is suitable for PE80, PE100 and PEX.
- Scope of delivery: 1 basic tool in a plastic carrying case, without pipe inserts. The case has sufficient space for approximately 6 pipe inserts.

d-d [mm]	Code	kg	Description	
20 - 90	799 150 382	3.400	Basic Tool PT 1 E	

9 300 725



## Pipe Inserts for Peeling Tool PT 1 E

d [mm]	e [mm]	Code	kg	Description	
20	1.9	799 300 739	0.220	Pipe Insert SDR 11	
20	3.0	799 300 741	0.220	Pipe Insert SDR 7	
25	2.3	799 300 740	0.230	Pipe Insert SDR 11	
25	3.0	799 300 742	0.230	Pipe Insert SDR 9	
32	3.0	799 300 743	0.230	Pipe Insert SDR 11	
40	3.7	799 300 744	0.230	Pipe Insert SDR 11	
50	4.6	799 300 745	0.350	Pipe Insert SDR 11	
63	3.8	799 300 725	0.475	Pipe Insert SDR 17	
63	5.8	799 300 746	0.475	Pipe Insert SDR 11	
75	4.5	799 300 727	0.601	Pipe Insert SDR 17	
75	6.9	799 300 747	0.601	Pipe Insert SDR 11	
90	5.4	799 300 748	0.834	Pipe Insert SDR 17	
90	8.2	799 300 749	0.220	Pipe Insert SDR 11	

9 300 750



## Peeling Tool PT 2

- The rotating Peeling Tools PT 2 are suitable for preparing pipe ends (when installing electrofusion couplers and fittings). The tool ensures a constant peeling quality on the complete peeling surface and is suitable for PE80, PE100 and PEX pipes.
- Scope of delivery: 1 tool (size 1, 2 or 3) in a case (size 1 in aluminium, size 2 and 3 in plastic).

d-d [mm]	Code	kg	Description	
90 - 250	799 300 753	5.100	Size 1, peeling length 140 mm	
110 - 400	799 300 755	7.320	Size 2, peeling length 150 mm	
110 - 500	799 300 756	11.000	Size 3, peeling length 175 mm	

9 300 700



## Peeling Tool PT 4

- The easy-to-use peeling tools PT 4 are suitable for preparing pipe ends (when installing electrofusion couplers and fittings). The tools ensure a constant peeling quality on the whole peeled area and are suitable for PE80 and PE100 pipes. There is no tool service arrangement for the PT 4.
- Scope of delivery: 1 tool with exchangeable blade (4 cutting surfaces).

e [mm]	d [mm]	Code	kg	Description	
1.9	20	799 300 704	0.271	Pipe Insert SDR 11	
3.0	20	799 300 705	0.255	Pipe Insert SDR 7	
2.3	25	799 300 706	0.308	Pipe Insert SDR 11	
3.0	25	799 300 707	0.290	Pipe Insert SDR 9	
3.0	32	799 300 708	0.340	Pipe Insert SDR 11	
3.7	40	799 300 709	0.380	Pipe Insert SDR 11	
4.6	50	799 300 710	0.436	Pipe Insert SDR 11	
5.8	63	799 300 711	0.540	Pipe Insert SDR 11	

9 301 475



## Double Clamp

- The user-friendly Double Clamps are suitable for coupler connections. They are quickly and easily put into position and prevent pullout and pipe movements during the fusion time and cooling time.
- Scope of delivery: 1 tool consisting of 1 beam (compact), 2 vee-clamps complete with ratchet and belt.

d-d [mm]	Code	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	

9 301 450



## Quadruple Clamp

- The professional Quadruple Clamps are suitable for coupler connections. They are quickly and easily put into position and ensure a stress-free fusion. They prevent pullout and pipe movements during the fusion and cooling times.
- Recommended for difficult site conditions with large installation-induced stresses.
- Scope of delivery: 1 tool consisting of 1 beam (long), 4 vee-clamps complete with ratchet and belt.

d-d [mm]	Code	kg	
63 - 125	<b>799 301 459</b>	6.900	
110 - 225	<b>799 301 461</b>	19.000	
225 - 500	<b>799 301 463</b>	28.500	

9 301 525



## Twin Clamp

- The easy-to-use Twin Clamp is suitable for coupler connections on straight or coiled pipe. The clamps prevent pullout and pipe movements during the fusion and cooling time.
- Scope of delivery: 1 complete tool.

d [mm]	Code	kg	
20	<b>799 301 536</b>	0.498	
25	<b>799 301 537</b>	0.471	
32	<b>799 301 538</b>	0.756	
40	<b>799 301 539</b>	0.876	
50	<b>799 301 540</b>	1.167	
63	<b>799 301 541</b>	1.438	

9 301 575



## Multi Clamp

- This tool is quick and easy to use and is suitable for straight forward connections to straight lengths of pipe or saddle branch outlets with electrofusion couplers.
- Scope of delivery: 1 tool without accessories.

d-d [mm]	Code	kg	
20 - 63	799 301 575	1.409	

9 301 575



## Inserts for Multi Clamp

- The inserts are easily and quickly exchanged. A set consists of 4 inserts, each insert with 2 different dimensions.

d-d [mm]	Code	kg	Description	
25 - 20	799 150 385	0.806	Inserts, Sets	
32 - 20	799 150 386	0.520	Inserts, Sets	
32 - 25	799 150 387	0.520	Inserts, Sets	
40 - 32	799 150 388	0.520	Inserts, Sets	
50 - 40	799 150 389	0.520	Inserts, Sets	
63 - 32	799 150 390	0.520	Inserts, Sets	
63 - 40	799 150 391	0.520	Inserts, Sets	
63 - 50	799 150 392	0.520	Inserts, Sets	

9 370 000



## Clamp for coiled pipe

- These clamps are easily mounted on coiled pipes. They hold the pipes in position during the fusion time and cooling phase.
- Scope of delivery: 1 tool with clamp and belt.

d-d [mm]	Code	kg	
25 - 63	799 370 007	4.000	
63 - 125	799 370 011	10.000	



## Clamping device Topload 315

- This clamp and mounting tool is used to top-load Saddles onto pipes of dimensions d 280 - 400 mm.
- Scope of delivery: 1 basis mounting clamp, 1 bracket, 2 clamping screws, 2 ratchet scraps, 1 transport-box

d-d [mm]	Code	kg	
280 - 400	799 350 475	25.000	

9 150 090



## Spring Clamp for ELGEF® 24 V Reinforcing Saddles

- The Spring Clamp is used to install ELGEF® 24 V reinforcing saddles d 40 - 225 mm. The tool ensures a constant jointing pressure during the entire fusion cycle.

d-d [mm]	Code	kg	
40 - 225	799 150 090	1.289	



## Assembly and Tapping Key for ELGEF® Plus Saddles

- Combination tool for tapping and tightening of fixation screws.

Type	Code	kg	Description
8/10/17	799 198 047	0.803	For all saddles



## Tapping Key for ELGEF® Plus Saddles

- With adjustable tapping depth.

Type	Code	kg	Description
10	799 198 080	0.120	for Monobloc d 40 mm and d 50 mm
17	799 198 079	0.555	for Monobloc d 63 mm and all Duobloc saddles
12.7	799 198 091	0.600	for socket with cutter



## Hexagon Key for ELGEF® Plus Saddles and Branch Fittings

- For tightening fixation screws.

Type	Code	kg	Description
SW8	799 150 378	0.152	For all saddles and branch fittings



## Tapping Adapter for ELGEF® Plus Saddles

- The Adapter is used for gas-free tapping under pressure. Type S 54 for tapping saddles with rotatable outlet d 20 - 40 mm (Tapping Tee d 32 mm). Type S 67 for tapping saddles with rotatable outlet d 50 - 63 mm (Tapping Tee d 63 mm).

Type	Code	kg	Description
S 54	799 100 061	0.813	for Tapping Tee d 32 mm
S 67	799 100 062	1.011	for Tapping Tee d 63 mm



## Pressure Test Cap for ELGEF® Plus Tapping Saddles

- "The cap has a Rp 3/8"" connection thread and is made from galvanised steel."
- Overview of Tapping Adapter types and Pressure Test Cap**
- Typ Bezeichnung description
- M For Monoblock d 40 and 50 mm (outlets d 20 - 32 mm)
- S 54 For Monoblock d 63 (outlets d 20 - 32 mm) and all saddles with rotatable outlet (outlets d 20 - 40 mm) i.e. Tapping Tee d 32 mm.
- S 67 For all Saddles with rotatable outlet (outlets d 50 and 63 mm) i.e. Tapping Tee d 63 mm.

Type	Code	kg	Description
M	799 199 282	0.119	for Monoblock d 40 mm and d 50 mm
S 54	799 199 283	0.283	for Monoblock d 63 mm and Tapping Tee d 32 mm
S 67	799 199 286	0.461	for Tapping Tee d 63 mm



## Cutter for PE Pipes

- This cutter is suitable for PE pipes and can be used on pipes of up to d 225 mm with a wall thickness of up to 21 mm.

d [mm]	Code	kg	Description	
30	<b>799 198 013</b>	0.131	accessories Basic Tool Box	
39	<b>799 198 012</b>	0.215	accessories Basic Tool Box	
50	<b>799 198 057</b>	0.278	accessories Basic Tool Box	



## PE Repair Plug

- PE Repair Plugs are suitable for use with ELGEF® 24 V PE Reinforcement Saddles 53 127 000.

d [mm]	Code	kg	
30	<b>799 199 088</b>	0.012	
39	<b>799 199 089</b>	0.019	



## Hexagon Key for PVC Saddles

- The Hexagon Key is suitable for tapping water and gas mains under pressure.
- Scope of delivery: 1 hexagon key, protective cover, without rotating pin.

d-d [mm]	Code	kg	s [mm]	G [inch]	
16 - 25	<b>799 150 007</b>	0.345	19	30	
32 - 40	<b>799 150 008</b>	0.496	27	38	
50 - 63	<b>799 150 009</b>	0.690	27	47	

## Rotating pin for Hexagon Key

description	Code	kg	
10x350 mm	<b>799 150 011</b>	0.220	

# Accessories and Tools for Welding Machines



## Heating Spigots and Bushes

- Aluminium, PTFE coated
- Type B
- Always delivered in pairs (also usable for SG 110, not for SG 160)

d [mm]	Code	kg	kg/m	
16	<b>799 300 155</b>	0.070	0.070	
25	<b>799 300 157</b>	0.110	0.110	
32	<b>799 300 158</b>	0.140	0.140	
40	<b>799 300 159</b>	0.230	0.230	
50	<b>799 300 160</b>	0.335	0.335	
63	<b>799 300 161</b>	0.565	0.565	
75	<b>799 300 162</b>	0.965	0.965	
90	<b>799 300 163</b>	1.440	1.440	
110	<b>799 300 164</b>	2.210	2.210	



## Manual Pipe Peeling Tool for Socket Fusion

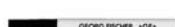
d [mm]	Code	kg	kg/m	
20	<b>799 300 260</b>	0.067	0.067	
25	<b>799 300 270</b>	0.081	0.081	
32	<b>799 300 280</b>	0.102	0.102	
40	<b>799 300 290</b>	0.244	0.244	
50	<b>799 300 300</b>	0.294	0.294	
63	<b>799 300 310</b>	0.505	0.505	
75	<b>799 300 320</b>	0.780	0.780	
90	<b>799 300 330</b>	0.987	0.987	
110	<b>799 300 340</b>	1.360	1.360	



## KS Tangit Cleaner

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

Code	kg	kg/m	
<b>799 298 023</b>	0.890	0.890	



## Marker

Type	Code	kg	kg/m	
silver	<b>799 350 364</b>	0.012	0.012	

# 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

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 importlicences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

## 8 Terms of Payment

- 8.1 The Purchaser shall make payment in the manner agreed by the parties without any deductions such as discounts, costs, taxes or dues.
- 8.2 The Purchaser may only withhold or off-set payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

- 9.1 The Products shall remain the property of Georg Fischer until the Purchaser shall have settled all claims, present and future, which Georg Fischer may have against him.
- 9.2 Should the Purchaser resell Products to which title is reserved, in the ordinary course of business, he shall hereby be deemed to have tacitly assigned to Georg Fischer the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer shall have been settled. Until revoked by Georg Fischer, this assignment shall not preclude Purchaser's right to collect the assigned receivables.
- 9.3 To the extent the value of the Products to which title is reserved together with collateral securities exceeds Georg Fischer's claims against the Purchaser by more than 20%, Georg Fischer shall re-assign the above proceeds to Purchaser at his request.

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
  - a) If Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
  - b) If Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially impractical 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

If the Products are provided with additional packing over and above the standard packing, such packing shall be charged additionally.

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms ICC, latest version), even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer.
- 12.2 If delivery is delayed for reasons beyond Georg Fischer's control, the risk shall pass to the Purchaser when he is notified that the Products are ready for despatch.

## 13 Carriage and Insurance

- 13.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 13.2 The Purchaser shall be responsible for transport insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 13.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer in due time. Otherwise carriage shall be arranged by Georg Fischer at their discretion, but without responsibility, by the quickest and cheapest method possible.  
In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 13.4 In the event of damage or loss of the Products during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier. Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the Products.

## 14 Inspection, Notification of Defects and Damages

- 14.1 The Products will be subject to normal inspection by Georg Fischer during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 14.2 It shall be a condition of Georg Fischer's obligation under the warranties stated hereinafter that Georg Fischer be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the Products, notice of other defects immediately latest within 7 working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer 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 workmanship 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

- All cases of breach of contract and the relevant consequences as well as all rights and claims on the part of the customer, irrespective on 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 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

- Should any term or clause of these General Conditions in whole or in part be found to be unenforceable or void, all other provisions shall remain in full force and effect and the unenforceable or void provision shall be replaced by a valid provision, which comes closest to the original intention of the unenforceable or invalid provision.

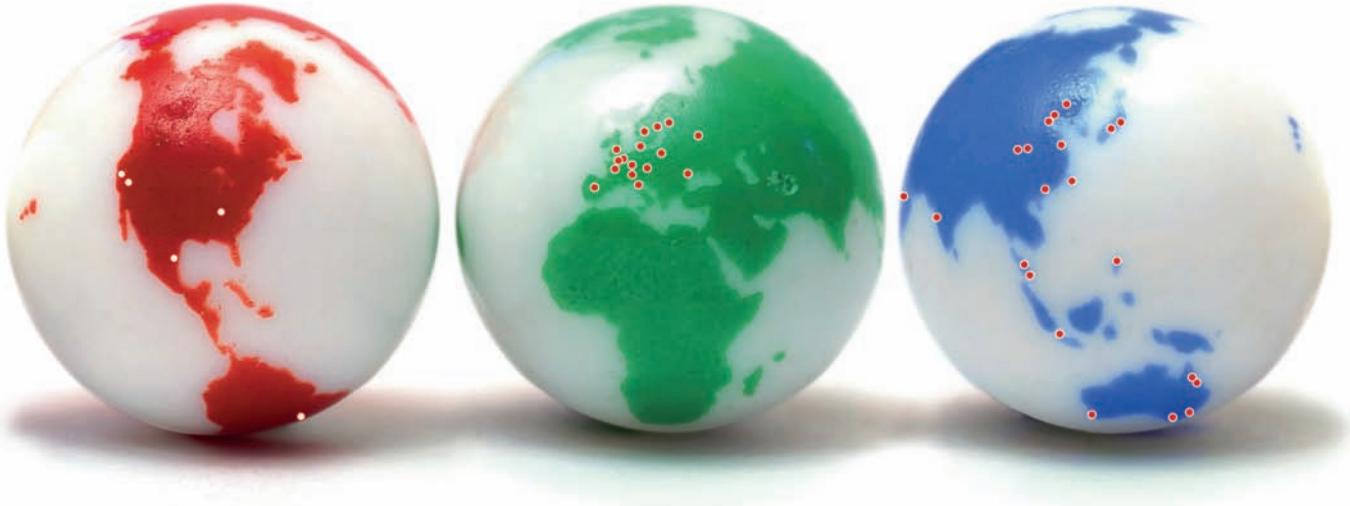
## 18 Place of Performance and Jurisdiction

- 18.1 Place of performance for the Products shall be the Georg Fischer works from which the Products are despatched.
- 18.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts of Schaffhausen, Switzerland.  
Georg Fischer however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 18.3 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.

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The technical data is not binding. They neither constitute expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. They are subject to modification. Our General Terms of Sale apply.

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