

**Product Range**

# **Georg Fischer Wavin**

**PE Fittings, Machines & Tools**





# Table of contents

<b>Introduction</b>		<b>Page</b>
<b>General information</b>		4
<b>Approvals</b>		5
<b>Monoline System specification</b>		6
<b>PE utility range – Monoline system</b>		<b>Page</b>
<b>Monoline electrofusion fittings</b>	Couplers	8
	Elbows	12
	Tees	14
	Reducers	16
	End caps	17
	Transition fittings	18
<b>Monoline electrofusion saddles and valves</b>	Electrofusion saddles	22
	Tapping saddles	23
	Various saddles	27
	Pressure Tapping valves	30
	Stop-Off valves	33
	Tools & extension spindles	34
<b>Monoline branch saddles</b>	Branch saddles	39
	Branch saddles toplod	40
	Accessories & tools	43
<b>Monoline spigot fittings</b>	Elbows	46
	Bends	50
	Tees	57
	Reducers	63
	End caps	66
<b>Monoline flanged connections</b>	Flange adaptors	69
	Backing flanges	73
	Gaskets	77
<b>Machines &amp; tools</b>	Electrofusion units and accessories	80
	Tools for preparing pipe surfaces	84
	Tapping tools	89
	Clamps and installation aids	92
	Squeeze-off and rerounding tools	97
	Plastic pipe cutters and accessories	100
<b>Soil &amp; waste</b>	Waviduo Couplers	105
	Electrofusion unit and accessories	106
<b>General information</b>		<b>Page</b>
<b>Code index</b>		108
<b>General conditions</b>		116

# General information

## Measures, units and shortcuts

d, d1, d2	Diameter
DN	Nominal diameter
L, L1, L2	Length
H, H1, H2	Height
e, e1, e2	Wall thickness
kg	Weight
SC	Size of bolts
AL	Number of bolt holes
S	Pipe series
SDR	Standard dimension ratio

### Working pressure

The pressure rating of Georg Fischer Wavin PE-Fittings refers to the calculated values of EN 12201 and EN 1555 considering the total security value. National Regulations and standards have to be observed.

### Specification

Georg Fischer Wavin fittings meet the ISO-standards, CEN-standards (respectively draft standards) as well as other national standards.

### Approval

The Georg Fischer Wavin products are subjected to extensive internal and external tests and are approved by all major institutes and approval authorities (for example: DVGW, SVGW, KIWA, IIP, engie, Gas Natural, etc.).

### General conditions of supply

Please find the general conditions of supply on the last page.

### Quality management / environmental management

Quality management system is well established at Georg Fischer Wavin and is continuously improved to satisfy our customers. Georg Fischer Piping Systems is certified according to ISO 9001 as well as ISO 14001 (environmental management).

### Technical documentation

For further technical information we offer you the Georg Fischer Wavin technical manual, the technical dossier and the installation instructions of the products.

### Service, training and consultation

Georg Fischer Wavin offers you the possibility to do trainings and extend your knowledge in the piping systems field. Please contact your sales company for further information and registrations.

# Approvals

Georg Fischer Wavin has always been committed to providing the best quality in products and services. We know that, in more than 100 countries, our solutions are used in vital applications that allow for no failures or unplanned downtimes. Our experts work every day to make sure that you receive the best quality possible. You can trust the products from Georg Fischer Wavin – today and for years to come.

This is expressed in the way we work: quality, safety, and responsibility are implemented in our organization to serve you as well as possible. Georg Fischer Wavin fulfils the ISO 9001, ISO 14001, and OHSAS 18001 standards for quality, environmental, and work safety management. After all, governance and process excellence are essential for quality.

Our products are designed to be safe and easy to install, with lifespans as long as the applications themselves. To ensure this, we subject our products to extensive internal and external tests and reviews. Their outstanding quality is confirmed by the numerous certifications and approvals they have received. These include global and national standards from highly respected organizations and institutions, but also specific customer certifications, as requested.

You will find a selection of product approvals below on this page. Our experts are happy to provide you the certificates you need for your applications and guide you through the applicable systems and standards, as needed.



## Monoline

# System specification

### Standards:









	PE100
<b>Material</b>	
Color	RAL 9005
Density	~ 0.95 g/cm <sup>3</sup> (EN ISO 1183 / ASTM D 792)
Thermal expansion coefficient	0.15–0.20 mm/m K (DIN 53752)
Thermal conductivity at 23 °C	0.38 W/m K (EN 12664)
Thermal expansion	0.16–0.18 mm/m K
Yield stress at 23 °C	25 N/mm <sup>2</sup> (EN ISO 527)
Tensile E-modul at 23 °C	900 N/mm <sup>2</sup> (EN ISO 527)
Charpy notched impact strength at 23 °C	83 kJ/m <sup>2</sup> (EN ISO 179)
Charpy notched impact strength at -40 °C	13 kJ/m <sup>2</sup> (EN ISO 179)
Limiting Oxygen Index (LOI)	17.4 % (ISO 4589)
<b>Dimensions</b>	d20-d2000 in accordance to EN 1555-3 and EN 12201-1
<b>Surface condition</b>	in accordance to EN 1555-3 and EN 12201-1
<b>Material and product approvals</b>	<ul style="list-style-type: none"> <li>- ACS (Attestation de Conformité Sanitaire)</li> <li>- BSI (BSI Assurance UK Limited)</li> <li>- NF (CERTIgaz)</li> <li>- DVGW (Deutscher Verein des Gas- und Wasserfaches)</li> <li>- FM Approvals</li> <li>- Global Mark</li> <li>- IIP (Istituto Italiano dei Plastici)</li> <li>- INSTA-CERT (Dancert S/A)</li> <li>- KIWA (Keuringsinstituut voor Waterleidingsartikelen)</li> <li>- KTW / W270 (Kunststoff-Trinkwasser-Empfehlungen)</li> <li>- SVGW (Schweizerischer Verein des Gas- und Wasserfaches)</li> </ul>
<b>Packaging</b>	Fittings and valves are bagged
<b>Marking and labeling</b>	<p>All components are embossed with a permanent identification during the production process to ensure full traceability:</p> <ul style="list-style-type: none"> <li>- Brand name</li> <li>- Material</li> <li>- Dimensions</li> <li>- Pressure rating</li> <li>- Lot No.</li> <li>- Product description</li> <li>- Article number</li> <li>- Standard and approvals</li> </ul>

### Approvals / Acceptance:

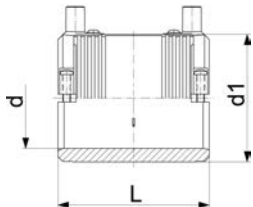


# Monoline electrofusion fittings

Electrofusion fittings		Page
	Couplers	8
	Elbows	12
	Tees	14
	Reducers	16
	End caps	17
	Transition fittings	18



# Couplers



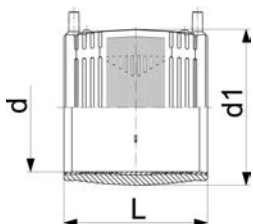
## Coupler

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

### Note:

Available as from June 2019

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
20	701 485 111	0.053	31	70	9-11
25	701 485 112	0.050	36	70	9-11
32	701 485 113	0.071	44	72	9-11
40	701 485 114	0.095	54	80	9-11
50	701 485 115	0.131	66	88	9-11
63	701 485 116	0.194	81	96	9-17.6



## Coupler

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

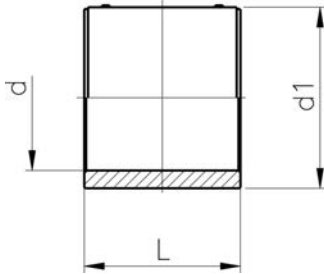
	d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
*	75	701 485 106	0.282	96	110	11 - 17/17.6
*	90	701 485 110	0.406	113	125	11 - 17/17.6
*	110	701 485 130	0.670	138	145	11 - 17/17.6
*	125	701 485 715	0.758	154	158	11 - 17/17.6
*	140	701 485 716	0.962	172	168	11 - 17/17.6
*	160	701 485 717	1.367	195	180	11 - 17/17.6
	180	701 485 718	1.811	219	194	11 - 17/17.6
	200	701 485 719	2.333	244	208	11 - 17/17.6
	225	701 485 720	3.334	273	224	11 - 17/17.6
	250	701 485 725	4.210	304	244	11 - 17/17.6
	280	701 485 726	5.563	340	252	11 - 17/17.6
	315	701 485 729	7.955	382	268	11 - 17/17.6





### Coupler

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



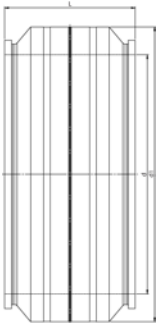
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
355	<b>701 485 080</b>	13.098	438	291	9 - 17/17.6
400	<b>701 485 081</b>	18.320	493	295	9 - 17/17.6
450	<b>701 485 082</b>	24.700	554	327	9 - 17/17.6
500	<b>701 485 083</b>	33.700	616	358	9 - 17/17.6
560	<b>701 485 084</b>	46.200	689	396	9 - 17/17.6
630	<b>701 485 085</b>	65.300	775	440	9 - 17/17.6
710	<b>701 485 086</b>	87.400	874	463	9 - 17/17.6
800	<b>701 485 087</b>	114.500	982	484	9 - 17/17.6



### Coupler

- PE 100 SDR 11 (ISO S5)
- 16 bar Water
- Only for water applications
- 4 mm pin connectors

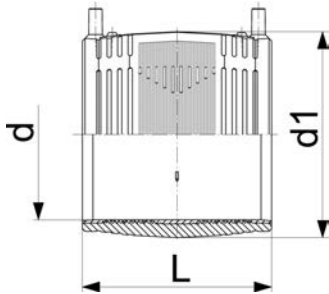
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
900	<b>753 911 652</b>	137.930	1110	550	9-17.6





### Coupler

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- \* Removable centre stops

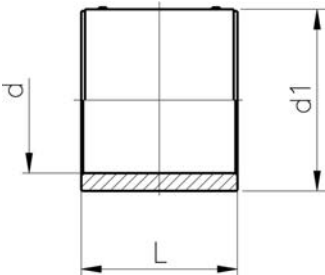


	d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
*	160	<b>701 485 735</b>	1.009	186	180	17 - 26
	180	<b>701 485 736</b>	1.450	213	194	17 - 26
	200	<b>701 485 737</b>	1.706	233	208	17 - 26
	225	<b>701 485 738</b>	2.557	261	224	17 - 26
	250	<b>701 485 739</b>	4.614	304	244	17 - 26
	280	<b>701 485 740</b>	5.675	340	252	17 - 26
	315	<b>701 485 741</b>	8.000	382	268	17 - 26



### Coupler

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- 4 mm pin connectors
- Limited path fusion indicators
- With active reinforcement



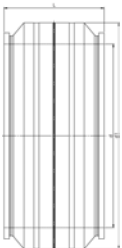
	d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
	355	<b>701 471 752</b>	9.522	416	291	17 - 33
	400	<b>701 471 753</b>	17.000	467	295	17 - 33
	450	<b>701 471 754</b>	16.000	526	327	17 - 33
	500	<b>701 471 755</b>	22.000	584	358	17 - 33
	560	<b>701 471 756</b>	29.500	647	396	17 - 33
	630	<b>701 471 757</b>	35.000	727	440	17 - 33
	710	<b>701 471 758</b>	55.600	820	463	17 - 33
	800	<b>701 471 759</b>	73.000	922	484	17 - 33



### Coupler

- PE 100 SDR 17 (ISO S8)
- 10 bar water
- Only for water applications
- 4 mm pin connectors

	d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
	900	<b>753 911 852</b>	93.150	1030	550	9-26
	1000	<b>753 911 853</b>	125.650	1143	600	9-26
	1200	<b>753 911 854</b>	196.450	1370	650	9-26

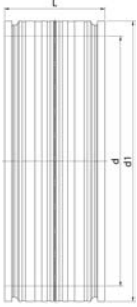


## Coupler

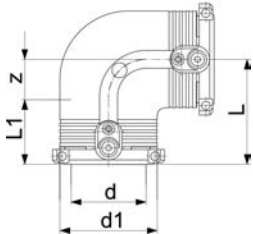


- PE 100 SDR 26 (ISO S12.5)
- 6 bar water
- Only for water applications
- 4 mm pin connectors

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
710	<b>753 911 950</b>	31.920	797	360	9-26
800	<b>753 911 951</b>	42.800	897	380	9-26
900	<b>753 911 952</b>	57.580	1009	400	9-26
1000	<b>753 911 953</b>	79.270	1121	440	9-26
1200	<b>753 911 954</b>	125.700	1345	480	9-26



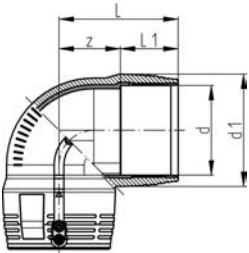
# Elbows



## 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

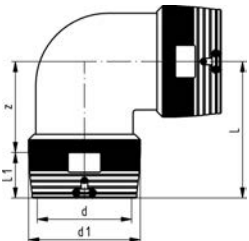
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
20	701 485 811	0.087	35	54	34	20	11
25	701 485 812	0.074	35	54	34	20	11
32	701 485 813	0.094	44	53	36	17	11
40	701 485 814	0.128	54	62	39	23	11
50	701 485 815	0.196	66	71	43	28	11
63	701 485 816	0.312	81	81	48	32	11



## Elbow 90°

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

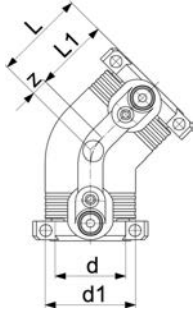
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
75	701 485 603	0.413	97	94	54	40	11
90	701 485 617	0.827	115	122	62	60	11
110	701 485 618	1.265	140	147	72	76	11-17/17.6
125	701 485 619	1.742	161	155	78	77	11-17/17.6
160	701 485 790	3.845	208	191	88	103	11-17/17.6
180	701 485 791	5.342	234	219	96	114	11-17/17.6



## 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

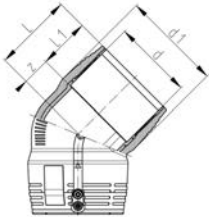
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
200	701 485 854	7.987	250	298	104	194	11-17/17.6
225	701 485 858	13.400	280	318	112	206	11-17/17.6
250	701 485 859	15.715	310	347	123	224	11-17/17.6



**Elbow 45°**  
**With integral pipe fixation**

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

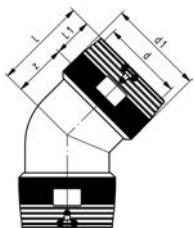
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
32	<b>701 485 803</b>	0.074	44	44	36	8	11
40	<b>701 485 804</b>	0.113	54	50	39	11	11
50	<b>701 485 805</b>	0.158	66	56	43	13	11
63	<b>701 485 806</b>	0.258	81	63	48	15	11



**Elbow 45°**

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

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
75	<b>701 485 604</b>	0.346	97	71	54	17	11
90	<b>701 485 620</b>	0.557	115	91	62	29	11
110	<b>701 485 621</b>	0.973	140	112	72	40	11-17/17.6
125	<b>701 485 622</b>	1.466	160	119	78	41	11-17/17.6
160	<b>701 485 795</b>	3.005	208	134	89	42	11-17/17.6
180	<b>701 485 796</b>	4.047	234	142	96	47	11-17/17.6

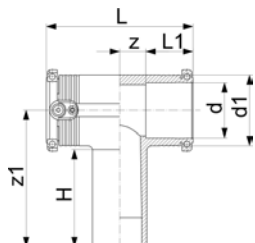


**Elbow 45°**

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

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
200	<b>701 485 849</b>	7.578	250	232	104	128	11-17/17.6
225	<b>701 485 851</b>	9.540	280	247	112	135	11-17/17.6
250	<b>701 485 853</b>	12.740	310	275	123	152	11-17/17.6

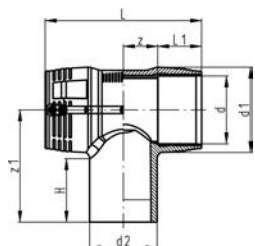
# Tees



## Tee 90° equal With integral pipe fixation

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

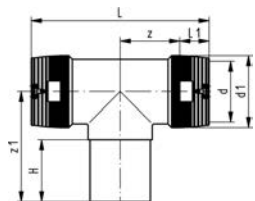
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
20	701 485 821	0.090	35	90	34	11	92	67	11
25	701 485 822	0.075	35	90	34	11	92	70	11
32	701 485 823	0.109	44	102	36	15	100	74	11
40	701 485 824	0.175	54	120	39	21	114	82	11
50	701 485 825	0.262	66	135	43	24	126	90	11
63	701 485 826	0.420	81	152	48	28	150	102	11



## Tee 90° equal

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

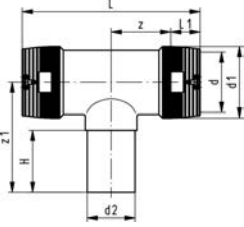
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
75	701 485 601	0.566	97	178	54	35	143	87	11
90	701 485 623	0.887	115	205	62	41	161	94	11
110	701 485 624	1.608	140	255	72	56	184	104	11-17/17.6
125	701 485 600	2.251	151	276	78	60	207	113	11-17/17.6
160	701 485 636	5.000	210	330	89	76	220	105	11-17/17.6
180	701 485 646	6.050	233	350	96	79	247	120	11-17/17.6



## Tee 90° equal

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

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
200	701 485 777	10.420	250	590	104	191	250	117	11-17/17.6
225	701 485 778	15.145	280	636	112	206	270	122	11-17/17.6
250	701 485 779	19.245	310	685	123	220	288	127	11-17/17.6

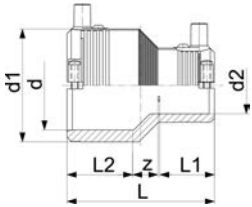


### Tee 90° reduced

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

d (mm)	d2 (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	H (mm)	SDR pipe
160	63	<b>701 485 771</b>	4.940	200	493	90	127	176	65	11-17/17.6
160	90	<b>701 485 772</b>	5.040	200	492	90	158	188	79	11-17/17.6
160	110	<b>701 485 773</b>	5.160	200	491	90	158	195	85	11-17/17.6
200	90	<b>701 485 630</b>	11.260	250	595	104	194	215	81	11-17/17.6
200	110	<b>701 485 631</b>	11.260	250	600	104	194	218	84	11-17/17.6
200	160	<b>701 485 633</b>	11.260	250	595	104	194	236	101	11-17/17.6
225	90	<b>701 485 774</b>	12.700	280	666	112	217	226	80	11-17/17.6
225	110	<b>701 485 775</b>	12.750	280	670	112	217	235	85	11-17/17.6
225	160	<b>701 485 776</b>	12.951	280	667	112	217	255	105	11-17/17.6
250	110	<b>701 485 639</b>	12.750	310	709	123	220	245	85	11-17/17.6
250	160	<b>701 485 640</b>	12.750	310	711	123	220	264	101	11-17/17.6

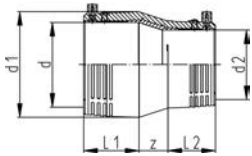
# Reducers



## Reducer With integral pipe fixation

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

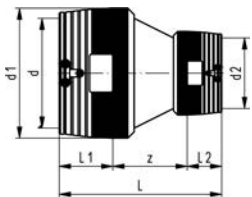
d (mm)	d2 (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	SDR pipe
25	20	701 485 831	0.054	35	74	34	34	6	11
32	20	701 485 832	0.066	44	79	33	36	10	11
32	25	701 485 833	0.060	44	79	33	36	10	11
40	20	701 485 834	0.080	54	88	33	40	15	11
40	25	701 485 836	0.086	54	88	33	40	15	11
40	32	701 485 835	0.090	54	88	33	39	13	11
50	32	701 485 837	0.113	66	96	35	43	18	11
50	40	701 485 838	0.117	66	96	39	43	14	11
63	32	701 485 839	0.164	81	106	35	48	23	11
63	40	701 485 840	0.166	81	106	39	48	19	11
63	50	701 485 841	0.183	81	106	43	48	15	11



## 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	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	SDR pipe
90	63	701 485 627	0.370	113	146	63	47	36	11
110	63	701 485 616	0.644	140	184	71	58	55	11
110	90	701 485 628	0.657	138	173	73	63	38	11-17/17.6
125	90	701 485 602	0.878	152	180	79	61	40	11-17/17.6
160	90	701 485 656	1.600	202	227	90	72	65	11-17/17.6
160	110	701 485 659	1.783	202	226	90	71	65	11-17/17.6
180	125	701 485 661	2.340	225	254	96	78	80	11-17/17.6



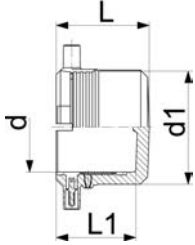
## Reducer

- 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	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	SDR pipe
200	160	701 485 842	5.049	250	365	104	90	171	11-17/17.6
225	160	701 485 843	5.997	280	385	112	90	183	11-17/17.6
225	200	701 485 750	8.200	280	390	112	104	173	11-17/17.6
250	160	701 485 844	7.455	310	400	123	90	187	11-17/17.6
250	200	701 485 845	8.686	310	417	123	104	200	11-17/17.6
250	225	701 485 799	8.450	310	430	122	112	195	11-17/17.6



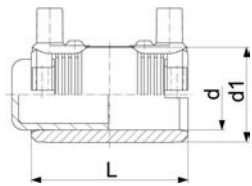
# End caps



## 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

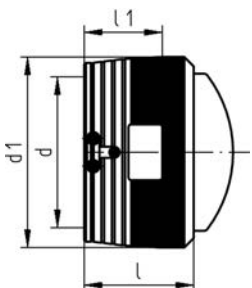
d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	SDR pipe
20	<b>701 485 950</b>	0.037	35	52	44	11
25	<b>701 485 951</b>	0.042	35	52	44	11
32	<b>701 485 952</b>	0.054	44	52	44	11
40	<b>701 485 953</b>	0.072	54	56	47	11
50	<b>701 485 954</b>	0.099	66	60	49	11
63	<b>701 485 955</b>	0.150	81	66	54	11



## 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 Monoline Coupler

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
75	<b>701 485 936</b>	0.377	96	110	11
90	<b>701 485 937</b>	0.563	113	125	11-17/17.6
110	<b>701 485 938</b>	1.084	133	145	11-17/17.6
125	<b>701 485 939</b>	1.377	155	158	11-17/17.6
140	<b>753 961 716</b>	2.250	175	170	11-17/17.6
160	<b>753 961 717</b>	2.382	197	180	11-17/17.6
180	<b>701 485 942</b>	3.181	220	194	11-17/17.6

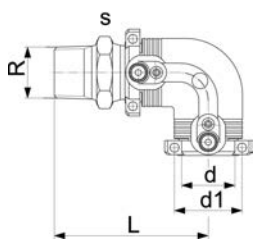


## End cap

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

d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	L1 (mm)	SDR pipe
160	<b>701 485 943</b>	2.000	200	143	90	11-17/17.6
200	<b>701 485 944</b>	3.040	250	162	104	11-17/17.6
225	<b>701 485 948</b>	4.500	280	170	112	11-17/17.6
250	<b>701 485 949</b>	5.930	310	185	123	11-17/17.6

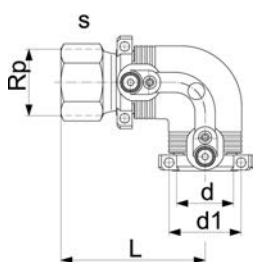
# Transition fittings



## Transition elbow 90° PE/brass (CW617N) Male thread

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

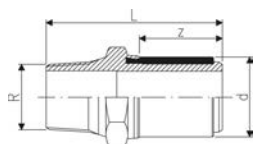
d (mm)	R (inch)	Code	Weight (kg)	d1 (mm)	L (mm)	s	SDR pipe
20	½	701 485 911	0.300	31	96	30	11
25	¾	701 485 912	0.320	36	97	35	11
32	1	701 485 913	0.364	44	98	40	11
32	1 ½	701 485 922	0.552	44	100	60	11
40	1	701 485 923	0.512	54	107	50	11
40	1 ¼	701 485 914	0.570	54	109	50	11
40	1 ½	701 485 924	0.632	54	109	60	11
50	1	701 485 925	0.694	66	116	60	11
50	1 ¼	701 485 926	0.761	66	118	60	11
50	1 ½	701 485 915	0.722	66	118	60	11
63	1 ¼	701 485 927	1.037	81	128	70	11
63	1 ½	701 485 928	1.033	81	128	70	11
63	2	701 485 916	1.101	81	132	70	11



## Transition elbow 90° PE/brass (CW617N) Female thread

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

d	Rp	Code	Weight	d1	L	s	SDR pipe
(mm)	(inch)		(kg)	(mm)	(mm)	(mm)	
32	1	701 485 917	0.350	44	89	40	11
40	1 ¼	701 485 918	0.540	54	100	50	11
50	1 ½	701 485 919	0.790	66	109	60	11
63	1	701 485 945	1.406	81	123	70	11
63	1 ¼	701 485 946	1.362	81	123	70	11
63	1 ½	701 485 947	1.285	81	123	70	11
63	2	701 485 920	1.176	81	123	70	11

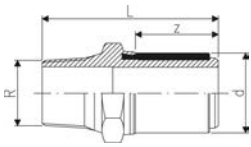


## Transition adaptor PE/brass (CW617N) Male thread

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

d	R	Code	Weight	L	z	SDR pipe
(mm)	(inch)		(kg)	(mm)	(mm)	
20	½	701 485 860	0.127	75	33	11
25	¾	701 485 861	0.182	76	33	11
32	1	701 485 862	0.256	80	35	11
32	1 ¼	701 485 880	0.375	82	35	11
32	1 ½	701 485 881	0.370	82	35	11

table continued on the next page

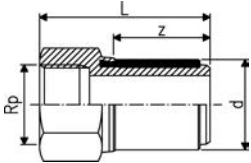


d (mm)	R (inch)	Code	Weight (kg)	L (mm)	z (mm)	SDR pipe
40	1	<b>701 485 882</b>	0.358	84	39	11
40	1 ¼	<b>701 485 863</b>	0.410	86	39	11
40	1 ½	<b>701 485 883</b>	0.480	86	39	11
50	1	<b>701 485 885</b>	0.463	88	43	11
50	1 ¼	<b>701 485 884</b>	0.539	90	43	11
50	1 ½	<b>701 485 864</b>	0.508	90	43	11
63	1 ¼	<b>701 485 886</b>	0.702	94	47	11
63	2	<b>701 485 865</b>	0.776	98	47	11



### Transition adaptor PE/brass (CW617N) Female thread

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

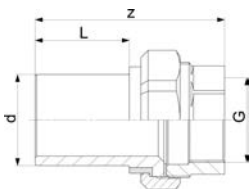


d (mm)	Rp (inch)	Code	Weight (kg)	L (mm)	z (mm)	SDR pipe
32	1	<b>701 485 866</b>	0.244	71	35	11
40	1 ¼	<b>701 485 867</b>	0.387	77	39	11
50	1 ½	<b>701 485 868</b>	0.593	81	43	11
63	1	<b>701 485 972</b>	1.071	89	47	11
63	1 ¼	<b>701 485 973</b>	1.017	89	47	11
63	1 ½	<b>701 485 974</b>	0.938	89	47	11
63	2	<b>701 485 869</b>	0.842	89	47	11



### Union adaptor

- PE 100 SDR 11 (ISO S5)
- With female thread and PE-union end
- The Code Nr. includes the entire union (galvanised)



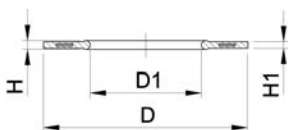
d (mm)	Rp (inch)	Code	Weight (kg)	z (mm)	L (mm)	SW1 (mm)	G (inch)
20	¾	<b>701 485 560</b>	0.152	94	52	27	1
25	¾	<b>701 485 561</b>	0.252	100	52	32	1 1/4
32	1	<b>701 485 562</b>	0.333	108	54	34	1 1/2
40	1 ¼	<b>701 485 563</b>	0.563	114	57	43	2
50	1 ½	<b>701 485 564</b>	0.765	124	65	50	2 1/4
63	2	<b>701 485 565</b>	1.054	134	65	61	2 3/4



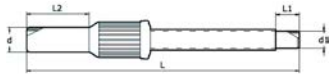
### Flat gasket

#### Model:

- For union adaptors



d (mm)	Code	Weight (kg)	D (mm)	D1 (mm)	H (mm)
20	<b>701 479 360</b>	0.010	30	20	2
25	<b>701 479 361</b>	0.001	39	25	2
32	<b>701 479 362</b>	0.003	44	32	2
40	<b>701 479 363</b>	0.003	56	40	2
50	<b>701 479 364</b>	0.005	62	46	2
63	<b>701 479 365</b>	0.003	78	60	2









### Transition fittings PE/steel

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Electrofusion weldable
- PE coated for corrosion resistance
- \* Steel pipe galvanized

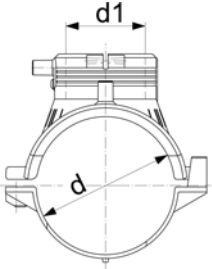
	d (mm)	d1 (inch)	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)
*	20	½	<b>775 641 502</b>	0.450	425	15	80
	25	¾	<b>775 641 507</b>	0.658	463	35	90
	32	1	<b>775 641 510</b>	0.988	460	35	96
	40	1 ¼	<b>775 641 514</b>	1.208	470	35	100
	50	1 ½	<b>775 641 518</b>	1.355	480	35	110
	63	2	<b>775 641 524</b>	2.011	480	35	110
	75	2 ½	<b>775 641 632</b>	2.983	540	35	127
	90	3	<b>775 641 636</b>	3.762	580	45	141
	110	3	<b>775 641 640</b>	4.381	580	45	145
	110	4	<b>775 641 641</b>	6.633	585	45	145
	125	4	<b>775 641 645</b>	6.833	585	45	148
	160	6	<b>775 641 655</b>	12.406	610	45	158
	180	6	<b>775 641 659</b>	11.935	610	45	168
	200	8	<b>775 642 664</b>	19.647	630	45	155
	225	8	<b>775 642 669</b>	20.154	607	45	145
	250	8	<b>775 642 665</b>	21.354	630	45	200
	250	10	<b>775 642 666</b>	30.000	640	45	140
	280	10	<b>775 642 673</b>	31.000	640	45	160
	315	12	<b>775 642 672</b>	35.000	725	45	220
	355	12	<b>775 642 675</b>	49.000	735	45	260
	400	16	<b>775 642 678</b>	94.000	770	45	190

# Monoline electrofusion saddles and valves

Electrofusion saddles and valves		Page
	Electrofusion saddles	22
	Tapping saddles	23
	Various saddles	27
	Pressure Tapping valves	30
	Stop-Off valves	33
	Tools & extension spindles	34



# Electrofusion saddles



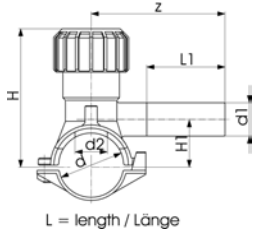
L = length / Länge

## 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
  - In combination with parts of the modular System, the SDR compatibility is defined by the tapping-tees, tapping-valves and spigots with cutter.
- Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477
- \* Complete with moulded-on lower part

	d (mm)	d1 (mm)	Code	Weight (kg)	L (mm)	SDR pipe
	63	63	<b>193 131 037</b>	0.325	165	9 - 11
	75	63	<b>193 131 047</b>	0.455	165	9 - 11
	90	63	<b>193 131 057</b>	0.415	165	9 - 17.6
	110	63	<b>193 131 067</b>	0.458	165	9 - 17.6
*	110	63	<b>193 133 067</b>	0.490	182	9 - 17.6
	125	63	<b>193 131 077</b>	0.502	165	9 - 17.6
	140	63	<b>193 131 087</b>	0.523	165	9 - 17.6
	160	63	<b>193 131 097</b>	0.493	165	9 - 17.6
*	160	63	<b>193 133 097</b>	0.543	182	9 - 17.6
	180	63	<b>193 131 107</b>	0.600	165	9 - 26
	200	63	<b>193 131 117</b>	0.634	165	9 - 26
	225	63	<b>193 131 127</b>	0.618	165	9 - 26
	250	63	<b>193 131 137</b>	0.627	165	9 - 26
Topload	280	63	<b>193 131 147</b>	0.359	165	9 - 26
Topload	315 - 355	63	<b>193 131 157</b>	0.373	165	9 - 33
Topload	400	63	<b>193 131 177</b>	0.356	165	9 - 33

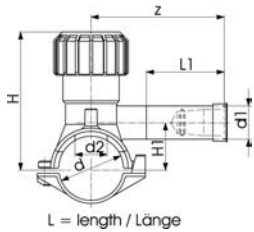
# Tapping saddles



## 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	d1	Code	Weight	d2	H	H1	L	L1	z	SDR pipe
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
40	20	<b>701 131 412</b>	0.225	16	99	33	103	70	102	9 - 11
40	25	<b>701 131 413</b>	0.226	16	99	33	103	70	102	9 - 11
40	32	<b>701 131 414</b>	0.225	16	99	33	103	70	120	9 - 11
50	20	<b>701 131 422</b>	0.214	16	104	38	103	70	102	9 - 11
50	25	<b>701 131 423</b>	0.212	16	104	38	103	70	102	9 - 11
50	32	<b>701 131 424</b>	0.228	16	104	38	103	70	120	9 - 11
63	32	<b>193 131 434</b>	0.425	25	134	44	126	70	130	9 - 17.6



## Tapping saddle with gas-stop type 1-5 bar Monobloc version

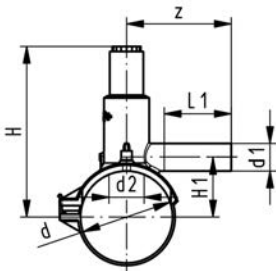
- PE 100 SDR 11 (ISO S5)
- 5 bar Gas (for pressure 1 bar -5 bar)
- With integrated cutter to tap live mains under pressure
- Gas-Stop System Pipelife (GS 20/1 or GS 32/1)
- **Without overflow orifice**
- Set comes with Gas-Stop pre-assembled
- Installation instructions of Gas-Stop manufacturer are to be observed
- Complete with lower part
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring-sealed screw cap

d	d1	Code	Weight	d2	H	H1	L	L1	z	Vn max	SDR pipe
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(m <sup>3</sup> /h)	
40	20	<b>701 281 113</b>	0.229	16	99	33	103	70	102	25	9 - 11
40	32	<b>701 281 152</b>	0.277	16	99	33	103	70	120	100	9 - 11
63	20	<b>193 281 434</b>	0.365	25	134	44	126	70	115	25	9 - 17.6
63	32	<b>193 281 153</b>	0.840	25	134	44	126	70	130	100	9 - 17.6



### 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
- Limited path fusion indicators
- \*Compatible with GASSTOP type GS



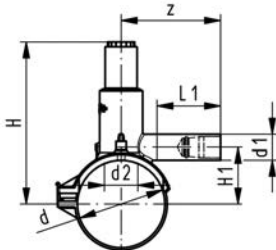
L=length/Länge

	d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
*	63	20	701 131 932	0.413	25	146	44	144	76	110	9 - 11
	63	25	701 131 933	0.387	25	146	44	144	76	110	9 - 11
*	63	32	701 131 934	0.398	25	146	44	144	76	110	9 - 11
*	90	20	701 131 952	0.494	32	198	61	162	76	110	9 - 17.6
	90	25	701 131 953	0.527	32	198	61	162	76	115	9 - 17.6
*	90	32	701 131 954	0.538	32	198	61	162	76	115	9 - 17.6
	90	40	701 131 955	0.450	32	198	61	162	57	197	9 - 17.6
	90	50	701 131 956	0.450	32	198	61	162	63	203	9 - 17.6
	90	63	701 131 957	0.450	32	198	61	162	76	115	9 - 17.6
*	110	20	701 131 962	0.563	32	208	71	162	76	115	9 - 17.6
	110	25	701 131 963	0.570	32	208	71	162	76	115	9 - 17.6
*	110	32	701 131 964	0.580	32	208	71	162	76	125	9 - 17.6
	110	40	701 131 965	0.600	32	208	71	162	57	192	9 - 17.6
	110	50	701 131 966	0.600	32	208	71	162	63	203	9 - 17.6
	110	63	701 131 967	0.600	32	208	71	162	100	125	9 - 17.6
*	125	20	701 131 972	0.566	32	216	79	162	76	120	9 - 17.6
	125	25	701 131 973	0.568	32	216	79	162	76	120	9 - 17.6
*	125	32	701 131 974	0.597	32	216	79	162	76	120	9 - 17.6
	125	40	701 131 975	0.597	32	216	79	162	57	197	9 - 17.6
	125	50	701 131 976	0.597	32	216	79	162	63	203	9 - 17.6
	125	63	701 131 977	0.597	32	216	79	162	76	120	9 - 17.6
*	160	20	701 131 992	0.665	32	233	96	162	76	120	9 - 17.6
	160	25	701 131 993	0.640	32	233	96	162	76	125	9 - 17.6
*	160	32	701 131 994	0.671	32	233	96	162	76	130	9 - 17.6
	160	40	701 131 995	0.790	32	233	96	162	57	197	9 - 17.6
	160	50	701 131 996	0.790	32	233	96	162	63	203	9 - 17.6
	160	63	701 131 997	0.790	32	233	96	162	100	170	9 - 17.6



### Tapping saddle with gas-stop type 1-5 bar Monobloc version

- PE 100 SDR 11 (ISO S5)
- 5 bar Gas (for pressure 1 bar -5 bar)
- With integrated cutter to tap live mains under pressure
- Complete with moulded-on lower part
- Gas-Stop System Pipelife (GS 20/1 or GS 32/1)
- **Without overflow orifice**
- Set comes with Gas-Stop pre-assembled
- Installation instructions of Gas-Stop manufacturer are to be observed
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring-sealed screw cap

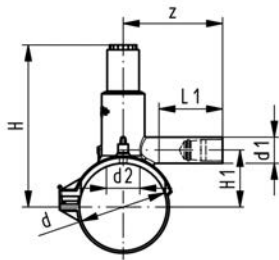


L=length/Länge

	d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	Vn max (m <sup>3</sup> /h)	SDR pipe
	63	20	701 130 432	0.368	25	146	44	144	76	110	25	9 - 11
	63	32	701 130 434	0.392	25	146	44	144	76	110	100	9 - 11
	90	20	701 130 452	0.524	32	198	61	162	76	115	25	9 - 17.6
	90	32	701 130 454	0.520	32	198	61	162	76	115	100	9 - 17.6
	110	20	701 130 462	0.552	32	208	71	162	76	115	25	9 - 17.6
	110	32	701 130 464	0.677	32	208	71	162	76	125	100	9 - 17.6

table continued on the next page





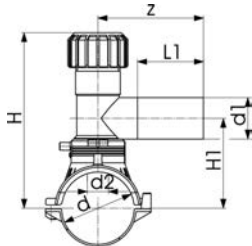
L=length/Länge

d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	Vn max (m <sup>3</sup> /h)	SDR pipe
125	20	<b>701 130 472</b>	0.664	32	216	79	162	76	120	25	9 - 17.6
125	32	<b>701 130 474</b>	0.609	32	216	79	162	76	120	100	9 - 17.6
160	20	<b>701 130 492</b>	0.672	32	233	96	162	76	120	25	9 - 17.6
160	32	<b>701 130 494</b>	0.786	32	233	96	162	76	130	100	9 - 17.6



**Tapping saddle  
With 360° rotatable outlet**

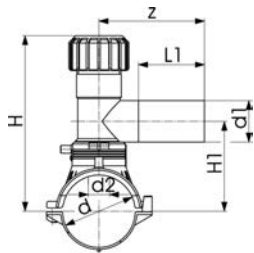
- PE 100 SDR 11 (ISO S5)
  - 10 bar Gas / 16 bar Water
  - With integrated cutter to tap live mains under pressure
  - Complete with lower part
  - 4 mm pin connectors
  - Limited path fusion indicators
  - Long fusion outlet
  - O-ring-sealed screw cap
  - d315-400 mm: restricted application for pipes d355 and d400 mm. Not suitable for pipes if wall thickness is larger than SDR17 pipes. For SDR11 pipes tapping saddles 193131867 and 193131877 are to be used.
  - \*Supplied as kit with enclosed service line electrofusion reducer
- Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required



L = length / Länge

d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe	
63	40	<b>701 131 405</b>	0.718	32	186	108	165	81	137	9 - 11	
63	50	<b>701 132 436</b>	1.619	32	234	112	165	100	160	9 - 11	
63	63	<b>701 131 437</b>	1.455	32	134	112	165	100	160	9 - 11	
75	32	<b>701 131 444</b>	0.812	32	191	113	165	76	130	9 - 11	
75	40	<b>701 131 445</b>	0.849	32	191	113	165	81	137	9 - 11	
75	50	<b>701 132 446</b>	1.748	32	240	118	165	100	160	9 - 11	
75	63	<b>701 131 447</b>	1.549	32	240	118	165	100	160	9 - 11	
140	20	<b>193 131 482</b>	0.887	32	233	146	165	71	130	9 - 17.6	
140	25	<b>193 131 483</b>	0.874	32	233	146	165	71	130	9 - 17.6	
140	32	<b>193 131 484</b>	0.894	32	233	146	165	76	130	9 - 17.6	
140	40	<b>193 131 485</b>	0.920	32	233	146	165	81	137	9 - 17.6	
140	63	<b>193 131 487</b>	1.180	35	273	151	165	100	160	9 - 17.6	
180	20	<b>193 131 502</b>	0.994	32	244	166	165	71	130	9 - 26	
180	25	<b>193 131 503</b>	1.001	32	244	166	165	71	130	9 - 26	
180	32	<b>193 131 504</b>	0.957	32	244	166	165	76	130	9 - 26	
180	40	<b>193 131 505</b>	1.007	32	244	166	165	81	137	9 - 26	
*	180	50	<b>193 132 506</b>	1.938	35	293	171	165	100	160	9 - 26
180	63	<b>193 131 507</b>	1.587	35	293	171	165	100	160	9 - 26	
200	20	<b>193 131 512</b>	1.015	32	254	176	165	71	130	9 - 26	
200	25	<b>193 131 513</b>	1.015	32	254	176	165	71	130	9 - 26	
200	32	<b>193 131 514</b>	0.985	32	254	176	165	76	130	9 - 26	
200	40	<b>193 131 515</b>	1.024	32	254	176	165	81	137	9 - 26	
*	200	50	<b>193 132 516</b>	1.957	35	303	181	165	100	160	9 - 26
200	63	<b>193 131 517</b>	1.290	35	303	181	165	100	160	9 - 26	
225	20	<b>193 131 522</b>	1.016	32	266	188	165	71	130	11 - 26	
225	25	<b>193 131 523</b>	1.025	32	266	188	165	71	130	11 - 26	
225	32	<b>193 131 524</b>	1.019	32	266	188	165	76	130	11 - 26	
225	40	<b>193 131 525</b>	1.029	32	266	188	165	81	137	11 - 26	
*	225	50	<b>193 132 526</b>	1.921	35	315	193	165	100	160	11 - 26
225	63	<b>193 131 527</b>	1.738	35	315	193	165	100	160	11 - 26	
250	20	<b>193 131 532</b>	1.025	32	279	201	165	76	130	11 - 26	
250	25	<b>193 131 533</b>	1.026	32	279	201	165	76	130	11 - 26	
250	32	<b>193 131 534</b>	0.996	32	279	201	165	76	130	11 - 26	

table continued on the next page



L = length / Länge

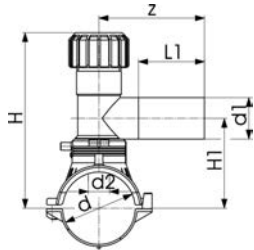
	d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
	250	40	<b>193 131 535</b>	1.008	32	279	201	165	81	137	11 - 26
*	250	50	<b>193 132 536</b>	1.971	35	328	206	165	100	160	11 - 26
	250	63	<b>193 131 537</b>	1.733	35	328	206	165	100	160	11 - 26
Topload	280	63	<b>193 131 547</b>	1.478	35	343	206	165	100	160	11 - 26
Topload	315-355	63	<b>193 131 557</b>	1.481	35	381	206	165	100	160	17 - 33
Topload	400	63	<b>193 131 577</b>	1.473	35	403	206	165	100	160	17 - 33



### 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
- **Suitable to tap SDR11 pipes**
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- O-ring-sealed screw cap

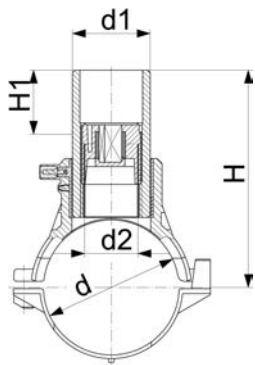
Delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required



L = length / Länge

	d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
Topload	315-355	63	<b>193 131 867</b>	1.473	33	328	206	165	100	160	11 - 33
Topload	400	63	<b>193 131 877</b>	1.473	33	328	206	165	100	160	11 - 33

# Various saddles

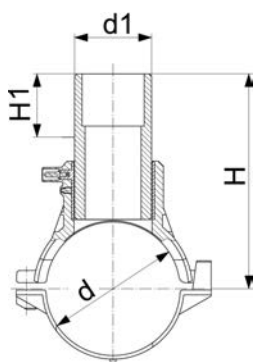


L = length / Länge

## 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
  - d355-400mm. Not suitable for pipes if wall thickness is larger than SDR17 pipes.
- Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required

	d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	SW (mm)	SDR pipe
	63	32	193 131 234	0.469	19	145	50	165	13	9 - 11
	63	63	193 131 237	1.036	32	152	50	165	17	9 - 11
	75	32	193 131 244	0.618	19	151	50	165	13	9 - 11
	75	63	193 131 247	1.166	32	158	50	165	17	9 - 11
	90	32	193 131 254	0.543	19	158	50	165	13	9 - 17.6
	90	63	193 131 257	1.128	32	165	50	165	17	9 - 17.6
	110	32	193 131 264	0.607	19	168	50	182	13	9 - 17.6
	110	63	193 131 267	1.195	32	175	50	182	17	9 - 17.6
	125	32	193 131 274	0.659	19	176	50	165	13	9 - 17.6
	125	63	193 131 277	1.224	32	183	50	165	17	9 - 17.6
	140	32	193 131 284	0.679	19	183	50	165	13	9 - 17.6
	140	63	193 131 287	1.224	32	190	50	165	17	9 - 17.6
	160	32	193 131 294	0.652	19	193	50	182	13	9 - 17.6
	160	63	193 131 297	0.850	32	200	50	182	17	9 - 17.6
	180	32	193 131 304	0.777	19	203	50	165	13	9 - 26
	180	63	193 131 307	1.316	32	210	50	165	17	9 - 26
	200	32	193 131 314	0.854	19	213	50	165	13	9 - 26
	200	63	193 131 317	1.352	32	220	50	165	17	9 - 26
	225	32	193 131 324	0.856	19	226	50	165	13	11 - 26
	225	63	193 131 327	1.324	32	233	50	165	17	11 - 26
	250	32	193 131 334	0.787	19	238	50	165	13	11 - 26
	250	63	193 131 337	1.348	32	245	50	165	17	11 - 26
Topload	280	63	193 131 347	0.830	35	260	50	165	17	11 - 26
Topload	315 - 355	63	193 131 357	1.094	35	298	50	165	17	17 - 33
Topload	400	63	193 131 377	0.830	35	320	50	165	17	17 - 33



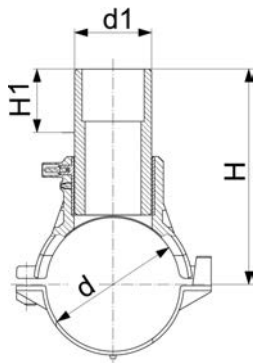
L = length / Länge

## Spigot 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
- Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required

	d (mm)	d1 (mm)	Code	Weight (kg)	H (mm)	H1 (mm)	L (mm)	SDR pipe
	63	32	193 130 234	0.434	145	50	165	9 - 11
	63	63	193 130 237	0.630	152	50	165	9 - 11
	75	32	193 130 244	0.634	151	50	165	9 - 11
	75	63	193 130 247	0.536	158	50	165	9 - 11
	90	32	193 130 254	0.508	158	50	165	9 - 17.6
	90	63	193 130 257	0.573	165	50	165	9 - 17.6
	110	32	193 130 264	0.590	168	50	182	9 - 17.6
	110	63	193 130 267	0.600	175	50	182	9 - 17.6
	125	32	193 130 274	0.594	176	50	165	9 - 17.6
	125	63	193 130 277	0.660	183	50	165	9 - 17.6

table continued on the next page



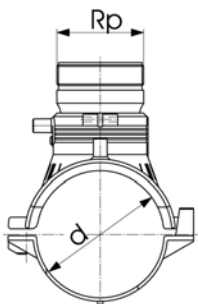
L = length / Länge

	d (mm)	d1 (mm)	Code	Weight (kg)	H (mm)	H1 (mm)	L (mm)	SDR pipe
	140	32	<b>193 130 284</b>	0.638	183	50	165	9 - 17.6
	140	63	<b>193 130 287</b>	0.594	190	50	165	9 - 17.6
	160	32	<b>193 130 294</b>	0.600	193	50	182	9 - 17.6
	160	63	<b>193 130 297</b>	0.658	200	50	182	9 - 17.6
	180	32	<b>193 130 304</b>	0.742	203	50	165	9 - 26
	180	63	<b>193 130 307</b>	0.771	210	50	165	9 - 26
	200	32	<b>193 130 314</b>	0.766	213	50	165	9 - 26
	200	63	<b>193 130 317</b>	0.762	220	50	165	9 - 26
	225	32	<b>193 130 324</b>	0.730	226	50	165	9 - 26
	225	63	<b>193 130 327</b>	0.782	233	50	165	9 - 26
	250	32	<b>193 130 334</b>	0.741	238	50	165	9 - 26
	250	63	<b>193 130 337</b>	0.792	245	50	165	9 - 26
Topload	280	63	<b>193 130 347</b>	0.400	260	50	165	9 - 26
Topload	315 - 355	63	<b>193 130 357</b>	0.503	298	50	165	9 - 33
Topload	400	63	<b>193 130 377</b>	0.400	320	50	165	9 - 33

### Stop-off saddle (kit) Maximum passage 56.5 mm



- PE 100 SDR 11 (ISO S5)
  - 10 bar Gas / 16 bar Water
  - Complete with lower part
  - Stop-Off insert (CW617N) and plug
  - 4 mm pin connectors
  - Limited path fusion indicators
  - Stop-Off insert with outside thread Rp 2 1/2" and internal thread Rp 2" suited for common tapping devices permitting "gas-tight" installation
  - We recommend the following maximum cutting diameter: For main dimension d63 and d75mm: d = 39mm; For main dimension d90mm: d = 50mm
- Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required



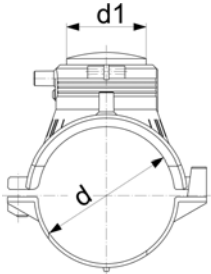
L = length / Länge

	d (mm)	Rp (inch)	Code	Weight (kg)	L (mm)	SDR pipe
	63	2 ½	<b>193 149 437</b>	1.770	165	9 - 11
	75	2 ½	<b>193 149 447</b>	1.900	165	9 - 11
	90	2 ½	<b>193 149 457</b>	1.775	165	9 - 17.6
	110	2 ½	<b>193 149 467</b>	1.788	165	9 - 17.6
	125	2 ½	<b>193 149 477</b>	1.923	165	9 - 17.6
	140	2 ½	<b>193 149 487</b>	1.945	165	9 - 17.6
	160	2 ½	<b>193 149 497</b>	1.861	165	9 - 17.6
	180	2 ½	<b>193 149 507</b>	2.017	165	9 - 26
	200	2 ½	<b>193 149 517</b>	2.092	165	9 - 26
	225	2 ½	<b>193 149 527</b>	2.031	165	9 - 26
	250	2 ½	<b>193 149 537</b>	2.058	165	9 - 26
Topload	280	2 ½	<b>193 149 547</b>	1.550	165	9 - 26
Topload	315 - 355	2 ½	<b>193 149 557</b>	1.770	165	9 - 33
Topload	400	2 ½	<b>193 149 577</b>	1.550	165	9 - 33



### Repair saddle

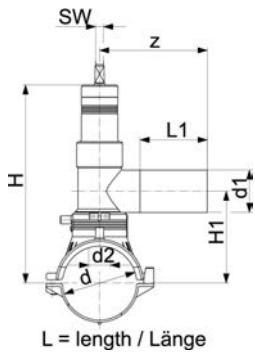
- PE 100 SDR 11 (ISO S5)
  - 10 bar Gas / 16 bar Water
  - Complete with lower part
  - 4 mm pin connectors
  - Limited path fusion indicators
  - Supplied as kit including Spigot Cap (753.961.011)
- Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required



L = length / Länge

	d (mm)	d1 (mm)	Code	Weight (kg)	L (mm)	SDR pipe
	63	63	<b>193 130 037</b>	0.417	165	9 - 11
	75	63	<b>193 130 047</b>	0.574	165	9 - 11
	90	63	<b>193 130 057</b>	0.513	165	9 - 17.6
	110	63	<b>193 130 067</b>	0.565	182	9 - 17.6
	125	63	<b>193 130 077</b>	0.622	165	9 - 17.6
	140	63	<b>193 130 087</b>	0.660	165	9 - 17.6
	160	63	<b>193 130 097</b>	0.589	182	9 - 17.6
	180	63	<b>193 130 107</b>	0.733	165	9 - 26
	200	63	<b>193 130 117</b>	0.731	165	9 - 26
	225	63	<b>193 130 127</b>	0.708	165	9 - 26
	250	63	<b>193 130 137</b>	0.640	165	9 - 26
Topload	280	63	<b>193 130 147</b>	0.450	165	9 - 26
Topload	315 - 355	63	<b>193 130 157</b>	0.443	165	9 - 33
Topload	400	63	<b>193 130 177</b>	0.450	165	9 - 33

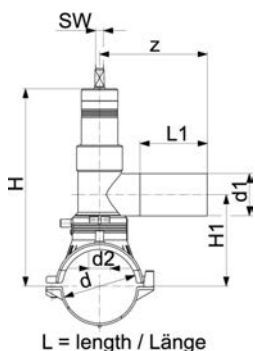
# Pressure tapping valves



## Pressure tapping valve 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 and premounted PE100 coated valve piece
- The valve is closed clockwise
- Number of turns to fully open or close valve is 13 for outlet d32
- Number of turns to fully open or close valve is 28 for outlet d63
- Spindle size (SW) 14
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet

d	d1	Code	Weight	d2	H	H1	L	L1	z	SDR pipe
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
63	32	701 488 700	2.935	21	202	97	165	70	127	9-11
63	63	701 488 720	2.682	31	272	112	165	100	160	9-11
75	32	701 488 701	2.793	21	208	103	165	70	127	9-11
75	63	701 488 721	3.065	31	278	118	165	100	160	9-11
90	32	701 488 702	1.909	21	216	111	165	70	127	9-17.6
90	63	701 488 722	2.775	31	286	126	165	100	160	9-17.6
110	32	701 488 703	1.925	21	226	121	165	70	127	9-17.6
110	63	701 488 723	2.797	31	296	136	165	100	160	9-17.6
125	32	701 488 704	1.874	21	233	128	165	70	127	9-17.6
125	63	701 488 724	2.854	31	303	143	165	100	160	9-17.6
140	32	701 488 705	3.123	21	241	136	165	70	127	9-17.6
140	63	701 488 725	3.123	31	311	151	165	100	160	9-17.6
160	32	701 488 706	1.983	21	251	146	165	70	127	9-17.6
160	63	701 488 726	2.880	31	321	161	165	100	160	9-17.6
180	32	701 488 707	2.090	21	261	156	165	70	127	9-26
180	63	701 488 727	2.964	31	331	171	165	100	160	9-26
200	32	701 488 708	2.949	21	271	166	165	70	127	9-26
200	63	701 488 728	3.251	31	341	181	165	100	160	9-26
225	32	701 488 709	3.253	21	281	178	165	70	127	11-26
225	63	701 488 729	3.253	31	353	193	165	100	160	11-26
250	63	701 488 730	3.000	31	366	206	165	100	160	11-26



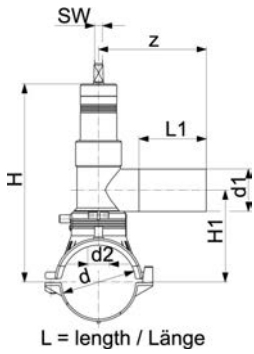
## Pressure tapping valve With 360° rotatable outlet type LU

- PE 100 SDR 11 (ISO S8)
- 10 bar Gas / 16 bar Water
- With integrated drill bit to tap live mains under pressure
- **Suitable for pipes with wall thickness between 7 and 21 mm only.**
- Complete with lower part and premounted PE100 coated valve piece
- The valve is closed clockwise
- Number of turns to fully open or close valve is 13 for outlet d32
- Number of turns to fully open or close valve is 28 for outlet d63
- Spindle size (SW) 14
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet

Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required

	d	d1	Code	Weight	d2	H	H1	L	L1	z	SDR pipe
	(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
	250	32	701 488 710	3.000	21	293	191	165	70	127	17-26
Topload	280	32	701 488 711	3.000	21	293	191	165	70	127	17-26
Topload	280	63	701 488 731	3.000	31	366	206	165	100	160	17-26

table continued on the next page

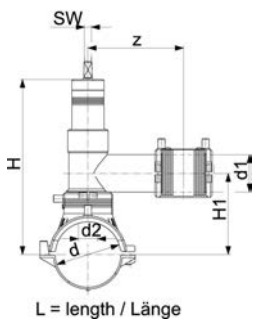


	d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	L1 (mm)	z (mm)	SDR pipe
Topload	315-355	32	<b>701 488 712</b>	2.683	21	293	191	165	70	127	17-33
Topload	315-355	63	<b>701 488 732</b>	3.000	31	366	206	165	100	160	17-33
Topload	400	32	<b>701 488 733</b>	2.683	21	293	191	165	70	127	21-33
Topload	400	63	<b>701 488 734</b>	3.000	31	366	206	165	100	160	21-33



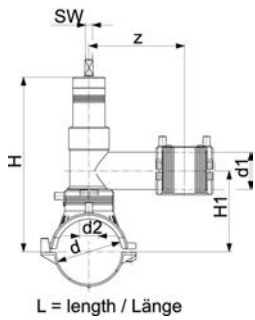
### Pressure tapping valve (kit) With 360° rotatable outlet

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- With integrated drill bit to tap live mains under pressure
- Complete with lower part and premounted PE100 coated valve piece
- The valve is closed clockwise
- Number of turns to fully open or close valve is 13 for outlet d32
- Number of turns to fully open or close valve is 28 for outlet d 40, d 50, d 63
- Spindle size (SW) 14
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- Supplied as kit with enclosed service line fitting (Monoline coupler or reducer)



d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	H (mm)	H1 (mm)	L (mm)	z (mm)	SDR pipe
63	32	<b>701 488 912</b>	3.113	21	202	97	165	127	9-11
63	40	<b>701 488 913</b>	3.119	31	272	112	165	160	9-11
63	50	<b>701 488 914</b>	3.131	31	272	112	165	160	9-11
63	63	<b>701 488 915</b>	2.820	31	272	112	165	160	9-11
75	32	<b>701 488 916</b>	1.998	21	208	103	165	127	9-11
75	40	<b>701 488 917</b>	3.249	31	278	118	165	160	9-11
75	50	<b>701 488 918</b>	3.261	31	278	118	165	160	9-11
75	63	<b>701 488 919</b>	3.016	31	278	118	165	160	9-11
90	32	<b>701 488 920</b>	1.878	21	216	111	165	127	9-17.6
90	40	<b>701 488 921</b>	3.209	31	286	126	165	160	9-17.6
90	50	<b>701 488 922</b>	3.215	31	286	126	165	160	9-17.6
90	63	<b>701 488 923</b>	3.025	31	286	126	165	160	9-17.6
110	32	<b>701 488 924</b>	3.093	21	226	121	165	127	9-17.6
110	40	<b>701 488 925</b>	2.867	31	296	136	165	160	9-17.6
110	50	<b>701 488 926</b>	3.093	31	296	136	165	160	9-17.6
110	63	<b>701 488 927</b>	3.093	31	296	136	165	160	9-17.6
125	32	<b>701 488 928</b>	3.123	21	233	128	165	127	9-17.6
125	40	<b>701 488 929</b>	3.123	31	303	143	165	160	9-17.6
125	50	<b>701 488 930</b>	3.123	31	303	143	165	160	9-17.6
125	63	<b>701 488 931</b>	3.123	31	303	143	165	160	9-17.6
140	32	<b>701 488 932</b>	3.123	21	241	136	165	127	9-17.6
140	40	<b>701 488 933</b>	3.041	31	311	151	165	160	9-17.6
140	50	<b>701 488 934</b>	3.123	31	311	151	165	160	9-17.6
140	63	<b>701 488 935</b>	3.123	31	311	151	165	160	9-17.6
160	32	<b>701 488 936</b>	3.126	21	251	146	165	127	9-17.6
160	40	<b>701 488 937</b>	3.126	31	321	161	165	160	9-17.6
160	50	<b>701 488 938</b>	3.126	31	321	161	165	160	9-17.6
160	63	<b>701 488 939</b>	3.126	31	321	161	165	160	9-17.6
180	32	<b>701 488 940</b>	3.232	21	261	156	165	127	9-26
180	40	<b>701 488 941</b>	3.097	31	331	171	165	160	9-26
180	50	<b>701 488 942</b>	3.226	31	331	171	165	160	9-26
180	63	<b>701 488 943</b>	3.232	31	331	171	165	160	9-26
200	32	<b>701 488 944</b>	3.251	21	271	166	165	127	9-26

table continued on the next page



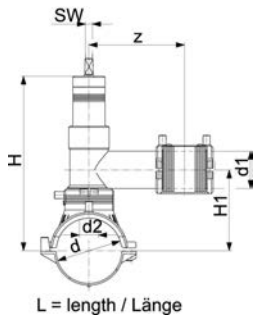
d	d1	Code	Weight	d2	H	H1	L	z	SDR pipe
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	
200	40	<b>701 488 945</b>	3.251	31	341	181	165	160	9-26
200	50	<b>701 488 946</b>	3.251	31	341	181	165	160	9-26
200	63	<b>701 488 947</b>	3.047	31	341	181	165	160	9-26
225	32	<b>701 488 948</b>	3.253	21	281	178	165	127	11-26
225	40	<b>701 488 949</b>	3.253	31	353	193	165	160	11-26
225	50	<b>701 488 950</b>	3.253	31	353	193	165	160	11-26
225	63	<b>701 488 951</b>	3.253	31	353	193	165	160	11-26
250	40	<b>701 488 953</b>	3.000	31	366	206	165	160	11-26
250	50	<b>701 488 954</b>	3.000	31	366	206	165	160	11-26
250	63	<b>701 488 955</b>	3.000	31	366	206	165	160	11-26



### Pressure tapping valve (kit) With 360° rotatable outlet

- PE 100 SDR 11 (ISO S8)
- 10 bar Gas / 16 bar Water
- With integrated drill bit to tap live mains under pressure
- **Suitable for pipes with wall thickness between 7 and 21 mm only.**
- Complete with lower part and premounted PE100 coated valve piece
- The valve is closed clockwise
- Number of turns to fully open or close valve is 13 for outlet d32
- Number of turns to fully open or close valve is 28 for outlet d 40, d 50, d 63
- Spindle size (SW) 14
- 4 mm pin connectors
- Limited path fusion indicators
- Long fusion outlet
- Supplied as kit with enclosed service line fitting (Monoline coupler or reducer)

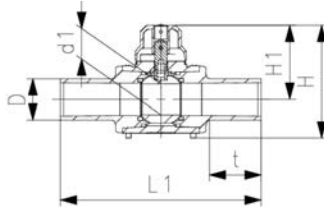
Topload: delivery without lower part for assembling as Top Load with tool no. 799.350.477; angle adaptor (799.350.340) for fusion cable required



	d	d1	Code	Weight	d2	H	H1	L	z	SDR pipe
	(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	
	250	32	<b>701 488 952</b>	3.000	21	293	191	165	127	17-26
Topload	280	32	<b>701 488 956</b>	3.000	21	293	191	165	127	17-26
Topload	280	40	<b>701 488 957</b>	3.000	31	366	206	165	160	17-26
Topload	280	50	<b>701 488 958</b>	3.000	31	366	206	165	160	17-26
Topload	280	63	<b>701 488 959</b>	3.000	31	366	206	165	160	17-26
Topload	315 - 355	32	<b>701 488 960</b>	3.000	21	293	191	165	127	17-33
Topload	315 - 355	40	<b>701 488 961</b>	3.000	31	366	206	165	160	17-33
Topload	315 - 355	50	<b>701 488 962</b>	3.000	31	366	206	165	160	17-33
Topload	315 - 355	63	<b>701 488 963</b>	3.000	31	366	206	165	160	17-33



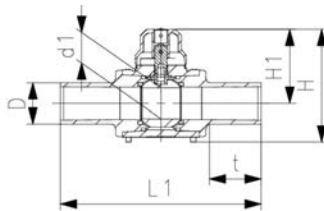
# Stop-off Valves



## Ball valve

- PE 100 SDR 11 (ISO S5) - d20 up to d225
- 10 bar Gas / 16 bar Water
- d160 up to d225 are supplied with base plate and straps
- d1 = diameter of bore
- Regarding pressure rate and application local standards and regulations have to be considered
- \* In accordance with ANSI B16.40

d (mm)	Code	Weight (kg)	d1 (mm)	L1 (mm)	H (mm)	H1 (mm)	t (mm)
20	193 103 206	0.487	23	264	134	96	72
25	193 103 207	0.490	23	264	134	96	72
32	193 103 208	0.506	23	274	134	96	76
40	193 103 209	0.616	30	301	142	100	85
50	193 103 210	0.829	38	327	156	107	92
63	193 103 211	1.174	48	350	173	114	101
75	193 103 212	1.434	48	376	173	114	114
90	193 103 213	2.918	68	439	240	158	128
110	193 103 214	4.416	83	497	267	171	148
125	193 103 040	4.220	62	400	280	195	106
160	193 103 042	10.541	88	450	360	235	116
180	193 103 043	10.524	88	540	360	235	117
200	193 103 044	12.023	88	540	360	235	164
*	225	193 103 045	24.400	120	880	470	240



## Ball valve "full bore"

- PE 100 SDR 11 (ISO S5) - d20 up to d225
- 10 bar Gas / 16 bar Water
- d1 = diameter of bore
- For extension spindles with polygon connection
- \* In accordance with ANSI B16.40, MOP 6,9 bar Gas

d (mm)	Code	Weight (kg)	d1 (mm)	L1 (mm)	H (mm)	H1 (mm)	t (mm)
110	193 104 039	8.973	88	425	350	229	100
160	193 104 042	24.254	132	600	473	320	98

# Tools & extension spindles

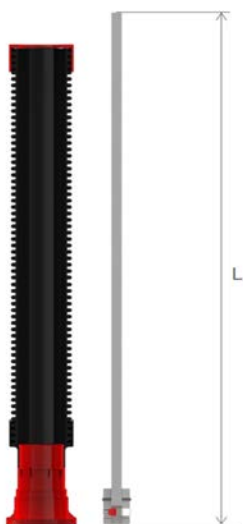


## Clamping device topload 630

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm and branch fittings for dimensions d 280 mm – 630 mm.
- Scope of delivery: 1 base mounting clamp, 1 clamping attachment, 1 bracket, 2 clamping screws, 2 ratchet scraps, 1 transport box

d-d (mm)	Code	Weight (kg)
280 - 630	<b>799 350 477</b>	28.400

## Extension spindle for tapping valves rigid



- PE-casing with anti-sand cap
- PE-sleeve, suitable for tapping valve
- Square bar steel, hot-dip galvanized
- Clip-pin from stainless steel 1.4301
- Bush CJS400-15 with slot and clip-pin (tool-free connection)

Pipe cover (m)	Code	Weight (kg)	L (m)
0.75	<b>160 050 620</b>	0.897	0.43
1.00	<b>160 050 621</b>	1.544	0.74
1.25	<b>160 050 622</b>	1.944	0.99
1.50	<b>160 050 623</b>	2.246	1.18

## Extension spindle for tapping valve telescopic



- Continuously adjustable and self-supporting
- Pullout- and dirt-safe
- Rod hot-dip galvanized
- PE-casing and PE-centering cap with gasket
- Clip-pin from stainless steel 1.4301
- Bush GJS400-15 with slot and clip-pin (tool-free connection)
- PE-sleeve, suitable for tapping valve

Pipe cover (m)	Code	Weight (kg)	L (m)
0.75-1.00	<b>160 050 520</b>	1.475	0.45 - 0.70
1.00-1.50	<b>160 050 521</b>	2.356	0.76 - 1.30
1.30-1.90	<b>160 050 522</b>	2.881	0.93 - 1.55
1.70-2.70	<b>160 050 523</b>	2.000	1.30 - 2.35



### Ball valve operational key

- Made out of PVC
- Suitable for all dimensions

Length (mm)	Code	Weight (kg)
200	<b>173 103 082</b>	0.378
500	<b>173 103 083</b>	0.753
1240	<b>173 103 084</b>	1.714



### Ball valve accessory kit

- Extension spindle made out of PVC
- 100% plastic solution for a non-corrosive system

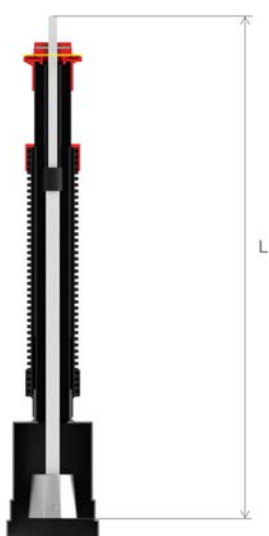
Article	Code	Weight (kg)
Kit	<b>173 103 056</b>	1.695



### Ball valve extension spindle

- Extension spindle made out of PVC
- 100% plastic solution for a non-corrosive system

Length (mm)	Code	Weight (kg)
400	<b>173 103 080</b>	0.770



### Extension spindle for ball valve Telescopic

- For ELGEF Plus ball valve d125-d225mm
- For ELGEF Plus ball valve "Full Bore" d110mm and d160mm
- Continuously adjustable and self-supporting
- Pullout- and dirt-safe
- Rod hot-dip galvanized
- PE-casing and PE-centering cap with gasket
- Polygon-bush from galvanized steel
- PE-sleeve, fitted for all dimensions

d-d (mm)	Pipe cover	Code	Weight (kg)	L (m)
125 - 225	0.75-1.10	<b>173 103 075</b>	2.100	0.60 - 0.96
125 - 225	1.10-1.80	<b>173 103 076</b>	3.108	0.95 - 1.60
125 - 225	1.65-2.75	<b>173 103 077</b>	7.200	1.40 - 2.50



### Extension spindle for ball valve Telescopic

- For ELGEF Plus ball valve d20-d110mm
- Extension spindle acc. to DVGW GW336
- Steel square connection 20x20mm for d20-75
- Steel square connection 25x25mm for d90-d110
- Continuously adjustable and self-supporting
- Pullout- and dirt-safe
- Rod hot-dip galvanized
- PE-casing and PE-centering cap with gasket
- Inclusive clip-pin out of stainless steel

d-d (mm)	Pipe cover (mm)	Code	L (m)
20 - 75	0.75-1.10	<b>173 103 175</b>	0.54 - 0.93
20 - 75	1.10-1.70	<b>173 103 176</b>	0.87 - 1.55
20 - 75	1.60-2.50	<b>173 103 177</b>	1.32 - 2.39
90 - 110	0.75-1.10	<b>173 103 185</b>	0.55 - 0.85
90 - 110	1.10-1.70	<b>173 103 186</b>	0.80 - 1.38
90 - 110	1.60-2.50	<b>173 103 187</b>	1.30 - 2.33



### Tapping key for saddles

- With adjustable tapping depth.

Type	Code	Weight (kg)	Description
WS - 10	<b>799 198 080</b>	0.114	for Monobloc d 40 mm and d 50 mm
WS - 17	<b>799 198 079</b>	0.556	for Monobloc d 63 mm, d 90 - 160 mm and all Duobloc saddles
WS - 12.7	<b>799 198 091</b>	0.600	for spigot saddle with cutter



### Pressure test cap for Tapping saddles

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

Type	Code	Weight (kg)	Description
M	<b>799 199 282</b>	0.116	for Monobloc d 40 mm and d 50 mm
S 54	<b>799 199 283</b>	0.260	for Tapping Tee d 20 - 40 mm
S 67	<b>799 199 286</b>	0.430	for Tapping Tee outlet d 63 mm
MB	<b>799 199 287</b>	0.037	for Monobloc d63-160 mm and Branch saddle outlet d160/225 mm



### Tapping Adapter for 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	Weight (kg)	Description
S 54	799 100 061	0.785	for Tapping Tee d 32 mm
S 67	799 100 062	1.011	for Tapping Tee d 63 mm






### Hexagon key for saddles and branch fittings

- For tightening fixation screws.

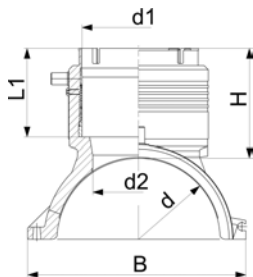
Type	Code	Weight (kg)	Description
SW8	799 150 378	0.129	For all saddles and branch fittings

# Monoline branch saddles

Branch saddles	Page
	Branch saddles 39
	Branch saddles toplevel 40
	Accessories & tools 43



# Branch saddles

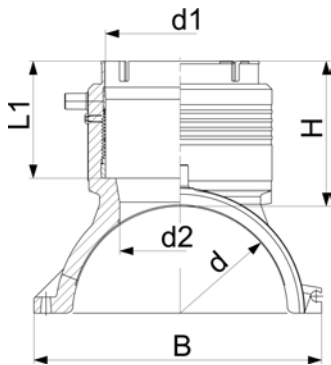


## Branch saddle outlet 90 - 125 mm

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch Saddle 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 toolno. 193.281.027

	d (mm)	d1 (mm)	Code	Weight (kg)	H (mm)	L (mm)	L1 (mm)	B (mm)	d2 (mm)	SDR pipe
	110	90	<b>193 135 009</b>	1.124	101	220	82	164	65	9-17.6
	110	110	<b>193 135 010</b>	1.224	107	220	88	164	65	9-17.6
	125	90	<b>193 135 019</b>	1.134	101	220	82	179	65	9-17.6
	125	110	<b>193 135 020</b>	1.290	107	220	88	179	65	9-17.6
*	140	90	<b>193 135 029</b>	0.982	101	220	81	195	65	9-17.6
*	140	110	<b>193 135 030</b>	1.087	107	220	87	195	65	9-17.6
	160	90	<b>193 135 039</b>	1.449	102	240	82	215	65	9-17.6
	160	110	<b>193 135 040</b>	1.582	108	240	88	215	86	9-17.6
	160	125	<b>193 135 041</b>	1.782	129	240	99	215	86	9-17.6
	180	90	<b>193 135 049</b>	1.672	102	260	82	237	65	9-17.6
	180	110	<b>193 135 050</b>	1.765	108	260	88	237	86	9-17.6
	180	125	<b>193 135 051</b>	2.015	129	260	99	237	86	9-17.6
	200	90	<b>193 135 059</b>	1.803	102	260	82	253	65	9-17.6
	200	110	<b>193 135 060</b>	1.963	108	260	88	253	86	9-17.6
	200	125	<b>193 135 061</b>	2.128	129	260	99	253	86	9-17.6
	225	90	<b>193 135 069</b>	2.006	102	260	82	287	65	9-17.6
	225	110	<b>193 135 070</b>	2.400	108	260	88	287	86	9-17.6
	225	125	<b>193 135 071</b>	2.312	129	260	99	287	86	9-17.6
	250	90	<b>193 135 079</b>	2.145	102	260	82	312	65	9-17.6
	250	110	<b>193 135 080</b>	2.258	108	260	88	312	86	9-17.6
	250	125	<b>193 135 081</b>	2.500	129	260	99	312	86	9-17.6

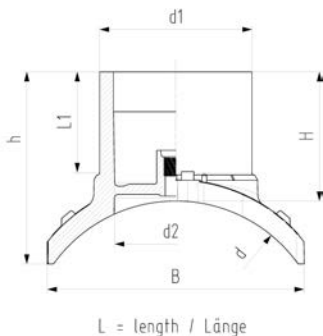
# Branch saddles toplod



## Branch saddle toplod outlet 90 - 125 mm

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch Saddle for assembling as Topload with tool 799.350.477; angle adaptors (799.350.340) for fusion cable required
- Electrofusion outlet with integrated pipe fixation
- Protected wire without medium contact
- 4 mm pin connectors
- Limited path fusion indicators

d	d1	Code	Weight	H	L	L1	B	d2	SDR pipe
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	
280	90	193 135 289	1.242	102	260	82	243	65	9-26
280	110	193 135 290	1.295	108	260	88	243	86	9-26
280	125	193 135 291	1.530	129	260	99	243	86	9-26
315 - 355	90	193 135 309	1.214	102	260	82	249	65	9-26
315 - 355	110	193 135 310	1.297	108	260	88	249	86	9-26
315 - 355	125	193 135 311	1.530	129	260	99	249	86	9-26
400	90	193 135 329	1.022	102	260	82	256	65	9-26
400	110	193 135 330	1.116	108	260	88	256	86	9-26
400	125	193 135 331	1.369	129	260	99	256	86	9-26
450	90	193 135 339	1.022	102	260	82	256	65	9-26
450	110	193 135 340	1.116	108	260	88	256	86	9-26
450	125	193 135 341	1.369	129	260	99	256	86	9-26
500 - 630	90	193 135 159	1.086	102	260	82	263	65	9-26
500 - 630	110	193 135 160	1.159	108	260	88	263	86	9-26
500 - 630	125	193 135 161	1.388	129	260	99	263	86	9-26



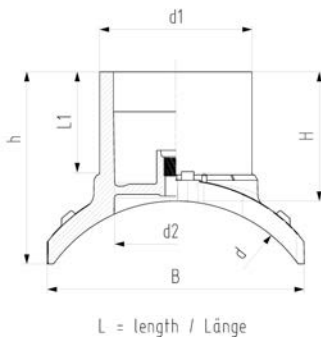
## Branch saddle toplod outlet 160 - 225 mm

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch Saddle installation only with installation set Topload TL225 (799.300.807)
- Angle adaptors (799.350.340) for fusion cable required
- 4 mm pin connectors
- Limited path fusion indicators
- Spigot outlet for butt- and electrofusion
- Full pressure applicable - no derating factor
- With integrated pressure test port for test cap (799.199.287)

d	d1	Code	Weight	d2	L	L1	h	H	B	SDR pipe
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
315	160	193 135 202	2.548	131	322	110	212	137	270	11-26
315	225	193 135 204	4.625	184	366	127	306	160	301	11-26
355	160	193 135 212	2.348	131	322	110	206	137	270	11-26
355	225	193 135 214	4.594	184	366	127	319	160	313	11-26
400	160	193 135 222	2.623	131	322	110	198	137	290	11-26
400	225	193 135 224	4.612	184	366	127	329	160	303	11-26
450	160	193 135 232	2.429	131	322	110	194	137	290	11-26
450	225	193 135 234	4.301	184	366	127	329	160	324	11-26
500	160	193 135 242	2.690	131	322	110	186	137	303	11-26
500	225	193 135 244	4.569	184	366	127	344	160	341	11-26
560	160	193 135 252	2.495	131	322	110	183	137	303	11-26
560	225	193 135 254	4.321	184	366	127	344	160	341	11-26
630	160	193 135 262	2.616	131	322	110	177	137	305	11-33
630	225	193 135 264	4.750	184	366	127	353	160	349	11-33
710	160	193 135 272	2.504	131	322	110	172	137	305	11-33
710	225	193 135 274	4.360	184	366	127	352	160	350	11-33

table continued on the next page



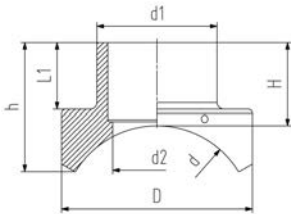


d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	L (mm)	L1 (mm)	h (mm)	H (mm)	B (mm)	SDR pipe
800	160	<b>193 135 282</b>	2.399	131	366	127	168	137	305	11-33
800	225	<b>193 135 284</b>	4.553	184	366	127	359	160	357	11-33
900	225	<b>193 135 294</b>	4.390	184	366	127	359	160	356	11-33
1000	225	<b>193 135 304</b>	4.262	184	366	127	359	160	356	11-33



### Branch saddle topload outlet 315 mm

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Branch saddle installation only with installation set Topload TL500 (799.300.809)
- Angle adaptors (799.350.340) for fusion cable required
- 4 mm pin connectors
- Spigot outlet for butt- and electrofusion
- Full pressure applicable - no derating factor

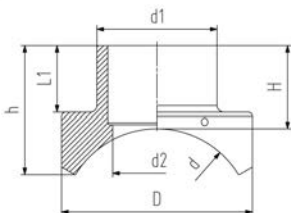


d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	D (mm)	L (mm)	L1 (mm)	h (mm)	H (mm)	SDR pipe
450	315	<b>193 135 436</b>	18.500	232	500	500	157	346	216	11 - 26
500	315	<b>193 135 446</b>	17.000	232	500	500	157	337	216	11 - 26
560	315	<b>193 135 456</b>	16.100	232	500	500	157	327	216	11 - 26
630	315	<b>193 135 466</b>	15.950	232	500	500	157	312	216	11 - 33
710	315	<b>193 135 476</b>	14.800	232	500	500	157	297	216	11 - 33
800	315	<b>193 135 486</b>	14.300	232	500	500	157	287	216	11 - 33
900	315	<b>193 135 496</b>	13.800	232	500	500	157	281	216	11 - 33
1000	315	<b>193 135 506</b>	13.500	232	500	500	157	274	216	11 - 33



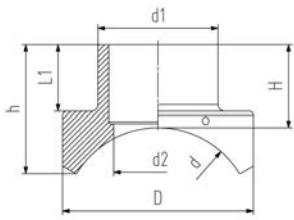
### Branch saddle topload outlet 315 - 500 mm

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- Angle adaptors (799.350.340) for fusion cable required
- Branch saddle installation only with installation set Topload TL500 (799.300.809)
- 4 mm pin connectors
- Spigot outlet for butt- and electrofusion
- Full pressure applicable - no derating factor



d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	D (mm)	L (mm)	L1 (mm)	h (mm)	H (mm)	SDR pipe
710	315	<b>193 135 676</b>	14.000	250	500	500	157	296	216	11 - 33
800	315	<b>193 135 686</b>	13.500	250	500	500	157	287	216	11 - 33
900	315	<b>193 135 696</b>	13.100	250	500	500	157	282	216	11 - 33
900	500	<b>193 135 698</b>	32.600	397	700	700	219	406	280	11 - 33
1000	315	<b>193 135 706</b>	12.800	250	500	500	157	274	216	11 - 33
1000	500	<b>193 135 708</b>	31.400	397	700	700	219	397	280	11 - 33
1200	315	<b>193 135 716</b>	12.300	250	500	500	157	267	216	11 - 33
1200	500	<b>193 135 718</b>	29.400	397	700	700	219	377	280	11 - 33
1400	315	<b>193 135 726</b>	11.900	250	500	500	157	257	216	11 - 33
1400	500	<b>193 135 728</b>	28.100	397	700	700	219	362	280	11 - 33

table continued on the next page



d (mm)	d1 (mm)	Code	Weight (kg)	d2 (mm)	D (mm)	L (mm)	L1 (mm)	h (mm)	H (mm)	SDR pipe
1600	315	<b>193 135 736</b>	11.700	250	500	500	157	252	216	11 - 33
1600	500	<b>193 135 738</b>	27.100	397	700	700	219	352	280	11 - 33
2000	315	<b>193 135 746</b>	11.300	250	500	500	157	246	216	11 - 33
2000	500	<b>193 135 748</b>	25.700	397	700	700	219	337	280	11 - 33

# Accessories & tools



## Cross connection branch saddle

- Enables the connection of two Branch Saddle as a cross
- Complete with screws, flat washers and nuts

d (mm)	Code	Weight (kg)
110 - 160	<b>193 280 880</b>	0.268
180 - 250	<b>193 280 881</b>	0.282



## Multiple use assembly tool branch saddle d140mm

- Only to be used with Branch Saddle d140mm
- Delivered as complete Kit including screws and belt

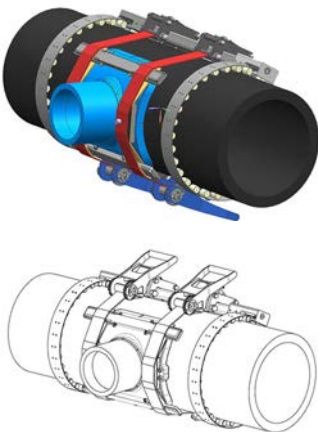
d (mm)	Code	Weight (kg)
140	<b>193 281 027</b>	0.724



## Clamping device topload 630

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm and branch fittings for dimensions d 280 mm – 630 mm.
- Scope of delivery: 1 base mounting clamp, 1 clamping attachment, 1 bracket, 2 clamping screws, 2 ratchet scraps, 1 transport box

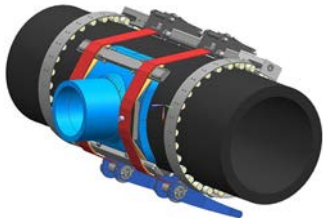
d-d (mm)	Code	Weight (kg)
280 - 630	<b>799 350 477</b>	28.400



## Installation set Topload TL 225

- Suitable for branch saddle d315-1000mm with spigot outlet d160/d225
- Use of set is mandatory for the installation of branch saddles
- Set includes frame with tension belts, peeling tool, clamp and transport box
- Patent pending

Code	Weight (kg)
<b>799 300 807</b>	48.000

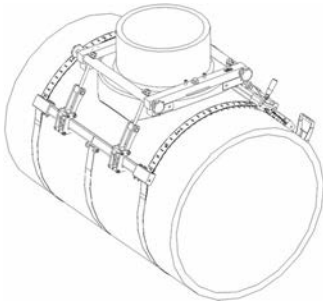


### Installation set Topload TL 500

- Suitable for branch saddle d450-2000mm with spigot outlet d500
- Use of set is mandatory for the installation of branch saddles
- Set includes frame with tension belts, peeling tool, clamp for outlet d315mm/500mm and transport box
- Patent pending

**Code Weight**  
(kg)

**799 300 809 124.000**



### Pressure Test Cap

- Enables pressure testing of branch saddles ELGEF Plus after fusion and before tapping the main pipe
- Suitable for branch saddle with spigot outlet (193435402- 748 and 193135202- 304)
- Recommended maximum test pressure at +20°C according DVS 2210-1 = 18 bar water (SDR11) / 11 bar water (SDR 17)
- Recommended test duration = 60 minutes
- Connecting thread for pressure test is female thread G 3/8"

d (mm)	Code	description	L (mm)	B (mm)	H (mm)
160 - 225	<b>799 199 287</b>	Suitable for branch saddle with spigot outlet d160 and d225mm and Tapping saddles Monobloc main dimension d63-160mm; Material: Aluminum; Scope of delivery: 1 x Pressure test cap, 1 x O-ring 25.07 x 2.62	26	36	39
315	<b>799 199 288</b>	Suitable for branch saddle with spigot outlet d315mm; Scope of delivery: 1 x pressure test cap, 1 x O-Ring, 1 x GEKA-plus hose nipple, 1 x GEKA-plus transition female thread G3/8", 1 x Transport box	310	310	320
500	<b>799 199 289</b>	Suitable for branch saddle with spigot outlet d500mm; Scope of delivery: 1 x pressure test cap, 1 x O-Ring, 1 x GEKA-plus hose nipple, 1 x GEKA-plus transition female thread G3/8", 1 x Transport box	465	465	400








### Accessories / single parts for Pressure test cap

- Suitable for Pressure test cap

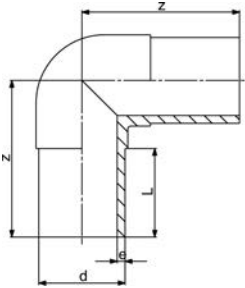
Code	description	L (mm)	B (mm)	H (mm)
<b>799 199 321</b>	1 x O-Ring for 799199288 d315	222	222	7
<b>799 199 322</b>	1 x O-Ring for 799199289 d500	380	380	7
<b>799 199 323</b>	1 x GEKA-plus transition female thread G 3/8"	55	55	35
<b>799 199 327</b>	1 x Transport box for 799199288 d315	310	310	320
<b>799 199 328</b>	1 x Transport box for 799199289 d500	465	465	400

# Monoline spigot fittings

Spigot fittings		Page
	Elbows	46
	Bends	50
	Tees	57
	Reducers	63
	End caps	66



# Elbows



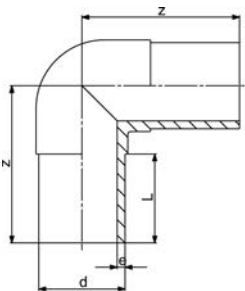
## Elbow 90°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Usable with all types of electrofusion couplers

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
20	701 485 220	0.027	75	52	3.0
25	701 485 221	0.037	80	52	3.0
32	701 485 222	0.056	85	54	3.0
40	701 485 223	0.095	95	57	3.7
50	701 485 224	0.159	105	63	4.6
63	701 485 225	0.275	115	65	5.8
75	701 485 226	0.413	130	72	6.8
90	701 485 227	0.704	150	81	8.2
110	701 485 228	1.145	165	86	10.0
125	701 485 229	1.609	180	93	11.4
140	701 485 230	1.950	200	120	12.7
160	701 485 231	3.100	210	103	14.6
180	701 485 232	4.319	232	107	16.4
200	701 485 233	5.733	253	117	18.2
225	701 485 234	7.729	270	122	20.5
250	701 485 235	10.512	292	130	22.7
280	753 100 922	15.059	320	140	25.4
315	753 100 923	21.960	370	150	28.6

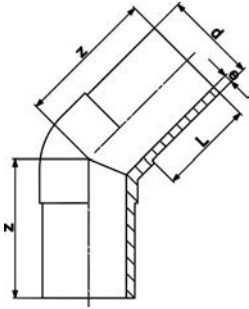
## Elbow 90°

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- Usable with all types of electrofusion couplers



d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
90	701 485 377	0.553	150	81	5.4
110	701 485 378	0.879	165	86	6.6
125	701 485 379	0.927	180	93	7.4
140	701 485 380	1.510	202	92	8.3
160	701 485 381	3.040	210	102	9.5
180	701 485 382	3.239	232	107	10.7
200	701 485 383	4.980	253	115	11.9
225	701 485 384	6.850	270	120	13.4
250	753 100 821	8.000	292	130	14.8
280	753 100 822	11.328	320	140	16.6
315	753 100 823	15.877	370	150	18.7

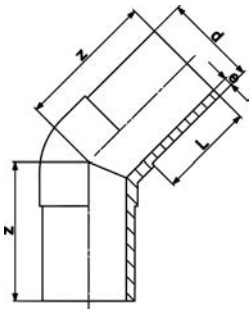
### Elbow 45°



- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Usable with all types of electrofusion couplers

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
20	701 485 200	0.026	70	52	3.0
25	701 485 201	0.035	75	52	3.0
32	701 485 202	0.050	80	54	3.0
40	701 485 203	0.082	85	57	3.7
50	701 485 204	0.137	90	63	4.6
63	701 485 205	0.300	95	65	5.8
75	701 485 206	0.346	105	72	6.8
90	701 485 207	0.578	120	81	8.2
110	701 485 208	0.931	130	86	10.0
125	701 485 209	1.310	140	92	11.4
140	753 151 016	1.796	164	120	12.7
160	701 485 211	2.448	162	102	14.6
180	701 485 212	3.283	186	107	16.4
200	701 485 213	4.371	185	116	18.2
225	701 485 214	6.013	200	123	20.5
250	701 485 370	8.541	220	130	22.7
280	753 150 922	10.285	230	140	25.4
315	753 150 923	14.124	250	150	28.6

### Elbow 45°



- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- Usable with all types of electrofusion couplers

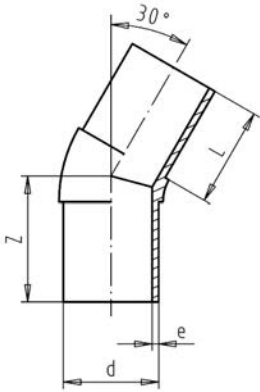
d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
90	701 485 367	0.450	120	81	5.4
110	701 485 368	0.900	130	86	6.6
125	701 485 369	0.980	140	92	7.4
140	753 150 816	1.259	164	120	8.3
160	701 485 371	1.784	162	102	9.5
180	701 485 372	3.060	170	107	10.7
200	701 485 373	4.100	186	116	11.9
225	701 485 374	4.368	205	123	13.4
250	753 150 821	6.012	217	130	14.8
280	753 150 822	7.489	230	140	16.6
315	753 150 823	10.123	250	150	18.7

### Elbow 30°



- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Usable with all types of electrofusion couplers

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
32	753 120 908	0.530	70	54	3.0
40	753 120 909	0.530	80	57	3.7
50	753 120 910	0.121	80	63	4.6
63	753 120 911	0.207	80	65	5.8
75	753 120 912	0.311	90	72	6.8
90	753 120 913	0.510	100	81	8.2
110	753 120 914	0.840	105	86	10.0
125	753 120 915	1.174	115	92	11.4
140	753 120 916	1.760	135	92	12.7
160	753 120 917	2.155	130	102	14.6
180	753 120 918	2.911	140	107	16.4
200	753 120 919	3.892	150	116	18.2
225	753 120 920	5.332	165	123	20.5
250	753 120 921	7.307	190	130	22.7
280	753 120 922	10.600	200	139	25.4
315	753 120 923	12.775	200	150	28.6

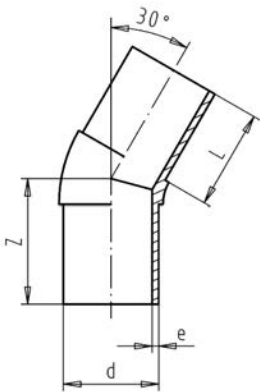


### Elbow 30°



- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- Usable with all types of electrofusion couplers

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
90	753 120 813	0.363	110	81	5.4
110	753 120 814	0.607	115	86	6.6
125	753 120 815	0.819	125	92	7.4
140	753 120 816	1.112	150	92	8.3
160	753 120 817	1.526	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	3.798	180	123	13.4
250	753 120 821	5.039	200	130	14.8
280	753 120 822	8.100	200	139	16.6
315	753 120 823	8.655	220	150	18.7

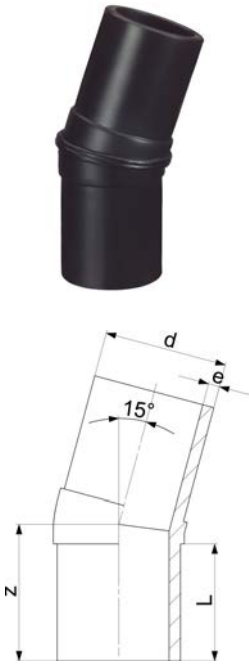




### Elbow 15°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Usable with all types of electrofusion couplers

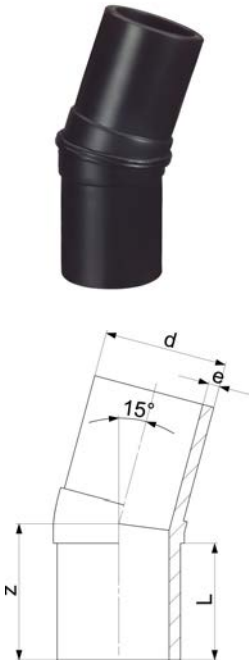
d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
32	753 141 008	0.051	70	54	3.0
40	753 141 009	0.082	80	57	3.7
50	753 141 010	0.118	80	63	4.6
63	753 141 011	0.200	80	65	5.8
75	753 141 012	0.290	90	72	6.8
90	753 141 013	0.479	100	81	8.2
110	753 141 014	0.785	105	86	10.0
125	753 141 015	1.063	115	92	11.4
140	753 141 016	1.600	135	92	12.7
160	753 141 017	2.170	130	102	14.6
180	753 141 018	2.653	140	107	16.4
200	753 141 019	3.438	150	116	18.2
225	753 141 020	4.765	165	123	20.5
250	753 141 021	8.300	190	130	22.7
280	753 141 022	8.322	200	139	25.4
315	753 141 023	11.292	200	150	28.6



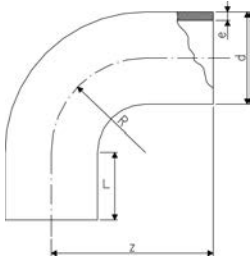
### Elbow 15°

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- Usable with all types of electrofusion couplers

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
90	753 140 813	0.337	100	81	5.4
110	753 140 814	0.551	105	86	6.6
125	753 140 815	0.728	115	92	7.4
140	753 140 816	0.370	135	92	8.3
160	753 140 817	1.364	130	102	9.5
180	753 140 818	2.040	140	107	10.7
200	753 140 819	2.371	150	116	11.9
225	753 140 820	3.335	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	7.528	200	150	18.7



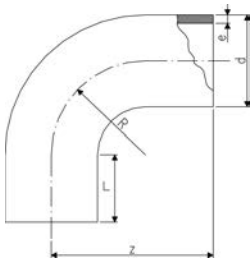
# Bends



## Bend 90°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- \* Made out of seamless pipe. This shall not be shortened.

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)	
32	753 001 008	0.042	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	0.280	130	63	63	5.8	
75	753 001 012	0.464	152	70	75	6.8	
90	753 001 013	0.530	168	79	90	8.2	
110	753 001 014	1.282	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	3.424	258	98	160	14.6	
180	753 001 018	5.000	290	105	180	16.4	
200	753 001 019	6.925	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	15.487	430	150	280	25.4	
315	753 001 023	23.950	470	150	315	28.6	
*	355	753 001 024	53.300	900	250	533	32.3
*	400	753 001 025	71.900	980	250	600	36.4
*	450	753 001 026	97.300	1070	250	675	40.9
*	500	753 001 027	134.000	1200	280	750	45.5
*	560	753 001 028	179.300	1290	280	840	50.9
*	630	753 001 029	243.200	1400	280	945	57.3
*	710	753 001 030	469.943	2200	570	1630	64.5
*	800	753 001 031	577.131	2200	480	1720	72.6

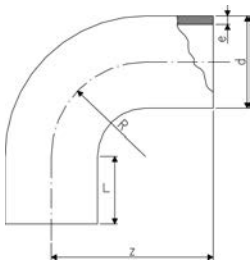


## Bend 90°

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- \* Made out of seamless pipe. This shall not be shortened.

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)	
90	753 000 813	0.520	168	79	90	5.4	
110	753 000 814	0.942	193	82	110	6.6	
125	753 000 815	1.300	216	87	125	7.4	
140	753 000 816	1.789	232	92	140	8.3	
160	753 000 817	2.410	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	6.414	350	120	225	13.4	
250	753 000 821	9.940	375	130	250	14.8	
280	753 000 822	13.795	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

table continued on the next page



	d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
*	560	<b>753 000 828</b>	116.000	1290	280	840	33.2
*	630	<b>753 000 829</b>	159.600	1400	280	945	37.4
*	710	<b>753 000 830</b>	317.382	2200	570	1630	42.1
*	800	<b>753 000 831</b>	389.859	2200	480	1720	47.4



### Bend 60°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Made out of seamless pipe. This shall not be shortened.

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
32	<b>753 071 008</b>	0.070	128	80	48	2.9
40	<b>753 071 009</b>	0.120	135	80	60	3.7
50	<b>753 071 010</b>	0.240	158	100	75	4.6
63	<b>753 071 011</b>	0.420	173	100	95	5.8
75	<b>753 071 012</b>	0.600	182	100	113	6.8
90	<b>753 071 013</b>	0.900	193	100	135	8.2
110	<b>753 071 014</b>	1.780	270	150	165	10.0
125	<b>753 071 015</b>	2.500	283	150	188	11.4
140	<b>753 071 016</b>	2.700	296	150	210	12.7
160	<b>753 071 017</b>	4.574	313	150	240	14.6
180	<b>753 071 018</b>	4.900	330	150	270	16.4
200	<b>753 071 019</b>	6.400	348	150	300	18.2
225	<b>753 071 020</b>	8.600	370	150	338	20.5
250	<b>753 071 021</b>	14.500	500	250	375	22.7
280	<b>753 071 022</b>	19.100	530	250	420	25.4
315	<b>753 071 023</b>	25.600	612	250	473	28.6
355	<b>753 071 024</b>	41.700	690	300	533	32.3
400	<b>753 071 025</b>	55.800	730	300	600	36.4
450	<b>753 071 026</b>	76.000	780	300	675	40.9
500	<b>753 071 027</b>	104.600	880	350	750	45.5
560	<b>753 071 028</b>	139.500	930	350	840	50.9
630	<b>753 071 029</b>	188.500	1000	350	945	57.3

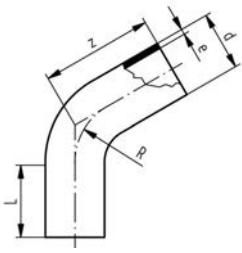


### Bend 60°

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- Made out of seamless pipe. This shall not be shortened.

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
90	<b>753 070 813</b>	0.600	193	100	135	5.4
110	<b>753 070 814</b>	1.280	270	150	165	6.6
125	<b>753 070 815</b>	1.300	283	150	187	7.4
140	<b>753 070 816</b>	1.800	296	150	210	8.3
160	<b>753 070 817</b>	3.160	313	150	240	9.5
180	<b>753 070 818</b>	3.190	330	150	270	10.7
200	<b>753 070 819</b>	4.200	348	150	300	11.9
225	<b>753 070 820</b>	5.600	370	150	337	13.4
250	<b>753 070 821</b>	9.250	500	250	375	14.8
280	<b>753 070 822</b>	15.000	530	250	420	16.6
315	<b>753 070 823</b>	19.500	612	250	472	18.7
355	<b>753 070 824</b>	30.100	690	300	532	21.1

table continued on the next page

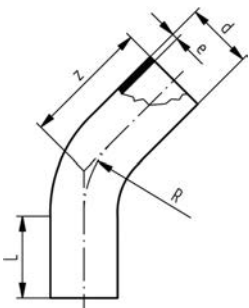


d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
400	<b>753 070 825</b>	38.200	730	300	600	23.7
450	<b>753 070 826</b>	53.700	780	300	675	26.7
500	<b>753 070 827</b>	73.900	880	350	750	29.7
560	<b>753 070 828</b>	98.200	930	350	840	33.2
630	<b>753 070 829</b>	132.300	1000	350	945	37.4



### Bend 45°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Made out of seamless pipe. This shall not be shortened.

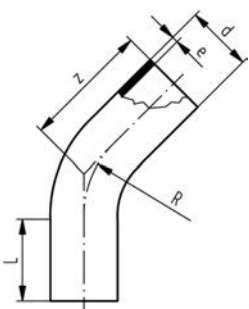


d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
32	<b>753 051 008</b>	0.077	120	80	48	2.9
40	<b>753 051 009</b>	0.120	120	80	60	3.7
50	<b>753 051 010</b>	0.240	149	100	75	4.6
63	<b>753 051 011</b>	0.360	161	100	95	5.8
75	<b>753 051 012</b>	0.560	168	100	113	6.8
90	<b>753 051 013</b>	0.760	177	100	135	8.2
110	<b>753 051 014</b>	1.700	243	150	165	10.0
125	<b>753 051 015</b>	2.186	253	150	188	11.4
140	<b>753 051 016</b>	2.800	262	150	210	12.7
160	<b>753 051 017</b>	3.800	274	160	240	14.6
180	<b>753 051 018</b>	5.140	287	150	270	16.4
200	<b>753 051 019</b>	7.058	299	150	300	18.2
225	<b>753 051 020</b>	7.400	315	150	338	20.5
250	<b>753 051 021</b>	13.000	440	250	375	22.7
280	<b>753 051 022</b>	22.000	460	250	420	25.4
315	<b>753 051 023</b>	24.930	535	250	473	28.6
355	<b>753 051 024</b>	39.500	620	300	533	32.3
400	<b>753 051 025</b>	48.500	650	300	600	36.4
450	<b>753 051 026</b>	69.800	680	300	675	40.9
500	<b>753 051 027</b>	96.300	760	350	750	45.5
560	<b>753 051 028</b>	129.800	800	350	840	50.9
630	<b>753 051 029</b>	174.000	870	350	945	57.3



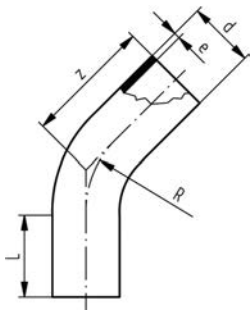
### Bend 45°

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- Made out of seamless pipe. This shall not be shortened.



d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
90	<b>753 050 813</b>	0.600	177	100	135	5.4
110	<b>753 050 814</b>	1.208	243	150	165	6.6
125	<b>753 050 815</b>	1.540	253	150	188	7.4
140	<b>753 050 816</b>	1.720	262	150	210	8.3
160	<b>753 050 817</b>	2.200	274	150	240	9.5
180	<b>753 050 818</b>	3.000	287	150	270	10.7
200	<b>753 050 819</b>	3.700	299	150	300	11.9
225	<b>753 050 820</b>	5.000	315	150	338	13.4
250	<b>753 050 821</b>	10.691	440	250	375	14.8
280	<b>753 050 822</b>	15.000	460	250	420	16.6
315	<b>753 050 823</b>	17.800	535	250	473	18.7
355	<b>753 050 824</b>	25.600	620	300	533	21.1

table continued on the next page

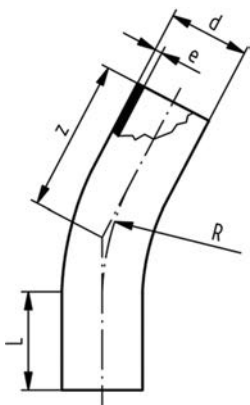


d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
400	<b>753 050 825</b>	36.600	650	300	600	23.7
450	<b>753 050 826</b>	45.300	680	300	675	26.7
500	<b>753 050 827</b>	62.400	760	350	750	29.7
560	<b>753 050 828</b>	81.900	800	350	840	33.2
630	<b>753 050 829</b>	197.000	870	350	945	37.4

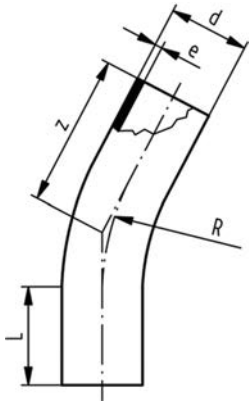


### Bend 30°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Made out of seamless pipe. This shall not be shortened.



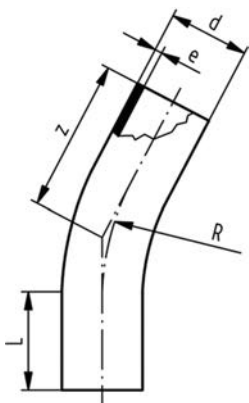
d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
32	<b>753 061 008</b>	0.077	113	80	48	2.9
40	<b>753 061 009</b>	0.120	116	80	60	3.7
50	<b>753 061 010</b>	0.200	140	100	75	4.6
63	<b>753 061 011</b>	0.400	150	100	95	5.8
75	<b>753 061 012</b>	0.520	155	100	113	6.8
90	<b>753 061 013</b>	0.760	160	100	135	8.2
110	<b>753 061 014</b>	1.689	219	150	165	10.0
125	<b>753 061 015</b>	2.096	225	150	188	11.4
140	<b>753 061 016</b>	2.200	231	150	210	12.7
160	<b>753 061 017</b>	3.650	239	150	240	14.6
180	<b>753 061 018</b>	4.782	247	150	270	16.4
200	<b>753 061 019</b>	5.777	255	150	300	18.2
225	<b>753 061 020</b>	6.300	266	150	338	20.5
250	<b>753 061 021</b>	13.100	385	250	375	22.7
280	<b>753 061 022</b>	16.300	400	250	420	25.4
315	<b>753 061 023</b>	21.850	460	250	473	28.6
355	<b>753 061 024</b>	34.900	540	300	533	32.3
400	<b>753 061 025</b>	45.900	560	300	600	36.4
450	<b>753 061 026</b>	60.200	580	300	675	40.9
500	<b>753 061 027</b>	83.300	630	350	750	45.5
560	<b>753 061 028</b>	108.600	680	350	840	50.9
630	<b>753 061 029</b>	148.300	730	350	945	57.3



### Bend 30°

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- Made out of seamless pipe. This shall not be shortened.

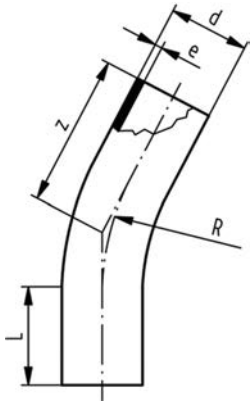
d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
90	753 060 813	0.500	160	100	135	5.4
110	753 060 814	1.060	219	150	165	6.6
125	753 060 815	1.100	225	150	188	7.4
140	753 060 816	1.720	231	150	210	8.3
160	753 060 817	2.565	239	150	240	9.5
180	753 060 818	3.389	247	150	270	10.7
200	753 060 819	4.213	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°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Made out of seamless pipe. This shall not be shortened.

d (mm)	Code	Weight (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	14.015	385	250	375	22.7
280	753 081 022	18.510	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



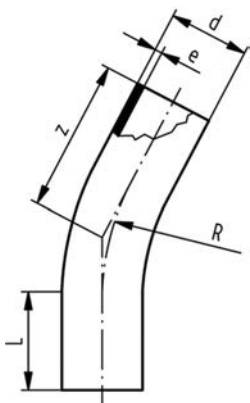
### Bend 22°

- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- Made out of seamless pipe. This shall not be shortened.

d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
90	753 080 813	0.500	160	100	135	5
110	753 080 814	1.060	219	150	165	7
125	753 080 815	1.100	225	150	188	7
140	753 080 816	1.720	231	150	210	8
160	753 080 817	1.900	239	150	240	10
180	753 080 818	3.318	247	150	270	11
200	753 080 819	3.200	255	150	300	12
225	753 080 820	5.431	266	150	338	13
250	753 080 821	9.904	385	250	375	15
280	753 080 822	12.800	400	250	420	17
315	753 080 823	14.144	460	250	473	19
355	753 080 824	22.700	540	300	533	21
400	753 080 825	29.800	560	300	600	24
450	753 080 826	39.100	580	300	675	27
500	753 080 827	54.000	650	350	750	30
560	753 080 828	70.300	680	350	840	33
630	753 080 829	95.800	730	350	945	37

### Bend 11°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Made out of seamless pipe. This shall not be shortened.

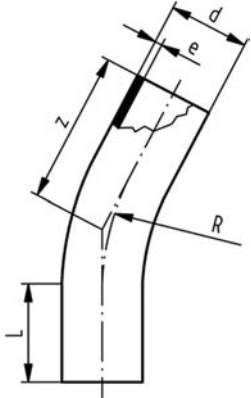


d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
32	753 091 008	0.077	113	80	48	3
40	753 091 009	0.120	116	80	60	4
50	753 091 010	0.200	140	100	75	5
63	753 091 011	0.400	150	100	95	6
75	753 091 012	0.520	155	100	113	7
90	753 091 013	0.760	160	100	135	8
110	753 091 014	1.500	219	150	165	10
125	753 091 015	2.000	225	150	188	11
140	753 091 016	2.200	231	150	210	13
160	753 091 017	3.300	239	150	240	15
180	753 091 018	3.700	247	150	270	16
200	753 091 019	4.750	255	150	300	18
225	753 091 020	7.773	266	150	338	21
250	753 091 021	13.100	385	250	375	23
280	753 091 022	16.300	400	250	420	25
315	753 091 023	21.845	460	250	473	29
355	753 091 024	34.900	540	300	533	32
400	753 091 025	45.900	560	300	600	36
450	753 091 026	60.200	580	300	675	41
500	753 091 027	83.300	650	350	750	46
560	753 091 028	108.600	680	350	840	51
630	753 091 029	148.300	730	350	945	57



### Bend 11°

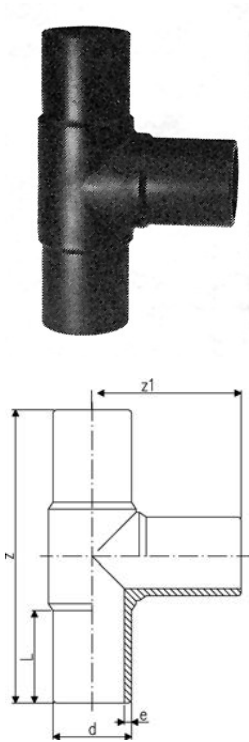
- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water
- Made out of seamless pipe. This shall not be shortened.



d (mm)	Code	Weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)
90	<b>753 090 813</b>	0.500	160	100	135	5
110	<b>753 090 814</b>	1.060	219	150	165	7
125	<b>753 090 815</b>	1.100	225	150	188	7
140	<b>753 090 816</b>	1.720	231	150	210	8
160	<b>753 090 817</b>	2.653	239	150	240	10
180	<b>753 090 818</b>	2.500	247	150	270	11
200	<b>753 090 819</b>	4.308	255	150	300	12
225	<b>753 090 820</b>	7.540	266	150	338	13
250	<b>753 090 821</b>	11.600	385	250	375	15
280	<b>753 090 822</b>	12.800	400	250	420	17
315	<b>753 090 823</b>	25.000	460	250	473	19
355	<b>753 090 824</b>	22.700	540	300	533	21
400	<b>753 090 825</b>	29.800	560	300	600	24
450	<b>753 090 826</b>	39.100	580	300	675	27
500	<b>753 090 827</b>	54.000	650	350	750	30
560	<b>753 090 828</b>	70.300	680	350	840	33
630	<b>753 090 829</b>	95.800	730	350	945	37



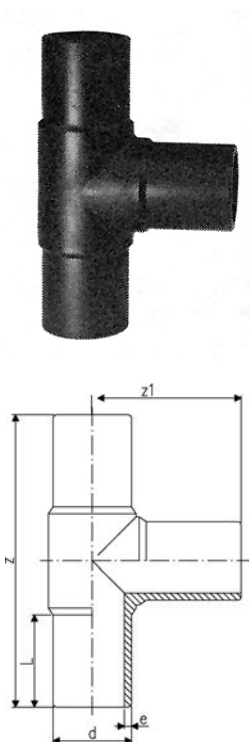
# Tees



## Tee 90°

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- \* No pressure reduction factor
- \* Segment welded and reinforced
- \* With welded pipes

d (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	e (mm)
20	701 485 240	0.038	150	75	52	3.0
25	701 485 241	0.054	160	80	52	3.0
32	701 485 242	0.073	170	85	54	3.0
40	701 485 243	0.129	190	95	57	3.7
50	701 485 244	0.217	210	105	63	4.6
63	701 485 245	0.420	230	115	65	5.8
75	701 485 246	0.604	264	132	72	6.8
90	701 485 247	1.031	300	150	81	8.2
110	701 485 248	1.616	330	165	86	10.0
125	701 485 249	2.386	366	183	92	11.4
140	701 485 250	3.200	396	196	92	12.7
160	701 485 251	4.323	420	210	102	14.6
180	701 485 252	6.030	460	230	107	16.4
200	701 485 253	8.500	500	250	117	18.2
225	701 485 254	11.500	540	270	122	20.5
250	701 485 255	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	753 200 024	38.900	820	410	170	32.3
400	753 200 025	53.400	900	450	190	36.4
450	753 200 026	73.400	980	490	200	40.9
500	753 200 027	98.500	1070	535	220	45.5
*	753 200 028	142.000	1200	600	245	50.9
*	753 200 029	205.500	1300	650	265	57.3

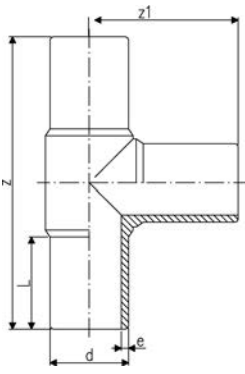


## Tee 90°

- PE 100 SDR 17 / 17,6 (ISO S8 / S8,3)
- 5 bar Gas / 10 bar Water
- \* With welded pipes
- \* No pressure reduction factor
- \* Segment welded and reinforced

d (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	e (mm)
90	701 485 387	0.780	300	150	80	5.4
110	701 485 388	1.440	330	165	86	6.6
125	701 485 389	2.050	366	185	92	7.4
140	701 485 390	2.450	396	196	92	8.3
160	701 485 391	3.208	428	214	104	9.5
180	701 485 392	5.450	460	230	105	10.7
200	701 485 393	5.910	500	250	115	11.9
225	701 485 394	10.120	540	270	122	13.4
250	753 200 821	10.000	575	288	130	14.8
280	753 200 802	13.350	615	308	139	16.6
315	753 200 803	17.985	695	346	150	18.7
355	753 200 124	26.100	820	410	170	21.1
400	753 200 125	35.700	900	450	190	23.7

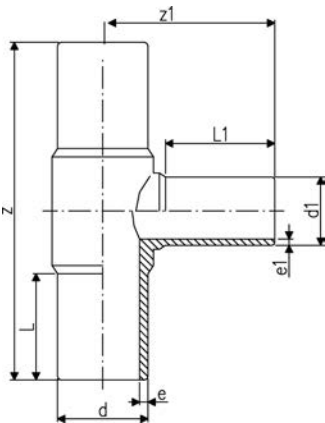
table continued on the next page



	d (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	e (mm)
	450	<b>753 200 126</b>	49.400	980	490	200	26.7
	500	<b>753 200 127</b>	66.100	1070	535	220	29.7
*	560	<b>753 200 128</b>	139.000	1200	600	245	50.9
*	630	<b>753 200 129</b>	132.000	1300	650	265	57.3

### Tee 90°, reduced, moulded

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



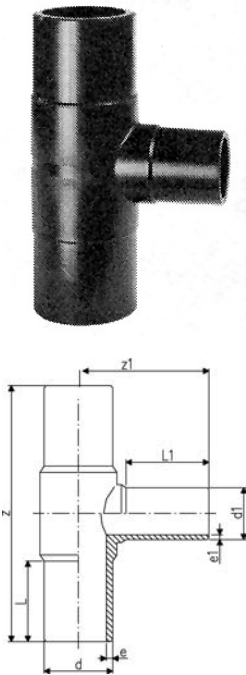
d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
63	32	<b>753 201 022</b>	0.300	218	86	65	47		3.0
63	40	<b>753 201 026</b>	0.312	230	107	67	58		3.7
63	50	<b>701 585 040</b>	0.300	218	100	65	59	5,8	4,6
75	32	<b>701 585 041</b>	0.455	256	108	70	46	6,9	3,0
75	50	<b>701 585 042</b>	0.485	253	108	70	56	6,9	4,6
75	63	<b>701 585 043</b>	0.556	255	117	70	63	6,9	5,8
90	50	<b>753 201 027</b>	0.794	280	117	79	55	8,2	4,6
90	63	<b>701 585 045</b>	0.775	269	136	79	64	8,2	5,8
90	75	<b>701 585 046</b>	0.800	272	138	73	70	8,2	6,9
110	63	<b>701 585 047</b>	1.267	309	156	84	65	10,0	5,8
110	75	<b>701 585 048</b>	1.235	309	151	82	70	10,0	6,9
110	90	<b>701 585 049</b>	1.275	321	162	85	79	10,0	8,2
125	90	<b>701 585 050</b>	1.722	335	170	90	83	11,4	8,2
125	110	<b>701 485 340</b>	2.389	341	170	88	82	11,4	10,0
160	63	<b>701 485 516</b>	2.680	340	176	98	65	14,6	5,8
160	75	<b>701 585 052</b>	2.717	340	180	98	74	14,6	6,9
160	90	<b>701 485 517</b>	3.775	410	180	98	79	14,6	8,2
160	110	<b>701 485 342</b>	4.060	420	265	98	82	14,6	10,0
180	90	<b>701 585 053</b>	4.406	420	202	136	98	16,4	8,2
180	110	<b>701 585 054</b>	4.379	420	0	0	0	16,4	10,0
180	160	<b>701 585 055</b>	4.379	411	205	102	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>701 585 057</b>	9.730	503	215	120	81	18,2	8,2
200	110	<b>701 585 058</b>	9.730	503	218	120	84	18,2	10,0
200	160	<b>701 585 059</b>	9.730	503	236	120	101	18,2	14,6
225	75	<b>701 585 060</b>	6.500	441	227	119	75	20,5	6,9
225	90	<b>701 485 519</b>	9.815	441	225	119	79	20,5	8,2
225	110	<b>701 485 520</b>	9.780	441	237	118	83	20,5	10,0
225	160	<b>701 485 349</b>	10.220	540	320	120	106	20,5	14,6
225	180	<b>701 585 061</b>	9.375	543	277	132	132	20,5	16,4
250	110	<b>701 585 062</b>	11.878	586	245	132	85	22,7	10,0
250	160	<b>701 585 063</b>	9.730	586	264	132	101	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>	22.998	695	296	150	102	28,6	14,6
315	225	<b>753 201 053</b>	20.011	650	335	170	145	28,6	20,5
315	250	<b>753 201 054</b>	24.243	695	325	150	130	28,6	22,7

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

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



d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
25	20	753 201 002	0.053	160		52	52	3.0	3,0
32	20	753 201 003	0.094	170	105	54	52	3.0	3,0
32	25	753 201 004	0.098	170	110	54	52	3.0	3,0
40	20	701 485 321	0.130	190	120	57	52	3.7	3,0
40	25	701 485 324	0.140	190	120	57	52	3.7	3,0
40	32	753 201 070	0.160	190	120	57	52	3.7	3,0
50	20	701 485 325	0.210	210	140	63	52	4.6	3,0
50	25	701 485 326	0.220	210	130	63	52	4.6	3,0
50	32	701 485 327	0.230	210	130	63	53	4.6	3,0
50	40	753 201 081	0.224	210	130	63	57	4.6	3,7
63	32	701 485 328	0.378	230	145	65	53	5.8	3,0
63	40	701 485 329	0.700	230	145	65	57	5.8	3,7
75	40	753 201 084	0.603	264	180	72	57	6.8	3,7
125	63	753 201 085	2.359	366	225	92	61	11.4	5,8
125	75	701 485 338	2.453	366	225	92	72	11.4	6,9
140	75	753 201 087	3.038	396	230	92	70	12.7	6,8
140	90	753 201 089	3.092	396	235	92	79	12.7	8,2
140	110	753 201 090	3.208	396	240	92	82	12.7	10,0
140	125	753 201 091	4.170	396	240	92	90	12.7	11,4
160	125	701 485 343	4.465	420	265	102	92	14.6	11,4
160	140	753 201 093	5.895	420	270	102	96	14.6	12,7
180	125	701 485 344	6.480	460	285	107	92	16.4	11,4
180	140	753 201 095	6.317	460	295	107	110	16.4	12,7
200	125	701 485 346	8.150	500	295	117	92	18.2	11,4
200	140	753 201 097	10.570	500	310	117	110	18.2	12,7
200	180	753 201 098	9.031	500	310	117	110	18.2	16,4
225	125	701 485 348	10.900	540	320	122	92	20.5	11,4
225	140	753 201 100	14.574	540	335	122	110	20.5	12,7
225	200	753 201 101	14.925	540	340	122	117	20.5	18,2
250	180	753 201 102	14.327	576	350	130	105	22.7	16,4
250	200	753 201 103	19.220	576	360	130	112	22.7	18,2
250	225	753 201 104	15.240	576	390	130	120	22.7	20,5
280	200	753 201 105	24.520	616	410	139	112	25.4	18,2
280	225	753 201 106	21.755	616	420	139	120	25.4	20,5
280	250	753 201 107	21.055	616	420	139	130	25.4	22,7
315	200	753 201 108	33.672	690	470	150	134	28.6	18,2
315	280	753 201 109	34.950	690	480	150	139	28.6	25,4
355	250	753 201 110	48.900	818	530	165	130	32.3	22,7
355	280	753 201 111	49.300	818	480	165	139	32.3	25,4
355	315	753 201 112	49.690	818	480	165	150	32.3	28,6
400	280	753 201 113	52.915	910	530	180	139	36.4	25,4
400	315	753 201 114	53.625	910	580	180	150	36.4	28,6
400	355	753 201 115	54.075	910	675	180	165	36.4	32,3



### Tee 90°, reduced, moulded

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

d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
90	50	753 201 827	0.630	275	117	79	55	5.4	3.0
90	63	753 200 829	0.560	275	123	79	63	5.4	3.8
90	75	701 585 542	0.593	286	132	80	75	5.4	4.5
110	63	753 200 828	1.010	318	147	82	63	6.6	3.8
110	75	701 585 544	0.882	310	155	82	70	6.6	4.5
110	90	753 200 832	0.941	318	158	82	79	6.6	5.4
125	110	701 585 546	1.385	335	170	88	82	7.4	6.6
160	63	701 585 547	2.578	340	175	98	64	9.5	3.8
160	75	701 585 548	1.960	340	182	98	75	9.5	4.5
160	90	753 200 836	1.972	410	188	98	79	9.5	5.4
160	110	753 200 837	2.716	410	195	98	82	9.5	6.6
180	90	701 585 551	3.218	394	200	134	97	10.7	5.4
180	160	701 585 552	3.539	412	207	102	92	10.7	10.7
200	63	753 201 873	6.800	500	190	122	63	11.9	3.8
200	90	753 201 874	6.900	500	207	122	79	11.9	5.4
200	110	753 201 875	5.097	500	215	122	82	11.9	6.6
200	160	753 201 876	7.400	500	234	122	98	11.9	9.5
225	75	753 200 839	7.128	555	277	120	70	13.4	4.5
225	90	753 200 840	4.732	555	226	127	80	13.4	5.4
225	110	753 200 841	4.700	555	235	127	82	13.4	6.6
225	160	753 200 842	5.922	555	253	127	98	13.4	9.5
225	180	701 585 561	7.211	553	284	132	135	13.4	13.4
250	110	753 201 878	8.185	575	242	130	82	14.8	6.6
250	160	753 201 879	9.800	575	261	130	98	14.8	9.5
315	110	753 200 851	15.621	695	277	150	82	18.7	6.6
315	160	753 200 852	12.200	695	296	150	102	18.7	9.5
315	225	753 200 853	14.869	650	335	170	145	18.7	13.4
315	250	753 200 854	15.500	695	325	150	130	18.7	14.8

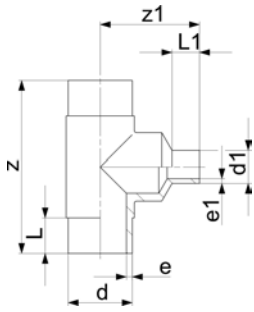
### Tee 90°, reduced, with welded reducer

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



d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
125	63	753 200 801	1.752	366	215	92	61	7.4	3.8
125	75	701 485 435	1.843	366	235	92	72	7.4	4.5
125	90	701 485 436	1.770	366	235	92	80	7.4	5.4
140	75	753 200 812	2.820	396	240	92	70	8.3	4.5
140	90	753 200 822	2.211	396	240	92	78	8.3	5.4
140	110	753 200 823	2.266	396	235	92	82	8.3	6.6
140	125	753 200 824	2.317	396	240	92	87	8.3	7.4
160	125	701 485 439	4.110	428	265	104	90	9.5	7.4
160	140	753 200 826	3.416	428	280	104	96	9.5	8.3
180	110	753 200 827	4.410	460	285	105	92	10.7	6.6
180	125	701 485 440	5.500	460	285	105	90	10.7	10.7
180	140	753 200 846	4.483	460	305	105	110	10.7	8.3
200	125	701 485 447	5.872	500	295	117	92	11.9	11.9
200	140	753 200 848	7.200	500	315	115	110	11.9	8.3
200	180	753 200 849	6.900	500	315	115	110	11.9	10.7
225	125	701 485 443	10.160	270	320	122	92	13.4	13.4
225	200	753 200 856	9.064	540	335	122	115	13.4	11.9
225	140	753 200 855	8.780	540	345	122	110	13.4	8.3
250	180	753 200 857	15.000	576	340	130	105	14.8	10.7
250	200	753 200 858	15.440	576	350	130	112	14.8	11.9

table continued on the next page

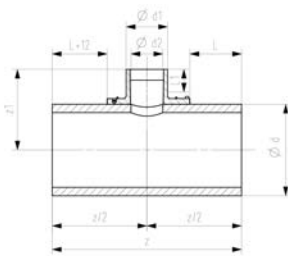


d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
250	225	<b>753 200 859</b>	15.620	576	370	130	120	14.8	13.4
280	200	<b>753 200 860</b>	19.200	616	400	139	112	16.6	11.9
280	225	<b>753 200 861</b>	19.500	616	400	139	120	16.6	13.4
280	250	<b>753 200 862</b>	20.120	616	400	139	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



### Tee 90° reduced, with welded saddle PE100 SDR11

- 10 bar Gas / 16 bar Water
- Long spigot version



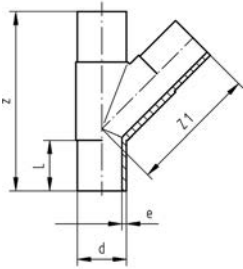
d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	L1 (mm)	d2 (mm)
315	225	<b>753 201 404</b>	22.570	702	318	168	127	172
355	90	<b>753 201 356</b>	27.729	818	410	279	81	70
355	110	<b>753 201 357</b>	28.204	818	410	279	86	90
355	125	<b>753 201 358</b>	28.820	818	410	279	92	90
355	160	<b>753 201 412</b>	26.450	732	315	205	110	123
355	225	<b>753 201 414</b>	28.500	732	338	183	127	172
400	90	<b>753 201 359</b>	38.213	910	455	325	81	70
400	110	<b>753 201 360</b>	38.763	910	455	325	86	90
400	125	<b>753 201 361</b>	39.393	910	455	325	92	90
400	160	<b>753 201 422</b>	34.150	762	337	220	110	123
400	225	<b>753 201 424</b>	36.170	762	360	198	127	172
450	90	<b>753 201 362</b>	50.936	970	485	355	81	70
450	110	<b>753 201 363</b>	51.516	970	485	355	86	90
450	125	<b>753 201 364</b>	52.173	970	485	355	92	90
450	160	<b>753 201 432</b>	44.420	792	362	235	110	123
450	225	<b>753 201 434</b>	46.440	792	385	213	127	172
500	90	<b>753 201 365</b>	68.151	1060	530	400	81	70
500	110	<b>753 201 366</b>	68.774	1060	530	400	86	90
500	125	<b>753 201 367</b>	69.472	1060	530	400	92	90
500	160	<b>753 201 442</b>	66.510	980	387	329	110	123
500	225	<b>753 201 444</b>	68.450	980	410	307	127	172
560	90	<b>753 201 368</b>	120.536	1510	755	625	81	70
560	110	<b>753 201 369</b>	121.384	1510	755	625	86	90
560	125	<b>753 201 370</b>	122.278	1510	755	625	92	90
560	160	<b>753 201 452</b>	85.020	1010	417	344	110	123
560	225	<b>753 201 454</b>	86.970	1010	440	322	127	172
630	90	<b>753 201 371</b>	163.834	1630	815	685	81	70
630	110	<b>753 201 372</b>	164.742	1630	815	685	86	90
630	125	<b>753 201 373</b>	165.688	1630	815	685	92	90
630	160	<b>753 201 462</b>	111.120	1050	452	364	110	123
630	225	<b>753 201 464</b>	113.250	1050	475	342	127	172



### Tee 45° equal

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

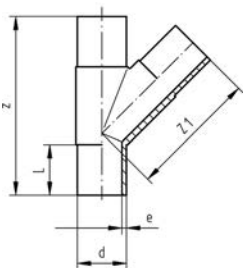
d (mm)	Code	Weight (kg)	z (mm)	z1 (mm)	L (mm)	e (mm)
50	753 251 010	0.300	218	139	56	4.6
63	753 251 011	0.440	252	156	65	6.2
75	753 251 012	0.800	301	190	70	6.8
90	753 251 013	1.373	368	234	79	8.2
110	753 251 014	1.800	395	260	82	10.0



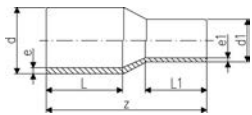
### Tee 45° equal

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

d (mm)	Code	Weight (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



# Reducers

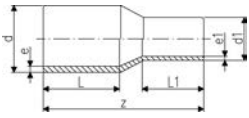


## Reducer

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

d	d1	Code	Weight	z	L	L1	e	e1
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)
25	20	<b>701 485 280</b>	0.022	115	53	52	3.0	30
32	20	<b>701 485 281</b>	0.027	122	55	53	3.0	30
32	25	<b>701 485 282</b>	0.024	122	55	53	3.0	30
40	20	<b>701 485 283</b>	0.040	127	56	50	3.7	30
40	25	<b>701 485 284</b>	0.043	128	55	50	3.7	30
40	32	<b>701 485 285</b>	0.046	128	55	52	3.7	30
50	20	<b>701 485 286</b>	0.067	147	62	50	4.6	30
50	25	<b>701 485 287</b>	0.068	139	62	50	4.6	30
50	32	<b>701 485 288</b>	0.071	140	62	54	4.6	30
50	40	<b>701 485 289</b>	0.083	138	62	55	4.6	37
63	32	<b>701 485 290</b>	0.109	150	65	53	5.8	30
63	40	<b>701 485 291</b>	0.130	150	65	57	5.8	37
63	50	<b>701 485 292</b>	0.130	150	65	62	5.8	46
75	40	<b>701 485 293</b>	0.178	170	72	51	6.8	37
75	50	<b>701 485 294</b>	0.191	170	72	65	6.8	46
75	63	<b>701 485 295</b>	0.216	170	72	65	6.8	58
90	50	<b>701 485 296</b>	0.291	190	81	61	8.2	46
90	63	<b>701 485 297</b>	0.317	190	81	65	8.2	58
90	75	<b>701 485 298</b>	0.330	190	81	72	8.2	68
110	63	<b>701 485 299</b>	0.487	205	85	65	10.0	58
110	75	<b>701 485 300</b>	0.497	205	84	72	10.0	68
110	90	<b>701 485 301</b>	0.557	205	85	81	10.0	82
125	63	<b>701 585 100</b>	0.579	214	88	65	11.4	58
125	75	<b>701 485 302</b>	0.668	210	89	72	11.4	68
125	90	<b>701 485 303</b>	0.673	211	89	81	11.4	82
125	110	<b>701 485 304</b>	0.786	211	90	84	11.4	100
140	75	<b>753 901 086</b>	0.910	237	113	77	12.7	68
140	90	<b>753 901 087</b>	0.954	237	114	86	12.7	82
140	110	<b>701 585 103</b>	0.820	232	104	93	12.7	100
140	125	<b>701 585 125</b>	0.988	232	102	100	12.7	114
160	90	<b>701 585 104</b>	1.164	244	100	81	14.6	82
160	110	<b>701 485 305</b>	1.298	242	100	85	14.6	100
160	125	<b>701 485 306</b>	1.403	240	100	89	14.6	114
160	140	<b>753 901 032</b>	1.522	255	110	104	14.6	127
180	90	<b>753 901 073</b>	1.507	245	105	81	16.4	82
180	110	<b>753 901 074</b>	1.833	277	124	94	16.4	100
180	125	<b>701 485 307</b>	1.720	258	108	92	16.4	114
180	140	<b>753 901 075</b>	1.976	278	124	113	16.4	127
180	160	<b>701 485 308</b>	1.980	255	107	102	16.4	146
200	140	<b>753 901 066</b>	2.326	282	123	114	18.2	127
200	160	<b>701 485 309</b>	2.435	252	104	100	18.2	146
200	180	<b>701 485 310</b>	2.681	279	124	120	18.2	164
225	140	<b>753 901 067</b>	2.900	295	132	115	20.5	127
225	160	<b>701 485 311</b>	2.891	278	120	98	20.5	146
225	180	<b>701 485 312</b>	3.268	297	128	120	20.5	164
225	200	<b>701 485 313</b>	3.530	280	124	117	20.5	182
250	160	<b>701 485 278</b>	2.385	309	150	97	22.7	146
250	180	<b>753 901 068</b>	4.299	312	150	106	22.7	164
250	200	<b>701 485 279</b>	2.385	327	155	115	22.7	182
250	225	<b>753 901 002</b>	2.385	332	130	120	22.7	205
280	200	<b>753 901 098</b>	6.850	347	140	115	25.4	182
280	225	<b>753 901 099</b>	6.112	340	140	122	25.4	205
280	250	<b>753 901 003</b>	2.385	320	137	133	25.4	227
315	200	<b>701 585 115</b>	2.385	375	170	128	28.6	182
315	225	<b>753 901 097</b>	7.790	375	150	123	28.6	205

table continued on the next page

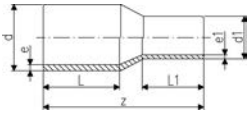


d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
315	250	<b>753 901 005</b>	8.360	375	150	132	28.6	227
315	280	<b>753 901 012</b>	8.800	375	150	144	28.6	254
355	250	<b>753 901 013</b>	9.100	390	165	130	32.3	227
355	280	<b>753 901 014</b>	9.500	390	165	139	32.3	254
355	315	<b>753 901 015</b>	9.900	390	165	150	32.3	286
400	280	<b>753 901 016</b>	10.420	415	180	139	36.4	254
400	315	<b>753 901 017</b>	11.130	415	180	150	36.4	286
400	355	<b>753 901 018</b>	11.600	420	180	165	36.4	323
450	280	<b>753 901 019</b>	16.200	389	195	139	40.9	254
450	315	<b>753 901 020</b>	16.700	390	195	150	40.9	286
450	355	<b>753 901 022</b>	17.500	393	195	164	40.9	323
450	400	<b>753 901 024</b>	18.500	395	195	179	40.9	364
500	315	<b>753 901 025</b>	21.900	422	212	150	45.5	286
500	355	<b>753 901 026</b>	22.600	424	212	164	45.5	323
500	400	<b>753 901 027</b>	23.600	426	212	179	45.5	364
500	450	<b>753 901 029</b>	25.100	428	212	195	45.5	409
560	355	<b>753 901 030</b>	30.100	459	230	164	50.9	323
560	400	<b>753 901 039</b>	31.000	461	230	179	50.9	364
560	450	<b>753 901 040</b>	32.400	463	230	195	50.9	409
560	500	<b>753 901 043</b>	34.100	466	230	212	50.9	455
630	400	<b>753 901 044</b>	41.900	502	250	179	57.3	364
630	450	<b>753 901 045</b>	43.100	503	250	195	57.3	409
630	500	<b>753 901 049</b>	44.700	506	250	212	57.3	455
630	560	<b>753 901 050</b>	46.800	506	250	230	57.3	509



### Reducer

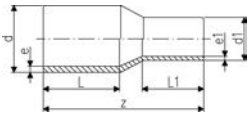
- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water



d (mm)	d1 (mm)	Code	Weight (kg)	z (mm)	L (mm)	L1 (mm)	e (mm)	e1 (mm)
90	63	<b>753 900 872</b>	0.224	182	79	70	5.4	3,8
90	75	<b>753 900 870</b>	0.234	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>701 485 411</b>	0.650	205	85	80	6.6	5,4
125	63	<b>753 900 882</b>	0.610	200	87	63	7.4	3,8
125	90	<b>701 485 413</b>	0.504	215	90	80	7.4	5,4
125	110	<b>701 485 414</b>	0.574	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>	0.642	230	112	79	8.3	5,4
140	110	<b>753 900 884</b>	0.715	230	112	82	8.3	6,6
140	125	<b>701 585 629</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>701 485 415</b>	0.898	245	100	85	9.5	6,6
160	125	<b>701 485 416</b>	0.956	245	100	90	9.5	7,4
160	140	<b>753 900 831</b>	0.995	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>	1.165	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>701 485 418</b>	1.401	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>701 485 419</b>	1.661	265	115	100	11.9	9,5
200	180	<b>701 485 420</b>	2.580	265	115	105	11.9	10,7
225	140	<b>753 900 867</b>	2.021	280	120	100	13.4	8,3
225	160	<b>701 485 421</b>	2.025	280	120	100	13.4	9,5
225	180	<b>701 485 422</b>	2.199	280	120	105	13.4	10,7
225	200	<b>701 485 423</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

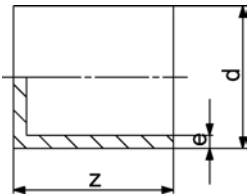
table continued on the next page





<b>d</b> (mm)	<b>d1</b> (mm)	<b>Code</b>	<b>Weight</b> (kg)	<b>z</b> (mm)	<b>L</b> (mm)	<b>L1</b> (mm)	<b>e</b> (mm)	<b>e1</b> (mm)
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>	4.062	335	140	120	16.6	13,4
280	250	<b>753 900 803</b>	4.352	340	140	130	16.6	14,8
315	200	<b>701 585 618</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>	7.082	390	165	130	21.1	14,8
355	280	<b>753 900 809</b>	6.728	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>	9.949	415	180	150	23.7	18,7
400	355	<b>753 900 813</b>	9.620	420	180	165	23.7	21,1
450	280	<b>753 900 814</b>	11.500	389	195	140	26.7	16,6
450	315	<b>753 900 815</b>	11.805	390	195	150	26.7	18,7
450	355	<b>753 900 816</b>	11.900	393	195	164	26.7	21,1
450	400	<b>753 900 817</b>	12.964	395	195	179	26.7	23,7
500	315	<b>753 900 818</b>	15.500	422	212	150	29.7	18,7
500	355	<b>753 900 819</b>	15.700	424	212	164	29.7	21,1
500	400	<b>753 900 820</b>	16.200	426	212	179	29.7	23,7
500	450	<b>753 900 821</b>	17.000	428	212	195	29.7	26,7
560	355	<b>753 900 822</b>	21.400	459	230	164	33.2	21,1
560	400	<b>753 900 823</b>	21.700	461	230	179	33.2	23,7
560	450	<b>753 900 824</b>	22.300	463	230	195	33.2	26,7
560	500	<b>753 900 825</b>	23.200	466	230	212	33.2	29,7
630	400	<b>753 900 826</b>	29.700	502	250	179	37.4	23,7
630	450	<b>753 900 827</b>	30.100	503	250	195	37.4	26,7
630	500	<b>753 900 828</b>	30.800	506	250	212	37.4	29,7
630	560	<b>753 900 829</b>	31.900	506	250	230	37.4	33,3

# End caps



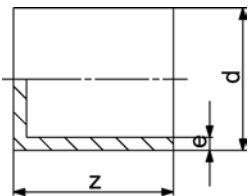
## End cap type L

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

### Note:

\* Fabricated fitting made from pipe

	d (mm)	Code	Weight (kg)	e (mm)	L (mm)	z (mm)
	20	701 485 260	0.009	3.0		52
	25	701 485 261	0.013	3.0		52
	32	701 485 262	0.017	3.0		54
	40	701 485 263	0.031	3.7		57
	50	701 485 264	0.050	4.6		63
	63	701 485 265	0.086	5.8		65
	75	701 485 266	0.145	6.8		80
	90	701 485 267	0.238	8.2		90
	110	701 485 268	0.376	10.0		98
	125	701 485 269	0.523	11.4		105
	140	753 961 016	0.727	12.7	92	136
	160	701 485 271	1.035	14.6		120
	180	701 485 272	1.369	16.4		128
	200	701 485 273	1.839	18.2		138
	225	701 485 274	2.532	20.5		148
	250	701 485 275	3.927	22.7		205
	280	753 960 922	5.045	25.4	139	235
	315	753 960 923	6.861	28.6	150	255
	355	753 960 924	9.780	32.3	165	280
	400	753 960 925	13.370	36.4	180	310
	450	753 960 926	20.800	40.9	195	275
	500	753 960 927	28.400	45.5	212	297
	560	753 960 928	39.100	50.9	230	325
*	630	753 960 929	59.700	57.3	250	355



## End cap

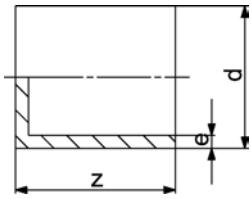
- PE 100 SDR 17 (ISO S8)
- 5 bar Gas / 10 bar Water

### Note:

\* Fabricated fitting made from pipe




	d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
	50	753 960 810	0.036	70	55	3.0
	63	753 960 811	0.058	82	63	3.8
	75	753 960 812	0.105	92	70	4.5
	90	701 485 397	0.220	90		5.2
	110	701 485 398	0.350	98		6.3
	125	701 485 399	0.520	105		7.1
	140	753 960 816	0.481	136	92	8.3
	160	701 485 401	0.928	120		9.1
	180	701 485 402	1.242	128		10.3
	200	701 485 403	1.675	138		11.4
	225	701 485 404	2.287	148		12.8
	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	9.347	310	180	23.7

table continued on the next page



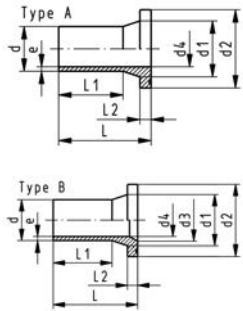
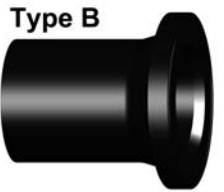
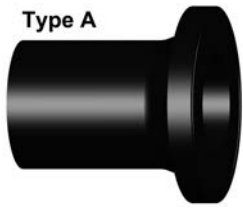
	<b>d</b> (mm)	<b>Code</b>	<b>Weight</b> (kg)	<b>z</b> (mm)	<b>L</b> (mm)	<b>e</b> (mm)
*	450	<b>753 960 826</b>	17.798	265	195	26.7
*	500	<b>753 960 827</b>	21.400	287	212	29.7
*	560	<b>753 960 828</b>	29.400	310	230	33.2
*	630	<b>753 960 829</b>	41.400	340	250	37.4

# Monoline flanged connections

Flanged connections	Page
	Flange adaptors 69
	Backing flanges 73
	Gaskets 77



# Flange adaptors



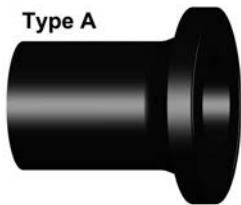
## Flange adaptor LS PE100 SDR11

Combined jointing face:  
Flat and serrated

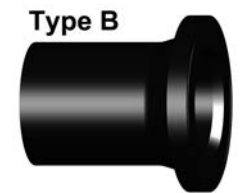
### Model:

- Long spigot
- Material: PE100
- According to ISO 1855-2 (Gas)
- For butt-, IR Plus® and electrofusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Up to d280, suitable for butterfly valve type Type 037/038/039
- Up to d315, suitable for butterfly valve type 567/578
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Gasket d710-d1000: flat gasket EPDM No. 48 40 03
- Type A without chamfer, Type B with chamfer
- 10 bar Gas / 16 bar Water

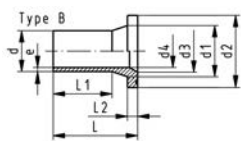
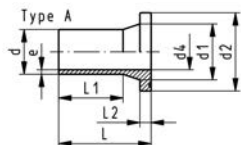
d (mm)	DN (mm)	Code	Weight (kg)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type
20	15	753 800 031	0.060	27	45		16	85.0	41.0	7	3	
25	20	753 800 032	0.041	33	58		20	90.5	62.0	9	3	
32	25	753 800 008	0.056	40	68		26	91.5	61.0	10	3	A
40	32	753 800 009	0.081	50	78		32	94.5	61.5	11	4	A
50	40	753 800 010	0.119	61	88		40	90.0	62.0	12	5	A
63	50	701 490 011	0.194	75	102		51	98.0	69.0	14	6	A
75	65	701 490 012	0.322	89	122	66	61	125.0	89.0	16	7	B
90	80	701 490 013	0.476	105	138	78	73	140.0	103.0	17	8	B
110	100	701 490 014	0.718	125	158	100	90	160.0	117.0	18	10	B
125	100	701 490 015	0.836	132	158	114	102	170.0	125.0	25	11	B
140	125	701 490 016	1.380	155	188	127	114	200.0	147.0	25	13	B
160	150	701 490 017	1.723	175	212	158	130	200.0	147.0	25	15	B
180	150	701 490 018	1.873	180	212	158	147	200.0	170.0	30	16	B
200	200	701 490 019	2.927	232	268	203	163	200.0	128.0	32	18	B
225	200	701 490 020	2.972	235	268	210	184	200.0	138.0	32	21	B
250	250	753 800 021	4.878	285	320	245	204	219.0	138.0	35	23	B
280	250	753 800 022	4.925	291	320	265	229	231.0	144.0	35	25	B
315	300	753 800 023	7.135	335	370	300	257	239.0	158.0	35	29	B
355	350	753 800 224	10.400	373	430	342	284	267.0	170.0	40	32	B
400	400	753 800 225	14.500	427	482	387	320	292.0	185.0	46	36	B
450	500	753 800 226	23.700	514	585	400	360	330.0	205.0	60	41	B
500	500	753 800 227	27.100	530	585	442	400	351.0	220.0	60	46	B
560	600	753 800 028	40.000	615	685	490	458	365.0	230.0	60	51	B
630	600	753 800 029	42.300	642	685	545	515	385.0	250.0	60	57	B



Type A



Type B



## Flange adaptor LS PE100 SDR17/17.6

Combined jointing face:  
Flat and serrated

### Model:

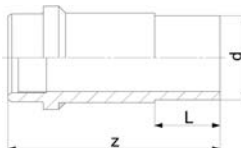
- Up to d280, suitable for butterfly valve type Type 037/038/039
- Up to d315, suitable for butterfly valve type 567/578
- Gasket: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- 5 bar Gas / 10 bar Water
- For butt-, IR Plus® and electrofusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)

d (mm)	DN (mm)	Code	Weight (kg)	d1 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	Type
90	80	701 490 063	0.385	105	138		79	140	103	17	5	A
110	100	701 490 064	0.568	125	158		96	160	117	18	7	A
125	100	701 490 065	0.629	132	158	114	110	170	125	25	7	B
140	125	701 490 066	1.073	155	188	127	123	200	147	25	8	B
160	150	701 490 067	1.346	175	212	158	141	200	147	25	10	B
180	150	701 490 068	1.478	180	212		158	200	170	30	11	A
200	200	701 490 069	2.212	232	268	203	176	200	128	32	12	B
225	200	701 490 070	2.233	235	268	210	198	200	138	32	13	B
250	250	753 800 096	3.500	285	320	245	220	220	148	35	15	B
280	250	753 800 097	3.780	291	320	265	246	230	154	35	17	B
315	300	753 800 098	5.470	335	370	300	277	242	166	36	19	B
355	350	753 800 299	7.100	373	430	346	310	260	170	33	21	B
400	400	753 800 300	9.600	427	482	395	350	282	185	36	24	B
450	500	753 800 301	16.400	514	585	400	400	316	205	46	27	B
500	500	753 800 302	18.500	530	585	442	400	337	220	46	30	B
560	600	753 800 103	27.500	615	685		493	365	230	60	33	A
630	600	753 800 104	30.000	642	685		555	385	250	60	37	A

## Adaptor

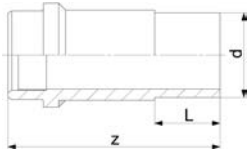


- PE 100 SDR 11 (ISO S5)



d (mm)	Code	Weight (kg)	DN (mm)	z (mm)	L (mm)
40	701 485 463	0.260	40	225	57
50	701 485 464	0.270	40	225	63
63	701 485 465	0.410	50	230	65
75	701 485 466	0.710	65	250	70
90	701 485 467	1.000	80	260	80
110	701 485 468	2.370	100	270	85
125	701 485 470	2.450	125	290	90
140	701 485 471	2.140	125	335	150
160	701 485 474	3.050	150	305	100
200	701 485 476	5.560	200	330	115

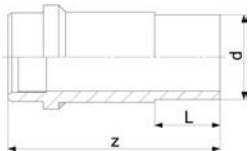
### Adaptor



- PE 100 SDR 11 (ISO S5)

d (mm)	Code	Weight (kg)	DN (mm)	z (mm)	L (mm)
125	<b>701 485 469</b>	3.603	100	330	90
160	<b>701 485 472</b>	4.990	100	360	100
160	<b>701 485 473</b>	7.460	125	360	100
180	<b>701 485 475</b>	8.900	150	370	105
225	<b>701 485 477</b>	13.300	200	365	150

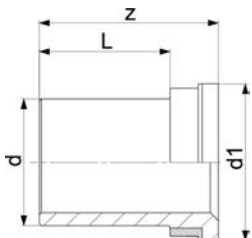
### Adaptor



- PE 100 SDR 11 (ISO S5)

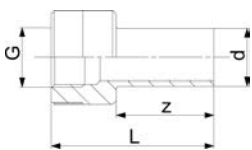
d (mm)	Code	Weight (kg)	DN (mm)	z (mm)	L (mm)
125	<b>701 485 459</b>	4.650	100	330	90
160	<b>701 485 460</b>	4.990	100	360	100
160	<b>701 485 461</b>	7.460	125	360	100
180	<b>701 485 462</b>	8.900	150	0	0

### Union bush



d (mm)	Code	Weight (kg)	z (mm)	L (mm)	d1 (mm)
20	<b>701 485 570</b>	0.040	69	52	30
25	<b>701 485 571</b>	0.059	70	52	39
32	<b>701 485 572</b>	0.081	78	54	44
40	<b>701 485 573</b>	0.127	80	57	56
50	<b>701 485 574</b>	0.148	90	65	62
63	<b>701 485 575</b>	0.239	90	65	78

### Instrument installation spigots PE80 thread G

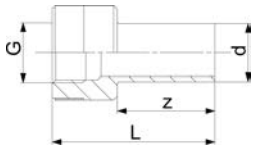


#### Model:

- For the connection of measuring instruments only
- Usable with all types of electrofusion couplers

d (mm)	G (inch)	Code	Weight (kg)	z (mm)	L (mm)
20	½	<b>701 473 809</b>	0.050	52	90
25	½	<b>701 473 803</b>	0.050	52	90
25	¾	<b>701 473 810</b>	0.052	52	90
32	½	<b>701 473 804</b>	0.060	52	90
32	1	<b>701 473 811</b>	0.060	54	90
40	½	<b>701 473 812</b>	0.049	57	75
40	1 ¼	<b>701 473 806</b>	0.081	57	100
50	½	<b>701 473 813</b>	0.075	63	80

table continued on the next page



d (mm)	G (inch)	Code	Weight (kg)	z (mm)	L (mm)
50	1 ¼	<b>701 473 805</b>	0.094	63	80
50	1 ½	<b>701 473 807</b>	0.100	63	105
63	½	<b>701 473 814</b>	0.107	65	80
63	2	<b>701 473 808</b>	0.110	65	110



### Welding nozzles

- **PE 80 SDR 11** (ISO S5)
- For repair of non-pressure water pipelines
- Prevents water from entering the fusion zone of electrofusion couplers
- Usable with all types of electrofusion couplers
- Combination only with SDR 11 (ISO S5) pipes

d (mm)	Code	Weight (kg)	d1 (mm)
32	<b>701 477 983</b>	0.003	32
40	<b>701 477 984</b>	0.009	40
50	<b>701 477 985</b>	0.006	50
63	<b>701 477 986</b>	0.012	63
75	<b>701 477 987</b>	0.015	75
90	<b>701 477 988</b>	0.017	90
110	<b>701 477 989</b>	0.038	110
125	<b>701 477 990</b>	0.031	125
160	<b>701 477 992</b>	0.080	160
180	<b>701 477 993</b>	0.120	180
200	<b>701 477 994</b>	0.160	200
225	<b>701 477 995</b>	0.210	225



# Backing flanges



## Backing flange PP-V metric For butt fusion systems metric

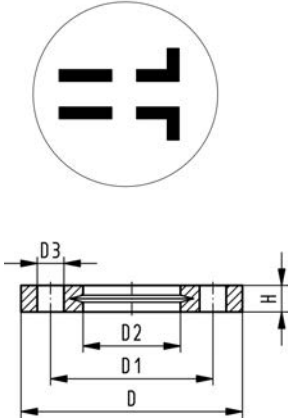
### Model:

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

AL: number of holes

<sup>1)</sup> Suitable for socket- and butt fusion systems

<sup>2)</sup> Combined version, metric-ANSI



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	20	15	16	<b>727 700 406</b>	0.093	95	65	28	14	16	4	M12
1	25	20	16	<b>727 700 407</b>	0.120	105	75	34	14	17	4	M12
1	32	25	16	<b>727 700 408</b>	0.151	115	85	42	14	18	4	M12
1	40	32	16	<b>727 700 409</b>	0.244	140	100	51	18	20	4	M16
1	50	40	16	<b>727 700 410</b>	0.297	150	110	62	18	22	4	M16
1	63	50	16	<b>727 700 411</b>	0.362	165	125	78	18	24	4	M16
1	75	65	16	<b>727 700 412</b>	0.487	185	145	92	18	26	4	M16
	90	80	16	<b>727 700 513</b>	0.544	200	160	108	18	27	8	M16
	110	100	16	<b>727 700 514</b>	0.643	220	180	128	18	28	8	M16
	125	100	16	<b>727 700 515</b>	0.635	220	180	135	18	28	8	M16
	140	125	16	<b>727 700 516</b>	0.842	250	210	158	18	30	8	M16
2	160	150	16	<b>727 700 517</b>	1.200	285	240	178	22	32	8	M20
	180	150	16	<b>727 700 518</b>	1.200	285	240	188	22	32	8	M20
2	200	200	16	<b>727 700 519</b>	1.400	340	295	235	22	34	8	M20
2	225	200	16	<b>727 700 520</b>	1.400	340	295	238	22	34	8	M20
	250	250	10	<b>727 700 521</b>	2.052	395	350	288	22	38	12	M20
	280	250	10	<b>727 700 522</b>	1.700	395	350	294	22	38	12	M20
	315	300	10	<b>727 700 523</b>	2.400	445	400	338	22	42	12	M20
	355	350	10	<b>727 700 524</b>	4.440	515	460	376	22	46	16	M20
	400	400	10	<b>727 700 525</b>	5.624	574	515	430	26	50	16	M24



## Backing flange PP-Steel metric For butt fusion systems metric

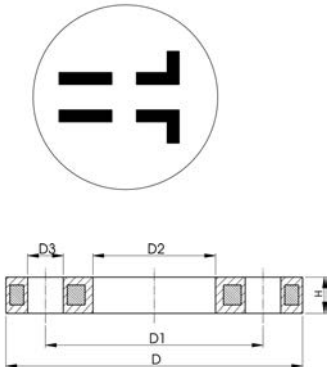
### Model:

- 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

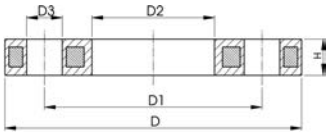
<sup>1)</sup> Suitable for socket -and butt fusion systems

<sup>2)</sup> Combined version, bolt circle metric - ANSI



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
1	20	15	16	<b>727 700 206</b>	0.216	95	65	28	14	12	4	M12
1	25	20	16	<b>727 700 207</b>	0.279	105	75	34	14	12	4	M12
1	32	25	16	<b>727 700 208</b>	0.429	115	85	42	14	16	4	M12
1	40	32	16	<b>727 700 209</b>	0.621	140	100	51	18	16	4	M16
1	50	40	16	<b>727 700 210</b>	0.722	150	110	62	18	20	4	M16
1	63	50	16	<b>727 700 211</b>	0.900	165	125	78	18	20	4	M16
1	75	65	16	<b>727 700 212</b>	1.110	185	145	92	18	20	4	M16
	90	80	16	<b>727 700 313</b>	1.390	200	160	108	18	20	8	M16
	110	100	16	<b>727 700 314</b>	1.407	220	180	128	18	20	8	M16
	125	100	16	<b>727 700 315</b>	1.408	220	180	135	18	20	8	M16
	140	125	16	<b>727 700 716</b>	2.318	250	210	158	18	26	8	M16
2	160	150	16	<b>727 700 717</b>	3.491	285	241	178	22	26	8	M20
	180	150	16	<b>727 700 718</b>	3.108	285	241	188	22	26	8	M20

table continued on the next page



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
2	200	200	16	727 700 719	5.600	340	297	235	22	29	8	M20
2	225	200	16	727 700 720	5.533	340	297	238	22	29	8	M20
	250	250	16	727 700 721	6.632	395	350	288	22	32	12	M20
	280	250	16	727 700 722	6.573	395	350	294	22	32	12	M20
	315	300	16	727 700 723	7.903	445	400	338	22	36	12	M20
	355	350	16	727 700 724	14.587	515	460	376	23	42	16	M20
	400	400	16	727 700 725	20.034	574	515	430	26	42	16	M24



### Profiled backing flange PP-Steel metric For butt fusion systems metric

#### Model:

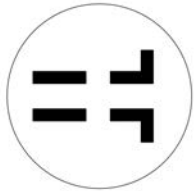
- PP with glass-fibre reinforcement and GGG 50 insert
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

#### Note:

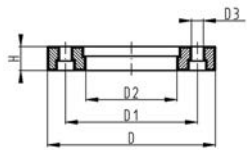
flat side = bolt side profiled side = flange adaptor side

AL: number of holes

\* Galvanized steel S235-JR, suitable for underground laying



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
*	450	450	10	724 705 026	38.000	615	565	470	26	36	20	M24
	450	500	10	724 700 426	25.600	685	620	517	26	56	20	M24
	500	500	10	724 700 427	21.061	685	620	533	26	56	20	M24
	560	600	10	724 700 428	35.000	796	725	618	30	68	20	M27
	630	600	10	724 700 429	28.500	800	725	645	30	68	20	M27
	710	700	6	724 700 430	25.500	912	840	740	30	49	24	M27
	800	800	6	724 700 431	39.300	1026	950	843	33	58	24	M30



### Profiled backing flange PP-Steel metric For butt fusion systems metric

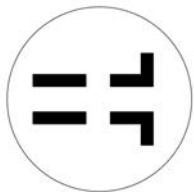
#### Model:

- PP with glass-fibre reinforcement and GGG 50 insert
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 16**

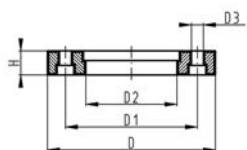
#### Note:

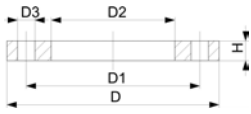
flat side = bolt side profiled side = flange adaptor side

AL: number of holes



	d (mm)	DN (mm)	PN (bar)	Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	AL	SC
	200	200	16	724 700 319	3.549	344	295	235	22	31	12	M20
	225	200	16	724 700 320	3.380	344	295	238	22	31	12	M20
	250	250	16	724 700 321	6.390	410	355	288	26	35	12	M24
	280	250	16	724 700 322	6.310	410	355	294	26	36	12	M24
	315	300	16	724 700 323	9.740	455	410	338	26	43	12	M24
	355	350	16	724 700 324	15.203	521	470	376	26	55	16	M24
	400	400	16	724 700 325	20.600	582	525	430	30	56	16	M27





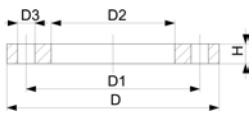
### Backing flange steel metric For butt fusion systems metric

#### Model:

- Material: S235JR / zinc-coated
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 16**

AL: number of holes

d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
32	25	16	<b>701 474 390</b>	1.100	115	85	42	14	12	4	M12
40	32	16	<b>701 474 391</b>	1.500	140	100	51	18	14	4	M16
50	40	16	<b>701 474 392</b>	1.600	150	110	62	18	14	4	M16
63	50	16	<b>701 474 393</b>	1.900	165	125	78	18	16	4	M16
75	65	16	<b>701 474 394</b>	2.400	185	145	92	18	16	4	M16
90	80	16	<b>701 474 395</b>	2.900	200	160	108	18	18	8	M16
110	100	16	<b>701 474 396</b>	3.100	220	180	128	18	18	8	M16
125	100	16	<b>701 474 397</b>	3.060	220	180	135	18	18	8	M16
125	125	16	<b>701 474 386</b>	6.000	250	210	135	18	25	8	M16
140	125	16	<b>701 474 387</b>	3.700	250	210	158	18	18	8	M16
160	150	16	<b>701 474 382</b>	5.100	285	240	178	22	20	8	M20
180	150	16	<b>701 474 398</b>	4.800	285	240	188	22	20	8	M20
200	200	16	<b>701 480 475</b>	7.400	340	295	235	22	24	12	M20
225	200	16	<b>701 480 476</b>	7.400	340	295	238	22	24	12	M20
250	250	16	<b>701 480 477</b>	13.000	405	355	288	26	30	12	M24
280	250	16	<b>701 480 478</b>	12.600	405	355	294	26	30	12	M24
315	300	16	<b>701 480 479</b>	18.400	460	410	338	26	34	12	M24
355	350	16	<b>701 480 480</b>	25.000	520	470	376	26	35	16	M24
400	400	16	<b>701 480 481</b>	31.000	580	525	430	30	38	16	M27
450	500	16	<b>701 480 482</b>	37.000	715	650	517	33	46	20	M30
500	500	16	<b>701 480 483</b>	32.000	715	650	533	33	46	20	M30



### Backing flange steel metric For butt fusion systems metric

#### Model:

- Material: S235JR / zinc-coated
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

AL: number of holes

d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
200	200	10	<b>701 474 383</b>	7.400	340	295	235	22	20	8	M20
225	200	10	<b>701 474 388</b>	7.400	340	295	238	22	20	8	M20
250	250	10	<b>701 474 399</b>	9.090	395	350	288	22	22	12	M20
280	250	10	<b>701 474 400</b>	8.700	395	350	294	22	22	12	M20
315	300	10	<b>701 474 401</b>	12.200	445	400	338	22	26	12	M20
355	350	10	<b>701 480 489</b>	18.300	505	460	376	22	28	16	M20
450	450	10	<b>724 705 026</b>	38.000	615	565	470	26	36	20	M24
400	400	10	<b>701 480 490</b>	22.900	565	515	430	26	32	16	M24
450	500	10	<b>701 480 491</b>	37.000	670	620	517	26	38	20	M24
500	500	10	<b>701 480 492</b>	32.000	670	620	533	26	38	20	M24
560	600	10	<b>701 480 493</b>	53.800	780	725	618	30	42	20	M27
630	600	10	<b>701 480 494</b>	45.100	780	725	645	30	42	20	M27



**Profiled backing flange steel metric**  
For butt fusion systems metric

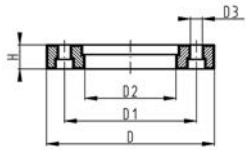
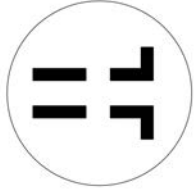
**Model:**

- Ductile iron (GGG40), epoxy coated (black)
- Connecting dimensions: ISO 7005, EN 1092, DIN 2501
- **Bolt circle PN 10**

\* Galvanized steel S235-JR, suitable for underground laying  
AL: number of holes

**Note:**

flat side = bolt side profiled side = flange adaptor side



	d	DN	PN	Code	Weight	D	D1	D2	D3	H	AL	SC
	(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
*	450	450	10	<b>724 705 026</b>	38.000	615	565	470	26	44	20	M24
	710	700	6	<b>724 705 130</b>	36.400	900	840	740	30	45	24	M27
	800	800	6	<b>724 705 131</b>	50.500	1015	950	843	33	53	24	M30
	900	900	6	<b>724 705 132</b>	55.800	1115	1050	947	33	56	28	M30
	1000	1000	6	<b>724 705 133</b>	71.100	1230	1160	1050	36	62	28	M33
	1200	1200	4	<b>724 705 134</b>	101.000	1455	1380	1260	39	68	32	M36



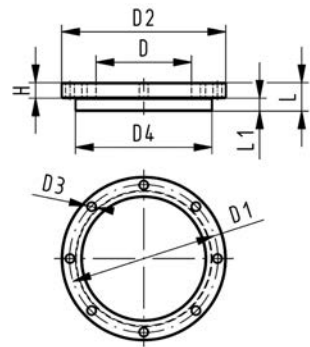
**Blanking flange set PE**  
Combined jointing face flat and serrated metric

**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**

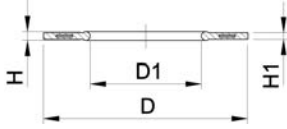
AL: number of holes

L: length of the End Blank



d	DN	PN	Code	Weight	D	D1	D2	D3	D4	L	L1	H	AL	SC
(mm)	(mm)	(bar)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		
63	50	16	<b>753 700 611</b>	0.560	75	125	165	18	102	30	14	24	4	M16
75	65	16	<b>753 700 612</b>	0.910	89	145	185	18	122	30	16	26	4	M16
90	80	16	<b>753 700 613</b>	0.921	105	160	200	18	138	30	17	27	8	M16
110	100	16	<b>753 700 614</b>	1.158	125	180	220	18	158	30	18	28	8	M16
125	100	16	<b>753 700 615</b>	1.678	132	180	220	18	158	35	25	28	8	M16
140	125	16	<b>753 700 616</b>	1.913	155	210	250	18	188	40	25	30	8	M16
160	150	16	<b>753 700 617</b>	2.373	175	240	285	22	212	40	25	32	8	M20
180	150	16	<b>753 700 618</b>	2.430	180	240	285	22	212	45	30	32	8	M20
200	200	16	<b>753 700 619</b>	3.495	232	295	340	22	268	50	32	34	8	M20
225	200	16	<b>753 700 620</b>	3.744	235	295	340	22	268	50	32	34	8	M20
250	250	16	<b>753 700 621</b>	6.051	285	350	395	22	320	55	35	38	12	M20
280	250	16	<b>753 700 622</b>	6.305	291	350	395	22	320	60	35	38	12	M20
315	300	16	<b>753 700 623</b>	8.894	335	400	445	22	370	65	35	42	12	M20
355	350	16	<b>753 700 624</b>	23.198	373	460	515	22	430	70	40	40	16	M20
400	400	16	<b>753 700 625</b>	30.766	427	515	574	26	482	75	46	40	16	M24
450	500	10	<b>753 700 626</b>	44.271	510	620	684	26	585	80	60	49	20	M24
500	500	10	<b>753 700 627</b>	47.165	530	620	684	26	585	90	60	49	20	M24
560	600	10	<b>753 700 628</b>	67.147	615	725	796	30	685	100	60	58	20	M27
630	600	10	<b>753 700 629</b>	68.574	642	725	796	30	685	110	60	68	20	M27

# Gaskets

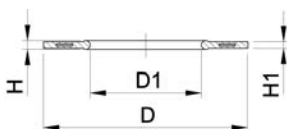


## Profile flange gasket metric NBR

### Model:

- NBR = Nitrile rubber, hardness approx. 80° Shore
- For all metric GF Flange Adaptors
- Rubber-steel body combined with rubber profile cord ring
- Approved acc. to DVGW standard DIN EN 682 for gas
- D corresponds to the centring at the inner diameter of the screw crown

d (mm)	DN (mm)	PN (bar)	NBR Code	Weight (kg)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	di FA (mm)
20	15	16	745 440 706	0.009	51	20	4	3	10 - 20
25	20	16	745 440 707	0.012	61	22	4	3	12 - 22
32	25	16	745 440 708	0.018	71	28	4	3	18 - 28
40	32	16	745 440 709	0.021	82	40	4	3	30 - 40
50	40	16	745 440 710	0.029	92	46	4	3	36 - 46
63	50	16	745 440 711	0.039	107	58	5	4	48 - 58
75	65	16	745 440 712	0.058	127	69	5	4	59 - 69
90	80	16	745 440 713	0.063	142	84	5	4	73 - 84
110	100	16	745 440 714	0.096	162	104	6	5	94 - 104
125	100	16	745 440 715	0.073	162	123	6	5	113 - 123
140	125	16	745 440 716	0.128	192	137	6	5	127 - 137
160 - 180	150	16	745 440 717	0.145	218	160	8	6	150 - 160
200	200	16	745 440 719	0.286	273	203	8	6	192 - 203
225	200	16	745 440 720	0.183	273	220	8	6	207 - 220
250	250	16	745 440 721	0.355	328	252	8	6	238 - 252
280	250	16	745 440 722	0.229	328	274	8	6	264 - 274
315	300	16	745 440 723	0.419	378	306	8	6	296 - 306
355	350	16	745 440 724	0.645	438	355	10	7	340 - 355
400	400	16	745 440 725	0.819	489	400	10	7	385 - 400
450	500	16	745 440 726	1.885	594	403	10	7	393 - 403
500	500	16	745 440 727	1.618	594	447	10	7	437 - 447
560	600	16	745 440 728	2.281	695	494	10	7	484 - 494
630	600	16	745 440 729	2.000	695	555	10	7	545 - 555



## Profile Flange Gasket, metric EPDM / FKM

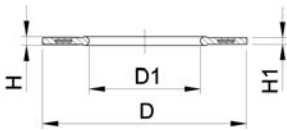
### Model:

- For all metric GF Flange Adaptors
- Hardness: 70° Shore EPDM, 75° Shore FKM
- EPDM: approved acc. to DVGW Water W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel
- Rubber-steel body combined with rubber profile cord ring

di FA are the suitable inner diameters of flanges adaptors

d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
16	16	10	748 440 705	749 440 705	0.012	46	16	6 - 16	4	3
20	16	15	748 440 706	749 440 706	0.013	51	20	10 - 20	4	3
25	16	20	748 440 707	749 440 707	0.014	61	22	12 - 22	4	3
32	16	25	748 440 708	749 440 708	0.019	71	28	18 - 28	4	3
40	16	32	748 440 709	749 440 709	0.026	82	40	30 - 40	4	3
50	16	40	748 440 710	749 440 710	0.039	92	46	36 - 46	4	3
63	16	50	748 440 711	749 440 711	0.050	107	58	48 - 58	5	4
75	16	65	748 440 712	749 440 712	0.082	127	69	59 - 69	5	4
90	16	80	748 440 713	749 440 713	0.083	142	84	73 - 84	5	4
110	16	100	748 440 714	749 440 714	0.127	162	104	94 - 104	6	5
125	16	100	748 440 715	749 440 715	0.105	162	123	113 - 123	6	5

table continued on the next page



d (mm)	PN (bar)	DN (mm)	EPDM Code	FKM Code	Weight (kg)	D (mm)	D1 (mm)	di FA (mm)	H (mm)	H1 (mm)
140	16	125	748 440 716	749 440 716	0.173	192	137	127 - 137	6	5
160 - 180	16	150	748 440 717	749 440 717	0.207	218	160	150 - 160	8	6
200	16	200	748 440 719	749 440 719	0.263	273	203	192 - 203	8	6
225	16	200	748 440 720	749 440 720	0.255	273	220	207 - 220	8	6
250	16	250	748 440 721	749 440 721	0.462	328	252	238 - 252	8	6
280	16	250	748 440 722	749 440 722	0.323	328	274	264 - 274	8	6
315	16	300	748 440 723	749 440 723	0.549	378	306	296 - 306	8	6
355	16	350	748 440 724	749 440 724	0.870	438	355	340 - 355	10	7
400	16	400	748 440 725	749 440 725	1.088	489	400	385 - 400	10	7
450	16	500	748 440 726	749 440 726	0.718	594	403	393 - 403	10	7
500	16	500	748 440 727	749 440 727	0.718	594	447	437 - 447	10	7
560	16	600	748 440 728	749 440 728	0.923	695	494	484 - 494	10	7
630	16	600	748 440 729	749 440 729	0.923	695	555	545 - 555	10	7

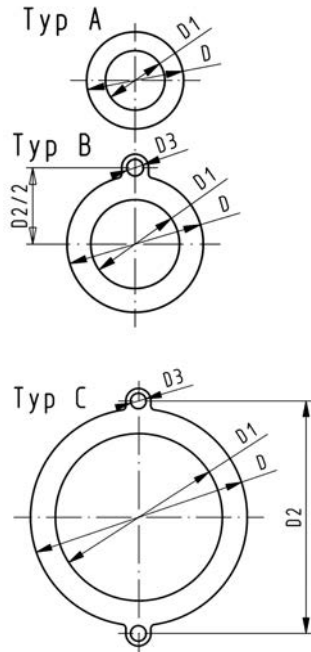


### Flat gasket EPDM

#### Model:







- For all metric GF Flange Adaptors
- Hardness approx. 65° Shore
- Integrated fixation aids from d110
- Centering on the inner diameter of the screw crown

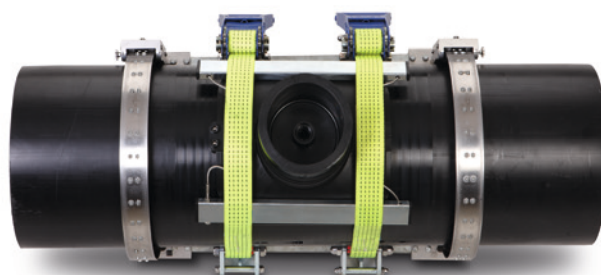
di FA are the suitable inner diameters of flanges adaptors



d (mm)	DN (mm)	PN (bar)	Type	EPDM Code	Weight (kg)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	H (mm)	di FA (mm)
16	10	10	A	748 400 305	0.004	46	16			2	6 - 26
20	15	10	A	748 400 306	0.012	51	20			2	10 - 30
25	20	10	A	748 400 307	0.004	61	25			2	15 - 35
32	25	10	A	748 400 308	0.008	71	32			2	22 - 42
40	32	10	A	748 400 309	0.013	82	40			3	30 - 50
50	40	10	A	748 400 310	0.016	92	50			3	40 - 60
63	50	10	A	748 400 311	0.018	107	63			3	53 - 73
75	65	10	A	748 400 312	0.029	127	71			3	61 - 81
90	80	10	A	748 400 313	0.035	142	84			3	74 - 94
110	100	10	B	748 400 314	0.051	162	104	180	18	4	94 - 114
125	100	10	B	748 400 315	0.044	162	119	180	18	4	109 - 129
140	125	10	B	748 400 316	0.068	192	134	210	18	4	124 - 144
160 - 180	150	10	B	748 400 317	0.090	218	155	241	22	4	145 - 165
200	200	6	C	748 400 319	0.180	273	195	295	22	5	185 - 205
225	200	6	C	748 400 320	0.140	273	216	295	22	5	206 - 226
250	250	6	C	748 400 321	0.210	328	250	350	22	5	240 - 260
280	250	6	C	748 400 322	0.151	328	273	350	22	5	263 - 283
315	300	6	C	748 400 323	0.237	378	305	400	22	5	295 - 315

# Machines & tools

Machines & tools	Page
	Electrofusion units and accessories 80
	Tools for preparing pipe surfaces 84
	Tapping tools 89
	Clamps and installation aids 92
	Squeeze-off and rerounding tools 97
	Plastic pipe cutters and accessories 100



# Electrofusion units and accessories



## EFL 20 Automatic Electrofusion Unit

The EFL 20 automatic electro fusion unit combines light weight and high efficiency, thanks to its inverter technology. The unit is extremely fast and simple, with three basic operations required to operator: connect, scan, start the fusion.

It is robust, safe and ergonomic.

All is meant to simplify the job: the barcode scanner, for long distance reading, the cooling system to joint in series, the icon system, to keep the interaction between user and machine intuitive. The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time.

Scope of delivery includes: 1 pair of angle adapter clips 4.0 mm, operating instructions and robust transport case

### Technical Data:

- Operating temperature: -20°C to +50°C
- Mains frequency: 50-60 Hz
- Mains voltage: 230V (190V - 265V)
- Fusion current: 90 A (max)
- Suggested power generators: 3.5 kVA
- Welding technique: Voltage controlled
- Fusion voltage: 8-42 V (48 V)
- Fittings range: d20-1200 mm
- Fusion data input mode: bar code, manual
- USB Port: Type A
- Protection factor: Class 1 / IP 65
- Mains cable: 4 m
- Fusion cable: 3 m
- Dimensions: 280 x 480 x 220 mm
- Weight: ca. 11.9 kg
- Display: Graphical LCD, adjustable contrast
- Independent from languages

Type	Code	Weight (kg)
EFL 20 with barcode scanner and transport box	<b>790 156 008</b>	<b>20.000</b>



### MSA 2.1 Automatic Electrofusion Unit with protocols retrieval



The MSA 2.1 automatic electro fusion unit combines light weight and high efficiency, thanks to its inverter technology and furthermore provides fusion documentation in PDF. The unit is extremely fast and simple, with three basic operations required to operator: connect, scan, start the fusion. It is robust, safe and ergonomic.

All is meant to simplify the job: the barcode scanner, for long distance reading, the cooling system to joint in series, the icon system, to keep the interaction between user and machine intuitive. The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time.

The unit has 1000 protocols permanently stored in the internal memory. The user can copy the fusion reports in an USB stick to print them out in PDF format.

Scope of delivery includes: transport box, angle adapters (4.0 mm and 4.7 mm), operating instructions, START/STOP badge and USB memory stick with PC applications.

#### Technical Data:

- Operating temperature: -20°C to +50°C
- Mains voltage: 230V (190V - 265V)
- Mains frequency: 50-60 Hz
- Fusion voltage: 8-42 V (48 V)
- Fusion data input mode: bar code, manual
- Fusion current: 90 A (max)
- Suggested power generators: 3.5 kVA
- Fittings range: d20-1200 mm
- Protocols format: PDF and binary (compatible with mini Welding Book)
- USB Port: Type A
- Protection factor: Class 1 / IP 65
- Mains cable: 4 m
- Fusion cable: 4 m
- Weight: ca. 11.9 kg
- Display: Graphical LCD, adjustable contrast
- Independent from languages

Type	Code	Weight (kg)
Barcode scanner, transport case, mini Welding Book	<b>790 156 003</b>	20.000
Barcode scanner, transport case, mini Welding Book, Swiss plug	<b>790 156 006</b>	20.000
Barcode scanner, transport case, mini Welding Book, 8m fusion cable	<b>790 156 010</b>	21.000



### MSA 4.0 Electrofusion Unit with full traceability and GPS functions

High performance, light electro-fusion unit based on inverter technology, providing a complete documentation of the welding including operator badge, job codes, full traceability data (ISO 12176) and GPS coordinates added automatically to each fusion record.

All is meant to simplify the job: the barcode scanner, for long distance reading, the cooling system to joint in series, the icon system, to keep the interaction between user and machine intuitive, the configurable workflow to fit all needs, from the simplest to the most plenty of details.

The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time.

For operator identity card, job identification and fusion data input a 1D (or 2D in case of Unitary QR code availability) barcode scanner is connected.

The internal memory has a capacity of 5000 jointing records, which can be retrieved using a USB memory stick. The fusion protocols are delivered as PDF, CSV files (both manageable with standard and free PC software applications). For a more sophisticated usage, a BIN file is also available, compatible with the MSA Welding Book to sort, filter out and combine protocols and photos captured from multiple MSA units.

Robust aluminum die casting enclosures and comfortable plastic handle ensure a weight balanced carrying.

Rental time period programmable by the machine owner, unit blocks on expiring date, reset by a dynamic code can be activated.

Scope of delivery: transport case, angle adapters (4,0 mm and 4,7 mm), operation instructions, START/STOP badge, configuration chart and USB memory stick with PC applications.

#### Technical Data:

- Mains frequency: 50-60 Hz
- Fusion data input mode: bar code, manual
- Mains voltage: 230V (190V - 265V)
- Suggested power generators: 3.5 kVA
- Welding technique: Voltage controlled
- Fusion voltage: 8-48 V
- Fusion current: 110 A (max)
- Fittings range: d20-1400 mm
- USB Port: Type A
- Operating temperature: -20°C to +50°C
- Internal memory capacity: 5000 protocols
- Protocols format: PDF, CSV and BIN (compatible with MSA Welding Book)
- Protection factor: Class 1 / IP 65
- Mains cable: 4 m
- Fusion cable: 4 m
- Dimensions: 280 x 480 x 220 mm
- Weight: ca. 12.8 kg
- Display: Graphical LCD, adjustable contrast
- Languages support: 27

Type	Description	Code	Weight (kg)
MSA 4.0	1D barcode scanner	<b>790 156 011</b>	19.500
MSA 4.0	2D barcode scanner (QR code reading)	<b>790 156 012</b>	19.500
MSA 4.0	1D barcode scanner, 8m welding cables	<b>790 156 014</b>	19.500



### Barcode Scanner

Barcode scanner for automatic fusion and traceability data reading of fittings and pipes

Description	Code	Weight (kg)
Standard MSA230/MSA330/MSA340 scanner and cable	<b>790 128 119</b>	0.250
MSAplus scanner and cable	<b>790 160 227</b>	0.250
MSA330/MSA340 rugged scanner and cable	<b>790 160 225</b>	0.250
MSA 2.0 barcode scanner	<b>790 156 160</b>	0.250
MSA 2.1 and MSA 4.0 1D barcode scanner	<b>790 156 260</b>	0.250
MSA 4.0 2D barcode scanner	<b>790 156 261</b>	0.250
Barcode scanner with pouch for old MSA and MSAplus	<b>799 350 419</b>	0.521
MSA 125 scanner and cable	<b>790 160 251</b>	0.250
MSA330/MSA340 rugged USB scanner and cable	<b>790 160 252</b>	0.350



### Adapters for MSA electro-fusion units

- Adapters for Electrofusion units with 4 mm connectors.
- Compatible with all MSA Units

Type	Code	Weight (kg)	Description
4,0 mm	<b>799 350 340</b>	0.058	Angle adapter, black
4,7 mm	<b>799 350 341</b>	0.057	Angle adapter, grey
4,7 mm	<b>799 350 462</b>	0.014	Adapter, white

---

# Tools for preparing pipe surfaces



## Tangit KS Cleaner

- Special cleaner for plastic fusion connections in the material of PP, PE, PVDF and PB
- Suitable for Tangit Rapid. Must not be used for solvent cementing
- DVGW approved
- DW 5290 BR 0464

Size	Code	Weight (kg)
1 liter	<b>799 298 023</b>	0.872



## Tangit KS-Cleaning Tissues

- Special cleaner for plastic fusion connections in the material of PP, PE, PVDF and PB
- DVGW approved
- DW 5290 BR 0464

Contents	Code	Weight (kg)
1 dispenser with 100 tissues	<b>799 298 024</b>	0.333

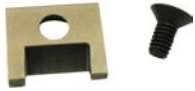


## Rotary Peeler RS

### Note:

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 PE 80, PE 100, PEX, PP.

d (mm)	Article	Code	Weight (kg)
40	RS 40	<b>790 136 001</b>	1.310
50	RS 50	<b>790 136 002</b>	1.310
63	RS 63	<b>790 136 003</b>	1.310
75	RS 75	<b>790 136 004</b>	1.540
90	RS 90	<b>790 136 005</b>	1.540
110	RS 110	<b>790 136 006</b>	1.540
125	RS 125	<b>790 136 007</b>	1.730
140	RS 140	<b>790 136 008</b>	1.730
160	RS 160	<b>790 136 009</b>	1.730
180	RS 180	<b>790 136 010</b>	2.030
200	RS 200	<b>790 136 011</b>	2.030
225	RS 225	<b>790 136 012</b>	2.030
250	RS 250	<b>790 136 013</b>	2.440
280	RS 280	<b>790 136 014</b>	2.440
315	RS 315	<b>790 136 015</b>	2.440



### Replacement blade to Rotary Peeler RS

d-d (mm)	Description	Code	Weight (kg)
40 - 315	Hard metal	<b>790 136 100</b>	0.013



### Transport cases for Rotary Peeler RS

- Included in the scope of delivery of the Rotary Peeler RS

Article	Code	Weight (kg)	Dimension (mm)	Description
RSTC 40-63	<b>790 136 221</b>	0.718	343 - 277 - 125	for RS 40-RS 63
RSTC 75-110	<b>790 136 222</b>	0.870	343 - 277 - 125	for RS 75-RS 110
RSTC 125-160	<b>790 136 223</b>	0.870	490 - 400 - 153	for RS 125-RS 160
RSTC 180-225	<b>790 136 213</b>	1.796	450 - 360 - 132	for RS 180-RS 225
RSTC 250-315	<b>790 136 214</b>	2.901	566 - 435 - 156	for RS 250-RS 315



### Rotary peeling tool RST 1000

- The flexible peeling tool RST 1000 is suitable for preparing welding zones of saddle and coupler jointings for Electrofusion fittings
- To ensure the constant removal of the oxidation layer for PE80 and PE100, a long lasting peeling blade made of carbide is used
- Easy-to-hinge chain links enable the staged operation of pipes d250 to d1000 mm
- Compensation for ovality and variable pipe diameters with loaded spring component in the chain
- Scope of delivery includes: various chain links, spare blade, transport box

d-d (mm)	Code	Weight (kg)
250 - 1000	<b>799 300 799</b>	10.552



### Replacement blade for rotary peeling tool RST 1000

d-d (mm)	Code	Weight (kg)	Description
250 - 1000	<b>799 300 802</b>	0.020	Replacement blade in carbide



### Transportbox RST 1000 with inlays

- Included in the scope of delivery of the Rotary Peeler RST 1000

d-d (mm)	Code	Weight (kg)
250 - 1000	<b>799 300 806</b>	0.250



### Pipe end peeler RSE

- **Rotary peeler for reliable pipe preparation prior to electrofusion**
- Consisting of 1 tool including corresponding pipe insert
- Applicable on pipe ends and spigot ends of fittings
- Applicable for straight and coiled pipes
- Applicable for metric pipes according to EN12201 und EN1555
- Applicable on pipe material: PE100RC, PE100, PE-Xa, PP
- Operation: manual or with cordless screwdriver
- Maximum peeling length = 85mm
- Peeling blade as reversing knife with 2 cutting edges
- Delivery in transport box

d (mm)	Code	Weight (kg)	SDR	e (mm)	L (mm)	B (mm)	H (mm)
20	<b>799 300 376</b>	0.60	11	2.0	280	50	50
25	<b>799 300 377</b>	0.65	11	2.3	280	50	50
32	<b>799 300 378</b>	0.65	11	3.0	280	50	50
40	<b>799 300 379</b>	0.70	11	3.7	280	55	55
50	<b>799 300 380</b>	0.80	11	4.6	280	65	65
63	<b>799 300 381</b>	1.00	11	5.8	280	85	85
75	<b>799 300 382</b>	1.15	11	6.8	280	95	95



### Pipe end peeler RSE multi

- **Rotary peeler for reliable pipe preparation prior to electrofusion**
- Consisting of 1 adjustable basic tool and corresponding pipe inserts
- Applicable on pipe ends and spigot ends of fittings
- Applicable for straight and coiled pipes
- Applicable for metric pipes according to EN12201 und EN1555
- Applicable on pipe material: PE100RC, PE100, PE-Xa, PP
- Operation: manual or with cordless screwdriver
- Maximum peeling length = 75mm
- Peeling blade as reversing knife with 2 cutting edges
- Delivery in a solid transport case (depending on selected product)



d (mm)	d1 (mm)	Code	Weight (kg)	Description	SDR	e (mm)	L (mm)	B (mm)	H (mm)
20	75	<b>799 300 350</b>	0.58	Basic tool + box			280	95	98
20	75	<b>799 300 351</b>	1.45	Basic tool + case			391	304	134
20	75	<b>799 300 352</b>	1.88	Basic tool+case+d32+d63			391	304	134
20		<b>799 300 356</b>	0.05	Insert RSE	11	2.0	45	20	20
25		<b>799 300 357</b>	0.10	Insert RSE	11	2.3	45	25	25
32		<b>799 300 358</b>	0.10	Insert RSE	11	3.0	50	30	30
40		<b>799 300 359</b>	0.10	Insert RSE	11	3.7	50	40	40
50		<b>799 300 360</b>	0.20	Insert RSE	11	4.6	60	50	50
63		<b>799 300 361</b>	0.33	Insert RSE	11	5.8	60	60	60
75		<b>799 300 362</b>	0.47	Insert RSE	11	6.8	60	70	70
20	75	<b>799 300 347</b>	0.01	Blade RSE			18	18	10
20	75	<b>790 308 259</b>	0.04	Handle RSE			90	28	28
20	75	<b>790 308 312</b>	0.87	Case RSE multi			391	304	134



### Peeling tool PT 2

- Scope of delivery: 1 tool (size 1, 2 or 3) in a metal carrying case.
- 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.

d-d (mm)	Code	Weight (kg)	Description
63 - 250	<b>799 300 752</b>	7.500	Size 1, peeling length 140 mm
110 - 400	<b>799 300 755</b>	9.900	Size 2, peeling length 150 mm
110 - 500	<b>799 300 756</b>	10.500	Size 3, peeling length 175 mm



PT 2

### Replacement blade for peeling tool PT 2

d-d (mm)	Code	Weight (kg)	Description
63 - 500	<b>799 150 355</b>	0.008	Replacement blade, 1 piece



### Peeling tool RTC

- **Rotary peeler for reliable pipe preparation prior to electrofusion**
- Applicable on pipe ends and spigot ends of fittings
- **Scope of delivery 315:** 1 Scraper arm, 1 Self-centering chuck base, 1 Aluminium transport case
- **Scope of delivery 710:** 1 Scraper arm, 1 Self-centering chuck base, 2 Aluminium transport case

d-d (mm)	Code	Weight (kg)	Description
75 - 315	<b>799 150 423</b>	9.616	max. working-range 185 mm
355 - 710	<b>799 300 757</b>	31.400	max. working-range 530 mm



### Replacement blade for peeling tool RTC

d-d (mm)	Piece	Code	Weight (kg)	Description
355 - 710	1	<b>799 300 586</b>	0.020	Replacement blade, 1 piece



### Hand scraper

- The Hand Scraper can be used to prepare the fusion zone on PE80 pipes.

Code	Weight (kg)	Description
<b>799 198 094</b>	0.143	Hand scraper with long handle



### Marker

Type	Code	Weight (kg)
silver	<b>799 350 364</b>	0.010

---



# Tapping tools



## Assembly and tapping key for saddles

- Combination tool for tapping and tightening of fixation screws.

Type	Code	Weight (kg)	Description
8/10/17	<b>799 198 047</b>	0.798	For all saddles



## Tapping key for saddles

- With adjustable tapping depth.

Type	Code	Weight (kg)	Description
WS - 10	<b>799 198 080</b>	0.114	for Monobloc d 40 mm and d 50 mm
WS - 17	<b>799 198 079</b>	0.556	for Monobloc d 63 mm, d 90 - 160 mm and all Duobloc saddles
WS - 12.7	<b>799 198 091</b>	0.600	for spigot saddle with cutter



## Hexagon key for saddles and branch fittings

- For tightening fixation screws.

Type	Code	Weight (kg)	Description
SW8	<b>799 150 378</b>	0.129	For all saddles and branch fittings



## Tapping Adapter for 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	Weight (kg)	Description
S 54	<b>799 100 061</b>	0.785	for Tapping Tee d 32 mm
S 67	<b>799 100 062</b>	1.011	for Tapping Tee d 63 mm



### Pressure test cap for Tapping saddles

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

Type	Code	Weight (kg)	Description
M	<b>799 199 282</b>	0.116	for Monobloc d 40 mm and d 50 mm
S 54	<b>799 199 283</b>	0.260	for Tapping Tee d 20 - 40 mm
S 67	<b>799 199 286</b>	0.430	for Tapping Tee outlet d 63 mm
MB	<b>799 199 287</b>	0.037	for Monobloc d63-160 mm and Branch saddle outlet d160/225 mm



### Core cutter set for PE pipes

- Suitable for drilling of pressureless PE pipes
- Set includes core cutter, centre drill, adapter SDS max, ejector rod and transport box
- Suitable for branch saddle with spigot outlet (193135202 - 748)
- Core cutter is especially developed for plastic material
- Enables quick drilling
- Cutout stays in the core cutter

**Technical information:** **Core cutter:** L = 300 mm; d= spigot outlet fitting in mm; d1= spot boring diameter in mm; Max. wall thickness = 120 mm, **Pilot drill:** d = 14mm; L = 400 mm, **Ejector rod:** d = 12mm; L = 500 mm, **Connection drill machine:** SDS max, **Connection core cutter:** G 1/2" (female thread) d160, 225, 315; G 1 1/4" (female thread) d500, **Machine suggestion:** Effective power minimum 100 watt; Rotation speed 100-200 rpm

d (mm)	d1 (mm)	Code	Weight (kg)	Description
160	123	<b>799 198 101</b>	7.200	Core cutter set in transport box
225	172	<b>799 198 102</b>	10.000	Core cutter set in transport box
315	238	<b>799 198 103</b>	13.400	Core cutter set in transport box
500	420	<b>799 198 104</b>	34.000	Core cutter set in transport box



### Transport box for Core cutter set

- Suitable for core cutter set (799198101 - 104)

d (mm)	Description	Code	Weight (kg)
160	Transport box 160; 565x170x180mm	<b>799 198 121</b>	3.900
225	Transport box 225; 565x220x230mm	<b>799 198 122</b>	4.700
315	Transport box 315; 280x280x565mm	<b>799 198 123</b>	7.500
500	Transport box 500; 465x465x565mm	<b>799 198 124</b>	9.000



### Drill stand for Core cutter set

- Suitable for safe and guided drilling of pressureless PE pipes
- Set includes drill stand, drilling machine, extension arm and standtracks
- Suitable for branch saddle with spigot outlet (193135402 - 748)
- Suitable for core cutter set (799198101 - 104)
- Tension belts for the fixation of the drill stand onto the PE pipe are not included in scope of delivery
- Use of Core cutters 160/225/315 requires additionally adaptor 1 1/4" - 1/2" (799198138)
- In case of using the pilot drill for core cutters 160/225/315 adaptor 1/2" M - 1/2" F (799198106) is required

Description	Code	Weight (kg)
Drill stand BS400 with vulcanised-rubber bonded standtracks. Extension arm suitable for branch saddle 4-drift drill machine D38-BB	<b>799 198 137</b>	68.000



### Accessories for Core cutter set

- Suitable for core cutter set (799198101 - 104)

Description	Code	Weight (kg)
Pilot drill d = 14mm; L = 365 mm	<b>799 198 133</b>	0.300
Ejector rod d = 12mm; L = 500 mm	<b>799 198 131</b>	0.450
Adaptor 1 1/4" UNC-R- 1/2"	<b>799 198 138</b>	0.520
Adaptor drill chuck 13	<b>799 198 105</b>	0.160
Adaptor thread	<b>799 198 106</b>	0.180
Adaptor SDS-max	<b>799 198 107</b>	0.300

# Clamps and installation aids

## Swivel clamp



- The Swivel Clamp centralises pipes with dimensions from d63 to 180 mm automatically. Suitable for coupler connections as well as reductions and bends. The 15° adjustment makes an exact positioning from 15° to 90° possible.

d-d (mm)	Code	Weight (kg)
63 - 180	<b>799 350 358</b>	13.000

## Double clamp



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

d-d (mm)	Code	Weight (kg)
63 - 125	<b>799 301 484</b>	3.506
110 - 225	<b>799 301 486</b>	7.918
225 - 500	<b>799 301 488</b>	14.735



## 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 V-clamps complete with ratchet and belt.

d-d (mm)	Code	Weight (kg)
63 - 125	<b>799 301 459</b>	7.142
110 - 225	<b>799 301 461</b>	16.490
225 - 500	<b>799 301 463</b>	28.500





### Double clamp with universal link

- Recommended for the installation of fittings COOL-FIT and ELGEF Plus
- The clamping allows installation without tension and avoids movement during fusion and cooling time
- The centrally located adjustable universal link allows installation of electrofusion couplers, elbows and reducers
- Works above, below and alongside the joint
- Adaptor for use with Tee-pieces available (see accessories)

d (mm)	d1 (mm)	Code	Weight (kg)	Description	L (mm)	B (mm)	H (mm)
40	200	<b>799 301 490</b>	4.200	Scope of delivery: 2 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (600x380x250)	960	290	230
160	630	<b>799 301 496</b>	14.100	Scope of delivery: 2 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (780x780x580)	1300	670	550



### Quadruple clamp with universal link

- Recommended for the installation of fittings COOL-FIT and ELGEF Plus
- The clamping allows installation without tension and avoids movement during fusion and cooling time
- The centrally located adjustable universal link allows installation of electrofusion couplers, elbows and reducers
- Universal use; works above, below and alongside the joint
- Adaptor for use with Tee-pieces available (see accessories)

d (mm)	d1 (mm)	Code	Weight (kg)	Description	L (mm)	B (mm)	H (mm)
40	200	<b>799 301 489</b>	8.300	Scope of delivery: 4 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (600x380x250)	960	290	230
160	630	<b>799 301 495</b>	23.300	Scope of delivery: 4 x V-block, 2 x Straight bar, 1 x Universal link, Transport bag (780x780x580)	1300	670	550



### Tee adaptor

- Suitable for clamping tool (799301489 - 495)

d (mm)	d1 (mm)	Code	Weight (kg)	Description	L (mm)	B (mm)	H (mm)
40	200	<b>799 301 491</b>	0.610	Tee adaptor	600	50	40
160	630	<b>799 301 497</b>	3.500	Tee adaptor	1070	75	60



### V-block

- Suitable for clamping tool (799301489 - 495)

d (mm)	d1 (mm)	Code	Weight (kg)	Description	L (mm)	B (mm)	H (mm)
40	200	<b>799 301 492</b>	1.000	V-block complete	290	230	65
160	630	<b>799 301 498</b>	3.200	V-block complete	660	430	90



### Bar extension

- Suitable for clamping tool (799301489 - 495)

d (mm)	d1 (mm)	Code	Weight (kg)	Description	L (mm)	B (mm)	H (mm)
160	630	<b>799 301 499</b>	1.000	Bar extension	1000	40	40



### 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	Weight (kg)
20	<b>799 301 536</b>	0.658
25	<b>799 301 537</b>	0.471
32	<b>799 301 538</b>	0.756
40	<b>799 301 539</b>	1.079
50	<b>799 301 540</b>	1.326
63	<b>799 301 541</b>	1.618



### 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	Weight (kg)
20 - 63	<b>799 301 575</b>	0.800



### 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	Weight (kg)	Description
25 - 20	<b>799 150 385</b>	0.500	Inserts, Sets
32 - 20	<b>799 150 386</b>	0.500	Inserts, Sets
32 - 25	<b>799 150 387</b>	0.500	Inserts, Sets
40 - 32	<b>799 150 388</b>	0.500	Inserts, Sets
50 - 40	<b>799 150 389</b>	0.500	Inserts, Sets
63 - 32	<b>799 150 390</b>	0.500	Inserts, Sets
63 - 40	<b>799 150 391</b>	0.500	Inserts, Sets
63 - 50	<b>799 150 392</b>	0.500	Inserts, Sets

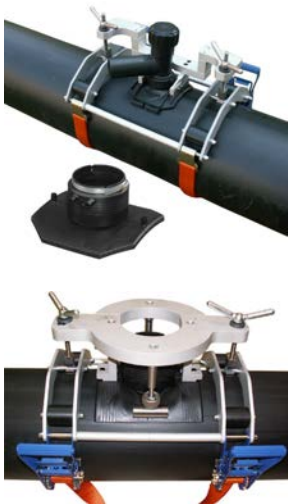




### Clamping device topload 400

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm.
- Scope of delivery: 1 base mounting clamp, 1 bracket, 2 clamping screws, 2 ratchet straps, 1 transport box

d-d (mm)	Code	Weight (kg)
280 - 400	<b>799 350 475</b>	20.000



### Clamping device topload 630

- This clamp and mounting tool is used for top-load Saddles on pipes of dimensions d 280 - 400 mm and branch fittings for dimensions d 280 mm – 630 mm.
- Scope of delivery: 1 base mounting clamp, 1 clamping attachment, 1 bracket, 2 clamping screws, 2 ratchet straps, 1 transport box

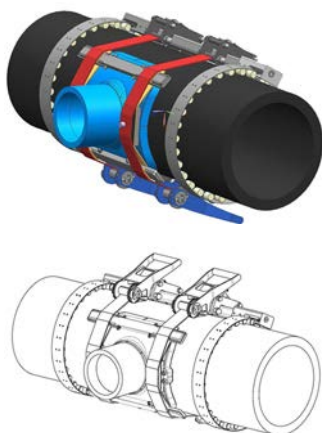
d-d (mm)	Code	Weight (kg)
280 - 630	<b>799 350 477</b>	28.400



### Clamping attachment topload 630

- Clamping attachment as single part for extension of Topload tool 400 (799 350 475)
- Suitable for Branch fittings dimension d 280 mm – 630 mm

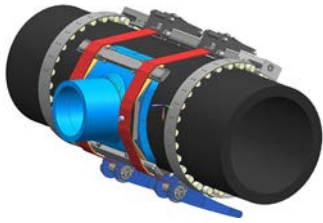
d-d (mm)	Code	Weight (kg)
280 - 630	<b>799 350 476</b>	11.343



### Installation set Topload TL 225

- Suitable for branch saddle d315-1000mm with spigot outlet d160/d225
- Use of set is mandatory for the installation of branch saddles
- Set includes frame with tension belts, peeling tool, clamp and transport box
- Patent pending

Code	Weight (kg)
<b>799 300 807</b>	48.000

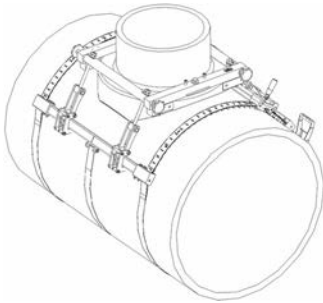


### Installation set Topload TL 500

- Suitable for branch saddle d450-2000mm with spigot outlet d500
- Use of set is mandatory for the installation of branch saddles
- Set includes frame with tension belts, peeling tool, clamp for outlet d315mm/500mm and transport box
- Patent pending

**Code Weight**  
(kg)

**799 300 809 124.000**



### Accessories / single parts for Installation set Topload

**Description Code Weight**  
(kg)

Transport box TL 225 (860x700x180)	<b>799 300 923</b>	18.500
Frame TL 225 incl. tension belt up to 1000mm	<b>799 300 820</b>	14.000
Peeling tool TL 225	<b>799 300 835</b>	5.600
Clamp TL 225	<b>799 300 920</b>	9.900
Peel cutter TL	<b>799 300 831</b>	0.066





# Squeeze-off and rerounding tools

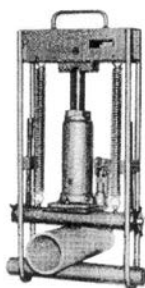


## Squeeze-off tool type S1

- This mechanical device is used to squeeze-off PE pipes during repair and extension work. In order not to over-stress the pipe, the tool is equipped with adjustable end stops for SDR 11 (ISO S5) pipes. Due to different wall thickness` of the pipes, the squeezing degree may differ up to 0,8.

d-d (mm)	Code	Weight (kg)	Description
20 - 63	<b>799 350 107</b>	4.901	S1 for PE pipes SDR 11

## Squeeze-off tool type S2



- This mechanical device is used to squeeze off PE pipes during repair and extension work. In order not to over-stress the pipe, the tool is equipped with adjustable end stops for SDR 11 (ISO S5) and SDR 17 (ISO S8) pipes.

d-d (mm)	Code	Weight (kg)	Description
63 - 180	<b>799 350 108</b>	36.500	S2 for PE pipes SDR 11 and SDR 17; Jack Force: 15 t



## Squeeze-off tool A25

- This mechanical device is used to squeeze off PE pipes during repair and extension work. In order not to over-stress the pipe, the tool is equipped with adjustable end stops for SDR 11 (ISO S5) and SDR 17 (ISO S8) pipes.

d-d (mm)	Code	Weight (kg)	Description
160 - 250	<b>799 350 270</b>	60.000	A25 for PE pipes SDR 11 and SDR 17; Jack Force: 25 t



## Re-rounding tool

- Re-rounding tools are used to re-round oval pipes during fusion as well as during the cooling time.

d (mm)	Code	Weight (kg)	Description
25	<b>799 199 127</b>	0.577	Type nut cracker
32	<b>799 199 128</b>	0.500	Type nut cracker
40	<b>799 199 129</b>	1.500	Type nut cracker
50	<b>799 199 130</b>	1.616	Type nut cracker
63	<b>799 199 131</b>	0.742	Type hinged collar
75	<b>799 199 132</b>	0.791	Type hinged collar
90	<b>799 199 133</b>	1.690	Type hinged collar
110	<b>799 199 134</b>	1.537	Type hinged collar
125	<b>799 199 135</b>	1.917	Type hinged collar
160	<b>799 199 137</b>	2.318	Type hinged collar

table continued on the next page

d (mm)	Code	Weight (kg)	Description
180	<b>799 199 138</b>	2.493	Type hinged collar
200	<b>799 199 139</b>	2.500	Type split collar
225	<b>799 199 140</b>	3.361	Type split collar
250	<b>799 199 141</b>	1.872	Type split collar



### Re-rounding tool

- Enables mechanical re-rounding of out-of-roundness PE pipes for fusion preparation
- Recommended for installation of electrofusion couplers and electrofusion saddles
- We generally recommend the use of 2 re-rounding tools (1 x left and 1 x right of the installed fitting)
- Facilitates the installation and improves connection quality
- Pipe ovality before re-rounding max. 6% at +20°C (3% at ambient temperature of 0°C)
- Required ringspanner is not included in scope of delivery

<sup>1</sup> Material: Galvanized steel, Scope of delivery: 2 x Crossbar, 2 x Spindle, 2 x Nut AF 30, 2 x Spindle protection, Transport box

<sup>2</sup> Material: Aluminium, Scope of delivery: 2 x Crossbar, 2 x Spindle, 2 x Nut AF 55, 2 x Spindle protection

	d (mm)	d1 (mm)	Code	Weight (kg)	L (mm)	B (mm)	H (mm)
1	280	450	<b>799 350 688</b>	25.000	650	290	260
1	450	630	<b>799 350 689</b>	38.000	830	290	260
1	630	900	<b>799 350 690</b>	49.000	1100	290	260
2	900	1400	<b>799 350 695</b>	192.300	2000	650	600
2	1400	2000	<b>799 350 696</b>	254.200	2650	650	600



### Pipe gauge

- Pipe gauge enables check of pipe ovality on existing pipelines
- Applicable on any user-defined spot within the pipeline
- Strongly recommended for all installations of brach saddles on pipes d315mm and above (193135402-748)
- Plug gauge (799350659) for exact measuring of out-of roundness deviations is not included in scope of delivery
- Material: aluminium

d (mm)	Code	Weight (kg)
315	<b>799 350 660</b>	0.271
355	<b>799 350 661</b>	0.255
400	<b>799 350 662</b>	0.257
450	<b>799 350 663</b>	0.245
500	<b>799 350 664</b>	0.334
560	<b>799 350 665</b>	0.324
630	<b>799 350 666</b>	0.319
710	<b>799 350 667</b>	0.310
800	<b>799 350 668</b>	0.311
900	<b>799 350 669</b>	0.425
1000	<b>799 350 670</b>	0.420
1200	<b>799 350 671</b>	0.413
1400	<b>799 350 672</b>	0.410
1600	<b>799 350 673</b>	0.407
2000	<b>799 350 674</b>	0.403



### Pipe gauge set

- Pipe gauge set enables check of pipe ovality on existing pipelines
- Applicable on any user-defined spot within the pipeline
- Strongly recommended for all installations of brach saddles on pipes d315mm and above (193135402-748)
- Scope of delivery: Pipe gauges of listed dimension range; plug gauge (799350659) for exact measuring of out-of roundness deviations
- Each with 1 pipe gauge per main dimension
- Material: aluminium

d (mm)	d1 (mm)	Code	Weight (kg)	Description
315	450	<b>799 350 681</b>	0.800	Pipe gauge set 1; 4 pipe gauges, 1 plug gauge
500	630	<b>799 350 682</b>	1.070	Pipe gauge set 2; 3 pipe gauges, 1 plug gauge
710	1000	<b>799 350 683</b>	1.610	Pipe gauge set 3; 4 pipe gauges, 1 plug gauge
1200	2000	<b>799 350 684</b>	1.810	Pipe gauge set 4; 4 pipe gauges, 1 plug gauge
315	2000	<b>799 350 685</b>	12.200	Pipe gauge set complete; 15 pipe gauges, 1 plug gauge, 1 transport box



### Single parts for pipe gauge

- Suitable for pipe gauge (799350660 - 685)

d (mm)	d1 (mm)	Code	Weight (kg)	Description
315	2000	<b>799 350 659</b>	0.112	For exact measuring of out-of roundness deviations
		<b>799 350 686</b>	7.000	Empty transport box for all pipe gauge set (1+2+3+4)

# Plastic pipe cutters and accessories



## PPC Plastic pipe cutter

For cutting plastic pipes d10 - d160

d-d (mm)	Article	Code	Weight (kg)	Closest inch (inch)
10 - 63	PPC 63, s max. = 7.2mm	<b>790 109 001</b>	0.865	1/8 - 2
50 - 110	PPC 110, s max. = 12.7mm	<b>790 109 002</b>	1.624	1 1/2 - 4
110 - 160	PPC 160, s max. = 19.0mm	<b>790 109 003</b>	2.212	4 - 6



## Replacement cutting wheels

For plastic pipe cutter

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



## Rotary Pipe Cutter d63-200 mm

- Tool for simple right angle precision cutting of plastic pipe with a wall thickness up to 12 mm PVDF/PVC and up to 20 mm PP/PE --> blade for PP/PE must be ordered separately (Code 790109861)
- Including transport box

d-d (mm)	Code	Weight (kg)
63 - 200	<b>790 109 850</b>	7.000



## Rotary Pipe Cutter d90-315 mm

- Tool for simple right angle precision cutting of plastic pipe with a wall thickness up to 15 mm PVDF/PVC and up to 30 mm PP/PE --> blade for PP/PE must be ordered separately (Code 790109861)
- Including transport box

d-d (mm)	Code	Weight (kg)
90 - 315	<b>790 109 851</b>	5.000



### Knife for Rotary Pipe Cutter d63-200 and d90-315 for PP/PE pipe

d-d (mm)	Code	Weight (kg)
63 - 315	<b>790 109 861</b>	0.050



### KS 355 Plastic pipe cutter

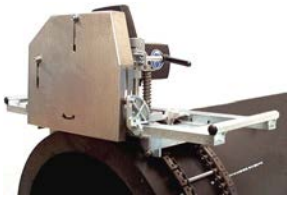
- The KS 355 is the ideal tool for right-angled cuts with no misalignment of PE, PP and PVC pipes
- Pipe outer dimension from 160 – 355 mm, wall-thickness from 8 – 40 mm
- Unique clamping mechanism, no additional tools like belts, chains or reduction inserts necessary
- Weight of the saw: 13,0 kg
- Supplied with transport box: Dimension 700 x 350 x 500 mm; Weight 17,0 kg

d-d (mm)	Code	Weight (kg)	Power
160 - 355	<b>790 202 001</b>	35.000	1750 W; 230 V; 50/60 Hz



### Replacement saw blade Ø 180x30 for KS 355

Code	Weight (kg)
<b>790 202 011</b>	0.450



### Plastic pipe cutter

- The easy handling and an optimal safety do make the saw indispensable on each construction site
- Motor hand-circular saw with chain guiding
- The machine consists of a motorized hand saw, with guide carriage and tensioning chain for each pipe diameter
- The tensioning chain is to be out around the pipe and tightened by means of the chain tensioner. The carriage is applied with the hand circular saw. The pipe is cut by moving the carriage around the pipe.
- A quick, clean and right angled cut is the result

The KS 1600 is used for cutting plastic pipes fast, cleanly and properly right-angled from diameter 500 mm up to 1600 mm with a wall thickness of max. 60 mm. For each pipe diameter, the appropriate chain length is necessary. The saw is to be put on the tensioned chain as per user manual which serves as a guiding device for the saw over a full 360° turn.

The guard plate covers the saw blade also during operation and provides full protection for the user at all times.

The KS 1600 basic kit consists of a circular-hand saw, 230 V / 2200 W with carriage, 2 tension chains for d560 mm and d630 mm as well as a chain tensioner. The whole equipment comes in a convenient and robust transport box.

The easy handling and the optimal safety features make this tool indispensable on every building site.

#### Scope of delivery:

1 Circular-hand saw, 1 tensioning chain d560 mm, 1 tensioning chain d630 mm, 1 chain tensioner, 1 hex-wrench size 5, 1 hex-wrench size 6, 1 operating instruction, transport-box

#### Technical data:

Dimension range:	d500 –1600 mm (In combination with the respective tensioning chain)
Plug:	EU-Plug
Voltage:	230 V AC
Power:	2200 Watt
Frequency:	50-60 Hz
Circular saw blade outer-Ø:	240 mm
RPM:	4100
Sound level:	104 dB (A)
Weight saw:	15, 5 kg
Weight KS 1600 Basic-Kit:	43,5 kg
Dimensions saw (WxHxD):	790 x 330 x 335 mm
Dimensions Transport-Box:	950 x 400 x 395 mm

d-d (mm)	Type	Code	Weight (kg)
500 - 1600	KS 1600 Basic Kit	<b>790 109 600</b>	43.000



### Chain tensioner

- Chain tensioner is included in the scope of delivery of the KS 1600 Basic Kit (790 109 600).

d-d (mm)	Code	Weight (kg)
500 - 1600	<b>790 109 616</b>	0.400





### Replacement saw blade for KS 1600

description	Code	Weight (kg)
Saw Blade 250X3.5X3.0, 18 teeth punched	<b>790 109 618</b>	0.653

---

# Soil & waste

Soil & waste	Page
	Waviduo couplers 105
	Electrofusion units and accessories 106



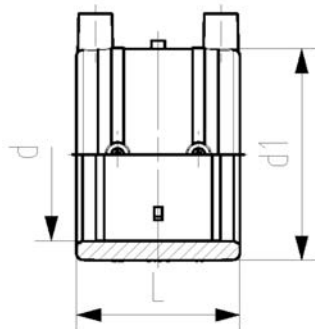


# Waviduo couplers



## Electrofusion Coupler

- PE SDR 26 (ISO 12.5)
- 4 bar Water
- 2 mm pin connectors
- Limited path fusion indicators
- Removable centre stop



d (mm)	Code	Weight (kg)	d1 (mm)	L (mm)	SDR pipe
40	<b>701 224 053</b>	0.060	55.0	60	26-33
50	<b>701 224 055</b>	0.070	65.5	60	26-33
56	<b>701 224 056</b>	0.080	71.5	60	26-33
63	<b>701 224 057</b>	0.090	79.0	60	26-33
75	<b>701 224 058</b>	0.100	92.0	60	26-33
90	<b>701 224 059</b>	0.140	108.0	60	26-33
110	<b>701 224 060</b>	0.170	129.0	60	26-33
125	<b>701 224 061</b>	0.190	145.0	60	26-33
160	<b>701 224 062</b>	0.337	183.0	65	26-33
200	<b>701 224 073</b>	1.083	226.0	150	26-33
250	<b>701 224 074</b>	1.456	271.3	150	26-33
315	<b>701 224 075</b>	2.050	343.2	150	26-33

# Electrofusion unit and accessories



## Automatic electrofusion unit DUO 315 System WAVIDUO

Automatic, constant current electro fusion unit  
Fittings for pipe SDR26 and SDR33  
Easy to handle with start/stop button  
High safety due to additional main switch  
Clearly laid out LED-display with fusion process indication  
Measuring of ambient temperature and fusion time compensation  
Handy and robust plastic housing  
Exchangeable fusion cable according to fusion current  
Serial fusion mode up to d160 mm; Serial cable 701.109.029 (not in the scope of delivery)  
RoHS conform (Restriction of the use of certain hazardous substances)  
Scope of delivery includes: fusion unit, 1 Fusion cable DUO 40-160 mm (green/ 2mm/5 A), 1 Fusion cable DUO 200-315 mm (green/2 mm/10 A), 1 Main cable DUO 40-315 mm, 1 Carrying strap blue (L=1.30 m), 1 Metal transport box (blue), 1 Operating manual (multilingual)

### Technical Data:

- Operating temperature: -10°C to 45°C
- Main voltage: 230V(+/-20%) 184V - 276V
- Mains frequency: 40 Hz - 60 Hz
- Fusion current: 5 Ampere (A), 10 Ampere (A)
- Fuses input: primary 10 AT
- Max. absorbed power: 2500 W
- Protection 1 / IP 65
- Mains cable: 5.0 m
- Fusion cable: 2 m
- Dimensions unit: 230 x 120 x 70 mm
- Dimension transport box: 405 x 290 x 140 mm
- Weight incl. cables: 1.3 kg
- Weight transport box: 2.8 kg
- Display: LED-display
- Warranty 12 months

Type	Code	Weight (kg)
DUO 315 EU 230V	701 109 026	2.800



## Accessories for automatic Electrofusion unit DUO 315 System WAVIDUO

For fusion of electrofusion fittings WAVIDUO d40-315mm.

### Technical data

Mode green	Fittings d40-160mm Pin connector Size: 2 mm Fusion current: 5 A L = 2.0m Colour: green
Mode brown	Fittings d200-315mm Pin connector Size: 2 mm Fusion current: 10 A L = 2.0m Colour: brown
Mode green, Serial	Fittings d40-160mm Pin connector Size: 2 mm Fusion current: 5 A L = 1.0m Colour: green

Type	Code	Weight (kg)	Description
Mode green	<b>701 109 027</b>	0.300	Fusion cable DUO 40-160mm (2mm); 5 A
Mode brown	<b>701 109 028</b>	0.300	Fusion cable DUO 200-315mm (2mm); 10 A
Mode green, Serial	<b>701 109 029</b>	0.300	Serial fusion cable DUO 40-160mm (2mm); 5 A
Transport box	<b>701 109 030</b>	2.800	Transport box blue; empty fro replacement

# Index

Code	Page	Code	Page	Code	Page	Code	Page
160 050 520	34	193 130 284	28	193 131 504	25	193 135 244	40
160 050 521	34	193 130 287	28	193 131 505	25	193 135 252	40
160 050 522	34	193 130 294	28	193 131 507	25	193 135 254	40
160 050 523	34	193 130 297	28	193 131 512	25	193 135 262	40
160 050 620	34	193 130 304	28	193 131 513	25	193 135 264	40
160 050 621	34	193 130 307	28	193 131 514	25	193 135 272	40
160 050 622	34	193 130 314	28	193 131 515	25	193 135 274	40
160 050 623	34	193 130 317	28	193 131 517	25	193 135 282	41
173 103 056	35	193 130 324	28	193 131 522	25	193 135 284	41
173 103 075	35	193 130 327	28	193 131 523	25	193 135 289	40
173 103 076	35	193 130 334	28	193 131 524	25	193 135 290	40
173 103 077	35	193 130 337	28	193 131 525	25	193 135 291	40
173 103 080	35	193 130 347	28	193 131 527	25	193 135 294	41
173 103 082	35	193 130 357	28	193 131 532	25	193 135 304	41
173 103 083	35	193 130 377	28	193 131 533	25	193 135 309	40
173 103 084	35	193 131 037	22	193 131 534	25	193 135 310	40
173 103 175	36	193 131 047	22	193 131 535	26	193 135 311	40
173 103 176	36	193 131 057	22	193 131 537	26	193 135 329	40
173 103 177	36	193 131 067	22	193 131 547	26	193 135 330	40
173 103 185	36	193 131 077	22	193 131 557	26	193 135 331	40
173 103 186	36	193 131 087	22	193 131 577	26	193 135 339	40
173 103 187	36	193 131 097	22	193 131 867	26	193 135 340	40
193 103 040	33	193 131 107	22	193 131 877	26	193 135 341	40
193 103 042	33	193 131 117	22	193 132 506	25	193 135 436	41
193 103 043	33	193 131 127	22	193 132 516	25	193 135 446	41
193 103 044	33	193 131 137	22	193 132 526	25	193 135 456	41
193 103 045	33	193 131 147	22	193 132 536	26	193 135 466	41
193 103 206	33	193 131 157	22	193 133 067	22	193 135 476	41
193 103 207	33	193 131 177	22	193 133 097	22	193 135 486	41
193 103 208	33	193 131 234	27	193 135 009	39	193 135 496	41
193 103 209	33	193 131 237	27	193 135 010	39	193 135 506	41
193 103 210	33	193 131 244	27	193 135 019	39	193 135 676	41
193 103 211	33	193 131 247	27	193 135 020	39	193 135 686	41
193 103 212	33	193 131 254	27	193 135 029	39	193 135 696	41
193 103 213	33	193 131 257	27	193 135 030	39	193 135 698	41
193 103 214	33	193 131 264	27	193 135 039	39	193 135 706	41
193 104 039	33	193 131 267	27	193 135 040	39	193 135 708	41
193 104 042	33	193 131 274	27	193 135 041	39	193 135 716	41
193 130 037	29	193 131 277	27	193 135 049	39	193 135 718	41
193 130 047	29	193 131 284	27	193 135 050	39	193 135 726	41
193 130 057	29	193 131 287	27	193 135 051	39	193 135 728	41
193 130 067	29	193 131 294	27	193 135 059	39	193 135 736	42
193 130 077	29	193 131 297	27	193 135 060	39	193 135 738	42
193 130 087	29	193 131 304	27	193 135 061	39	193 135 746	42
193 130 097	29	193 131 307	27	193 135 069	39	193 135 748	42
193 130 107	29	193 131 314	27	193 135 070	39	193 149 437	28
193 130 117	29	193 131 317	27	193 135 071	39	193 149 447	28
193 130 127	29	193 131 324	27	193 135 079	39	193 149 457	28
193 130 137	29	193 131 327	27	193 135 080	39	193 149 467	28
193 130 147	29	193 131 334	27	193 135 081	39	193 149 477	28
193 130 157	29	193 131 337	27	193 135 159	40	193 149 487	28
193 130 177	29	193 131 347	27	193 135 160	40	193 149 497	28
193 130 234	27	193 131 357	27	193 135 161	40	193 149 507	28
193 130 237	27	193 131 377	27	193 135 202	40	193 149 517	28
193 130 244	27	193 131 434	23	193 135 204	40	193 149 527	28
193 130 247	27	193 131 482	25	193 135 212	40	193 149 537	28
193 130 254	27	193 131 483	25	193 135 214	40	193 149 547	28
193 130 257	27	193 131 484	25	193 135 222	40	193 149 557	28
193 130 264	27	193 131 485	25	193 135 224	40	193 149 577	28
193 130 267	27	193 131 487	25	193 135 232	40	193 280 880	43
193 130 274	27	193 131 502	25	193 135 234	40	193 280 881	43
193 130 277	27	193 131 503	25	193 135 242	40	193 281 027	43

# Index

Code	Page	Code	Page	Code	Page	Code	Page
193 281 153	23	701 224 059	105	701 479 364	19	701 485 234	46
193 281 434	23	701 224 060	105	701 479 365	19	701 485 235	46
701 109 026	106	701 224 061	105	701 480 475	75	701 485 240	57
701 109 027	107	701 224 062	105	701 480 476	75	701 485 241	57
701 109 028	107	701 224 073	105	701 480 477	75	701 485 242	57
701 109 029	107	701 224 074	105	701 480 478	75	701 485 243	57
701 109 030	107	701 224 075	105	701 480 479	75	701 485 244	57
701 130 432	24	701 281 113	23	701 480 480	75	701 485 245	57
701 130 434	24	701 281 152	23	701 480 481	75	701 485 246	57
701 130 452	24	701 471 752	10	701 480 482	75	701 485 247	57
701 130 454	24	701 471 753	10	701 480 483	75	701 485 248	57
701 130 462	24	701 471 754	10	701 480 489	75	701 485 249	57
701 130 464	24	701 471 755	10	701 480 490	75	701 485 250	57
701 130 472	25	701 471 756	10	701 480 491	75	701 485 251	57
701 130 474	25	701 471 757	10	701 480 492	75	701 485 252	57
701 130 492	25	701 471 758	10	701 480 493	75	701 485 253	57
701 130 494	25	701 471 759	10	701 480 494	75	701 485 254	57
701 131 405	25	701 473 803	71	701 485 080	9	701 485 255	57
701 131 412	23	701 473 804	71	701 485 081	9	701 485 260	66
701 131 413	23	701 473 805	72	701 485 082	9	701 485 261	66
701 131 414	23	701 473 806	71	701 485 083	9	701 485 262	66
701 131 422	23	701 473 807	72	701 485 084	9	701 485 263	66
701 131 423	23	701 473 808	72	701 485 085	9	701 485 264	66
701 131 424	23	701 473 809	71	701 485 086	9	701 485 265	66
701 131 437	25	701 473 810	71	701 485 087	9	701 485 266	66
701 131 444	25	701 473 811	71	701 485 106	8	701 485 267	66
701 131 445	25	701 473 812	71	701 485 110	8	701 485 268	66
701 131 447	25	701 473 813	71	701 485 111	8	701 485 269	66
701 131 932	24	701 473 814	72	701 485 112	8	701 485 271	66
701 131 933	24	701 474 382	75	701 485 113	8	701 485 272	66
701 131 934	24	701 474 383	75	701 485 114	8	701 485 273	66
701 131 952	24	701 474 386	75	701 485 115	8	701 485 274	66
701 131 953	24	701 474 387	75	701 485 116	8	701 485 275	66
701 131 954	24	701 474 388	75	701 485 130	8	701 485 278	63
701 131 955	24	701 474 390	75	701 485 200	47	701 485 279	63
701 131 956	24	701 474 391	75	701 485 201	47	701 485 280	63
701 131 957	24	701 474 392	75	701 485 202	47	701 485 281	63
701 131 962	24	701 474 393	75	701 485 203	47	701 485 282	63
701 131 963	24	701 474 394	75	701 485 204	47	701 485 283	63
701 131 964	24	701 474 395	75	701 485 205	47	701 485 284	63
701 131 965	24	701 474 396	75	701 485 206	47	701 485 285	63
701 131 966	24	701 474 397	75	701 485 207	47	701 485 286	63
701 131 967	24	701 474 398	75	701 485 208	47	701 485 287	63
701 131 972	24	701 474 399	75	701 485 209	47	701 485 288	63
701 131 973	24	701 474 400	75	701 485 211	47	701 485 289	63
701 131 974	24	701 474 401	75	701 485 212	47	701 485 290	63
701 131 975	24	701 477 983	72	701 485 213	47	701 485 291	63
701 131 976	24	701 477 984	72	701 485 214	47	701 485 292	63
701 131 977	24	701 477 985	72	701 485 220	46	701 485 293	63
701 131 992	24	701 477 986	72	701 485 221	46	701 485 294	63
701 131 993	24	701 477 987	72	701 485 222	46	701 485 295	63
701 131 994	24	701 477 988	72	701 485 223	46	701 485 296	63
701 131 995	24	701 477 989	72	701 485 224	46	701 485 297	63
701 131 996	24	701 477 990	72	701 485 225	46	701 485 298	63
701 131 997	24	701 477 992	72	701 485 226	46	701 485 299	63
701 132 436	25	701 477 993	72	701 485 227	46	701 485 300	63
701 132 446	25	701 477 994	72	701 485 228	46	701 485 301	63
701 224 053	105	701 477 995	72	701 485 229	46	701 485 302	63
701 224 055	105	701 479 360	19	701 485 230	46	701 485 303	63
701 224 056	105	701 479 361	19	701 485 231	46	701 485 304	63
701 224 057	105	701 479 362	19	701 485 232	46	701 485 305	63
701 224 058	105	701 479 363	19	701 485 233	46	701 485 306	63

# Index

Code	Page	Code	Page	Code	Page	Code	Page
701 485 307	63	701 485 422	64	701 485 636	14	701 485 839	16
701 485 308	63	701 485 423	64	701 485 639	15	701 485 840	16
701 485 309	63	701 485 435	60	701 485 640	15	701 485 841	16
701 485 310	63	701 485 436	60	701 485 646	14	701 485 842	16
701 485 311	63	701 485 439	60	701 485 656	16	701 485 843	16
701 485 312	63	701 485 440	60	701 485 659	16	701 485 844	16
701 485 313	63	701 485 443	60	701 485 661	16	701 485 845	16
701 485 321	59	701 485 447	60	701 485 715	8	701 485 849	13
701 485 324	59	701 485 459	71	701 485 716	8	701 485 851	13
701 485 325	59	701 485 460	71	701 485 717	8	701 485 853	13
701 485 326	59	701 485 461	71	701 485 718	8	701 485 854	12
701 485 327	59	701 485 462	71	701 485 719	8	701 485 858	12
701 485 328	59	701 485 463	70	701 485 720	8	701 485 859	12
701 485 329	59	701 485 464	70	701 485 725	8	701 485 860	18
701 485 338	59	701 485 465	70	701 485 726	8	701 485 861	18
701 485 340	58	701 485 466	70	701 485 729	8	701 485 862	18
701 485 342	58	701 485 467	70	701 485 735	10	701 485 863	19
701 485 343	59	701 485 468	70	701 485 736	10	701 485 864	19
701 485 344	59	701 485 469	71	701 485 737	10	701 485 865	19
701 485 346	59	701 485 470	70	701 485 738	10	701 485 866	19
701 485 348	59	701 485 471	70	701 485 739	10	701 485 867	19
701 485 349	58	701 485 472	71	701 485 740	10	701 485 868	19
701 485 367	47	701 485 473	71	701 485 741	10	701 485 869	19
701 485 368	47	701 485 474	70	701 485 750	16	701 485 880	18
701 485 369	47	701 485 475	71	701 485 771	15	701 485 881	18
701 485 370	47	701 485 476	70	701 485 772	15	701 485 882	19
701 485 371	47	701 485 477	71	701 485 773	15	701 485 883	19
701 485 372	47	701 485 516	58	701 485 774	15	701 485 884	19
701 485 373	47	701 485 517	58	701 485 775	15	701 485 885	19
701 485 374	47	701 485 519	58	701 485 776	15	701 485 886	19
701 485 377	46	701 485 520	58	701 485 777	14	701 485 911	18
701 485 378	46	701 485 560	19	701 485 778	14	701 485 912	18
701 485 379	46	701 485 561	19	701 485 779	14	701 485 913	18
701 485 380	46	701 485 562	19	701 485 790	12	701 485 914	18
701 485 381	46	701 485 563	19	701 485 791	12	701 485 915	18
701 485 382	46	701 485 564	19	701 485 795	13	701 485 916	18
701 485 383	46	701 485 565	19	701 485 796	13	701 485 917	18
701 485 384	46	701 485 570	71	701 485 799	16	701 485 918	18
701 485 387	57	701 485 571	71	701 485 803	13	701 485 919	18
701 485 388	57	701 485 572	71	701 485 804	13	701 485 920	18
701 485 389	57	701 485 573	71	701 485 805	13	701 485 922	18
701 485 390	57	701 485 574	71	701 485 806	13	701 485 923	18
701 485 391	57	701 485 575	71	701 485 811	12	701 485 924	18
701 485 392	57	701 485 600	14	701 485 812	12	701 485 925	18
701 485 393	57	701 485 601	14	701 485 813	12	701 485 926	18
701 485 394	57	701 485 602	16	701 485 814	12	701 485 927	18
701 485 397	66	701 485 603	12	701 485 815	12	701 485 928	18
701 485 398	66	701 485 604	13	701 485 816	12	701 485 936	17
701 485 399	66	701 485 616	16	701 485 821	14	701 485 937	17
701 485 401	66	701 485 617	12	701 485 822	14	701 485 938	17
701 485 402	66	701 485 618	12	701 485 823	14	701 485 939	17
701 485 403	66	701 485 619	12	701 485 824	14	701 485 942	17
701 485 404	66	701 485 620	13	701 485 825	14	701 485 943	17
701 485 411	64	701 485 621	13	701 485 826	14	701 485 944	17
701 485 413	64	701 485 622	13	701 485 831	16	701 485 945	18
701 485 414	64	701 485 623	14	701 485 832	16	701 485 946	18
701 485 415	64	701 485 624	14	701 485 833	16	701 485 947	18
701 485 416	64	701 485 627	16	701 485 834	16	701 485 948	17
701 485 418	64	701 485 628	16	701 485 835	16	701 485 949	17
701 485 419	64	701 485 630	15	701 485 836	16	701 485 950	17
701 485 420	64	701 485 631	15	701 485 837	16	701 485 951	17
701 485 421	64	701 485 633	15	701 485 838	16	701 485 952	17

# Index

Code	Page	Code	Page	Code	Page	Code	Page
701 485 953	17	701 488 940	31	701 585 063	58	727 700 523	73
701 485 954	17	701 488 941	31	701 585 100	63	727 700 524	73
701 485 955	17	701 488 942	31	701 585 103	63	727 700 525	73
701 485 972	19	701 488 943	31	701 585 104	63	727 700 716	73
701 485 973	19	701 488 944	31	701 585 115	63	727 700 717	73
701 485 974	19	701 488 945	32	701 585 125	63	727 700 718	73
701 488 700	30	701 488 946	32	701 585 542	60	727 700 719	74
701 488 701	30	701 488 947	32	701 585 544	60	727 700 720	74
701 488 702	30	701 488 948	32	701 585 546	60	727 700 721	74
701 488 703	30	701 488 949	32	701 585 547	60	727 700 722	74
701 488 704	30	701 488 950	32	701 585 548	60	727 700 723	74
701 488 705	30	701 488 951	32	701 585 551	60	727 700 724	74
701 488 706	30	701 488 952	32	701 585 552	60	727 700 725	74
701 488 707	30	701 488 953	32	701 585 561	60	745 440 706	77
701 488 708	30	701 488 954	32	701 585 618	65	745 440 707	77
701 488 709	30	701 488 955	32	701 585 629	64	745 440 708	77
701 488 710	30	701 488 956	32	724 700 319	74	745 440 709	77
701 488 711	30	701 488 957	32	724 700 320	74	745 440 710	77
701 488 712	31	701 488 958	32	724 700 321	74	745 440 711	77
701 488 720	30	701 488 959	32	724 700 322	74	745 440 712	77
701 488 721	30	701 488 960	32	724 700 323	74	745 440 713	77
701 488 722	30	701 488 961	32	724 700 324	74	745 440 714	77
701 488 723	30	701 488 962	32	724 700 325	74	745 440 715	77
701 488 724	30	701 488 963	32	724 700 426	74	745 440 716	77
701 488 725	30	701 490 011	69	724 700 427	74	745 440 717	77
701 488 726	30	701 490 012	69	724 700 428	74	745 440 719	77
701 488 727	30	701 490 013	69	724 700 429	74	745 440 720	77
701 488 728	30	701 490 014	69	724 700 430	74	745 440 721	77
701 488 729	30	701 490 015	69	724 700 431	74	745 440 722	77
701 488 730	30	701 490 016	69	724 705 026	74, 75, 76	745 440 723	77
701 488 731	30	701 490 017	69	724 705 130	76	745 440 724	77
701 488 732	31	701 490 018	69	724 705 131	76	745 440 725	77
701 488 733	31	701 490 019	69	724 705 132	76	745 440 726	77
701 488 734	31	701 490 020	69	724 705 133	76	745 440 727	77
701 488 912	31	701 490 063	70	724 705 134	76	745 440 728	77
701 488 913	31	701 490 064	70	727 700 206	73	745 440 729	77
701 488 914	31	701 490 065	70	727 700 207	73	748 400 305	78
701 488 915	31	701 490 066	70	727 700 208	73	748 400 306	78
701 488 916	31	701 490 067	70	727 700 209	73	748 400 307	78
701 488 917	31	701 490 068	70	727 700 210	73	748 400 308	78
701 488 918	31	701 490 069	70	727 700 211	73	748 400 309	78
701 488 919	31	701 490 070	70	727 700 212	73	748 400 310	78
701 488 920	31	701 585 040	58	727 700 313	73	748 400 311	78
701 488 921	31	701 585 041	58	727 700 314	73	748 400 312	78
701 488 922	31	701 585 042	58	727 700 315	73	748 400 313	78
701 488 923	31	701 585 043	58	727 700 406	73	748 400 314	78
701 488 924	31	701 585 045	58	727 700 407	73	748 400 315	78
701 488 925	31	701 585 046	58	727 700 408	73	748 400 316	78
701 488 926	31	701 585 047	58	727 700 409	73	748 400 317	78
701 488 927	31	701 585 048	58	727 700 410	73	748 400 319	78
701 488 928	31	701 585 049	58	727 700 411	73	748 400 320	78
701 488 929	31	701 585 050	58	727 700 412	73	748 400 321	78
701 488 930	31	701 585 052	58	727 700 513	73	748 400 322	78
701 488 931	31	701 585 053	58	727 700 514	73	748 400 323	78
701 488 932	31	701 585 054	58	727 700 515	73	748 440 705	77
701 488 933	31	701 585 055	58	727 700 516	73	748 440 706	77
701 488 934	31	701 585 057	58	727 700 517	73	748 440 707	77
701 488 935	31	701 585 058	58	727 700 518	73	748 440 708	77
701 488 936	31	701 585 059	58	727 700 519	73	748 440 709	77
701 488 937	31	701 585 060	58	727 700 520	73	748 440 710	77
701 488 938	31	701 585 061	58	727 700 521	73	748 440 711	77
701 488 939	31	701 585 062	58	727 700 522	73	748 440 712	77

# Index

Code	Page	Code	Page	Code	Page	Code	Page
748 440 713	77	753 001 011	50	753 060 815	54	753 071 016	51
748 440 714	77	753 001 012	50	753 060 816	54	753 071 017	51
748 440 715	77	753 001 013	50	753 060 817	54	753 071 018	51
748 440 716	78	753 001 014	50	753 060 818	54	753 071 019	51
748 440 717	78	753 001 015	50	753 060 819	54	753 071 020	51
748 440 719	78	753 001 016	50	753 060 820	54	753 071 021	51
748 440 720	78	753 001 017	50	753 060 821	54	753 071 022	51
748 440 721	78	753 001 018	50	753 060 822	54	753 071 023	51
748 440 722	78	753 001 019	50	753 060 823	54	753 071 024	51
748 440 723	78	753 001 020	50	753 060 824	54	753 071 025	51
748 440 724	78	753 001 021	50	753 060 825	54	753 071 026	51
748 440 725	78	753 001 022	50	753 060 826	54	753 071 027	51
748 440 726	78	753 001 023	50	753 060 827	54	753 071 028	51
748 440 727	78	753 001 024	50	753 060 828	54	753 071 029	51
748 440 728	78	753 001 025	50	753 060 829	54	753 080 813	55
748 440 729	78	753 001 026	50	753 061 008	53	753 080 814	55
749 440 705	77	753 001 027	50	753 061 009	53	753 080 815	55
749 440 706	77	753 001 028	50	753 061 010	53	753 080 816	55
749 440 707	77	753 001 029	50	753 061 011	53	753 080 817	55
749 440 708	77	753 001 030	50	753 061 012	53	753 080 818	55
749 440 709	77	753 001 031	50	753 061 013	53	753 080 819	55
749 440 710	77	753 050 813	52	753 061 014	53	753 080 820	55
749 440 711	77	753 050 814	52	753 061 015	53	753 080 821	55
749 440 712	77	753 050 815	52	753 061 016	53	753 080 822	55
749 440 713	77	753 050 816	52	753 061 017	53	753 080 823	55
749 440 714	77	753 050 817	52	753 061 018	53	753 080 824	55
749 440 715	77	753 050 818	52	753 061 019	53	753 080 825	55
749 440 716	78	753 050 819	52	753 061 020	53	753 080 826	55
749 440 717	78	753 050 820	52	753 061 021	53	753 080 827	55
749 440 719	78	753 050 821	52	753 061 022	53	753 080 828	55
749 440 720	78	753 050 822	52	753 061 023	53	753 080 829	55
749 440 721	78	753 050 823	52	753 061 024	53	753 081 008	54
749 440 722	78	753 050 824	52	753 061 025	53	753 081 009	54
749 440 723	78	753 050 825	53	753 061 026	53	753 081 010	54
749 440 724	78	753 050 826	53	753 061 027	53	753 081 011	54
749 440 725	78	753 050 827	53	753 061 028	53	753 081 012	54
749 440 726	78	753 050 828	53	753 061 029	53	753 081 013	54
749 440 727	78	753 050 829	53	753 070 813	51	753 081 014	54
749 440 728	78	753 051 008	52	753 070 814	51	753 081 015	54
749 440 729	78	753 051 009	52	753 070 815	51	753 081 016	54
753 000 813	50	753 051 010	52	753 070 816	51	753 081 017	54
753 000 814	50	753 051 011	52	753 070 817	51	753 081 018	54
753 000 815	50	753 051 012	52	753 070 818	51	753 081 019	54
753 000 816	50	753 051 013	52	753 070 819	51	753 081 020	54
753 000 817	50	753 051 014	52	753 070 820	51	753 081 021	54
753 000 818	50	753 051 015	52	753 070 821	51	753 081 022	54
753 000 819	50	753 051 016	52	753 070 822	51	753 081 023	54
753 000 820	50	753 051 017	52	753 070 823	51	753 081 024	54
753 000 821	50	753 051 018	52	753 070 824	51	753 081 025	54
753 000 822	50	753 051 019	52	753 070 825	52	753 081 026	54
753 000 823	50	753 051 020	52	753 070 826	52	753 081 027	54
753 000 824	50	753 051 021	52	753 070 827	52	753 081 028	54
753 000 825	50	753 051 022	52	753 070 828	52	753 081 029	54
753 000 826	50	753 051 023	52	753 070 829	52	753 090 813	56
753 000 827	50	753 051 024	52	753 071 008	51	753 090 814	56
753 000 828	51	753 051 025	52	753 071 009	51	753 090 815	56
753 000 829	51	753 051 026	52	753 071 010	51	753 090 816	56
753 000 830	51	753 051 027	52	753 071 011	51	753 090 817	56
753 000 831	51	753 051 028	52	753 071 012	51	753 090 818	56
753 001 008	50	753 051 029	52	753 071 013	51	753 090 819	56
753 001 009	50	753 060 813	54	753 071 014	51	753 090 820	56
753 001 010	50	753 060 814	54	753 071 015	51	753 090 821	56



# Index

Code	Page	Code	Page	Code	Page	Code	Page
753 090 822	56	753 140 813	49	753 200 840	60	753 201 111	59
753 090 823	56	753 140 814	49	753 200 841	60	753 201 112	59
753 090 824	56	753 140 815	49	753 200 842	60	753 201 113	59
753 090 825	56	753 140 816	49	753 200 846	60	753 201 114	59
753 090 826	56	753 140 817	49	753 200 848	60	753 201 115	59
753 090 827	56	753 140 818	49	753 200 849	60	753 201 356	61
753 090 828	56	753 140 819	49	753 200 851	60	753 201 357	61
753 090 829	56	753 140 820	49	753 200 852	60	753 201 358	61
753 091 008	55	753 140 821	49	753 200 853	60	753 201 359	61
753 091 009	55	753 140 822	49	753 200 854	60	753 201 360	61
753 091 010	55	753 140 823	49	753 200 855	60	753 201 361	61
753 091 011	55	753 141 008	49	753 200 856	60	753 201 362	61
753 091 012	55	753 141 009	49	753 200 857	60	753 201 363	61
753 091 013	55	753 141 010	49	753 200 858	60	753 201 364	61
753 091 014	55	753 141 011	49	753 200 859	61	753 201 365	61
753 091 015	55	753 141 012	49	753 200 860	61	753 201 366	61
753 091 016	55	753 141 013	49	753 200 861	61	753 201 367	61
753 091 017	55	753 141 014	49	753 200 862	61	753 201 368	61
753 091 018	55	753 141 015	49	753 200 863	61	753 201 369	61
753 091 019	55	753 141 016	49	753 200 864	61	753 201 370	61
753 091 020	55	753 141 017	49	753 200 865	61	753 201 371	61
753 091 021	55	753 141 018	49	753 200 866	61	753 201 372	61
753 091 022	55	753 141 019	49	753 200 867	61	753 201 373	61
753 091 023	55	753 141 020	49	753 200 868	61	753 201 404	61
753 091 024	55	753 141 021	49	753 200 869	61	753 201 412	61
753 091 025	55	753 141 022	49	753 200 870	61	753 201 414	61
753 091 026	55	753 141 023	49	753 200 902	57	753 201 422	61
753 091 027	55	753 150 816	47	753 200 903	57	753 201 424	61
753 091 028	55	753 150 821	47	753 201 002	59	753 201 432	61
753 091 029	55	753 150 822	47	753 201 003	59	753 201 434	61
753 100 821	46	753 150 823	47	753 201 004	59	753 201 442	61
753 100 822	46	753 150 922	47	753 201 022	58	753 201 444	61
753 100 823	46	753 150 923	47	753 201 026	58	753 201 452	61
753 100 922	46	753 151 016	47	753 201 027	58	753 201 454	61
753 100 923	46	753 200 024	57	753 201 051	58	753 201 462	61
753 120 813	48	753 200 025	57	753 201 052	58	753 201 464	61
753 120 814	48	753 200 026	57	753 201 053	58	753 201 827	60
753 120 815	48	753 200 027	57	753 201 054	58	753 201 873	60
753 120 816	48	753 200 028	57	753 201 070	59	753 201 874	60
753 120 817	48	753 200 029	57	753 201 073	58	753 201 875	60
753 120 818	48	753 200 124	57	753 201 081	59	753 201 876	60
753 120 819	48	753 200 125	57	753 201 084	59	753 201 878	60
753 120 820	48	753 200 126	58	753 201 085	59	753 201 879	60
753 120 821	48	753 200 127	58	753 201 087	59	753 251 010	62
753 120 822	48	753 200 128	58	753 201 089	59	753 251 011	62
753 120 823	48	753 200 129	58	753 201 090	59	753 251 012	62
753 120 908	48	753 200 801	60	753 201 091	59	753 251 013	62
753 120 909	48	753 200 802	57	753 201 093	59	753 251 014	62
753 120 910	48	753 200 803	57	753 201 095	59	753 251 063	62
753 120 911	48	753 200 812	60	753 201 097	59	753 251 064	62
753 120 912	48	753 200 821	57	753 201 098	59	753 700 611	76
753 120 913	48	753 200 822	60	753 201 100	59	753 700 612	76
753 120 914	48	753 200 823	60	753 201 101	59	753 700 613	76
753 120 915	48	753 200 824	60	753 201 102	59	753 700 614	76
753 120 916	48	753 200 826	60	753 201 103	59	753 700 615	76
753 120 917	48	753 200 827	60	753 201 104	59	753 700 616	76
753 120 918	48	753 200 828	60	753 201 105	59	753 700 617	76
753 120 919	48	753 200 829	60	753 201 106	59	753 700 618	76
753 120 920	48	753 200 832	60	753 201 107	59	753 700 619	76
753 120 921	48	753 200 836	60	753 201 108	59	753 700 620	76
753 120 922	48	753 200 837	60	753 201 109	59	753 700 621	76
753 120 923	48	753 200 839	60	753 201 110	59	753 700 622	76

# Index

Code	Page	Code	Page	Code	Page	Code	Page
753 700 623	76	753 900 868	64	753 960 810	66	790 136 005	84
753 700 624	76	753 900 870	64	753 960 811	66	790 136 006	84
753 700 625	76	753 900 872	64	753 960 812	66	790 136 007	84
753 700 626	76	753 900 873	64	753 960 816	66	790 136 008	84
753 700 627	76	753 900 874	64	753 960 821	66	790 136 009	84
753 700 628	76	753 900 875	64	753 960 822	66	790 136 010	84
753 700 629	76	753 900 877	64	753 960 823	66	790 136 011	84
753 800 008	69	753 900 882	64	753 960 824	66	790 136 012	84
753 800 009	69	753 900 884	64	753 960 825	66	790 136 013	84
753 800 010	69	753 900 886	64	753 960 826	67	790 136 014	84
753 800 021	69	753 900 887	64	753 960 827	67	790 136 015	84
753 800 022	69	753 900 888	64	753 960 828	67	790 136 100	85
753 800 023	69	753 900 891	64	753 960 829	67	790 136 213	85
753 800 028	69	753 900 898	65	753 960 922	66	790 136 214	85
753 800 029	69	753 900 899	65	753 960 923	66	790 136 221	85
753 800 031	69	753 901 002	63	753 960 924	66	790 136 222	85
753 800 032	69	753 901 003	63	753 960 925	66	790 136 223	85
753 800 096	70	753 901 005	64	753 960 926	66	790 156 003	81
753 800 097	70	753 901 012	64	753 960 927	66	790 156 006	81
753 800 098	70	753 901 013	64	753 960 928	66	790 156 008	80
753 800 103	70	753 901 014	64	753 960 929	66	790 156 010	81
753 800 104	70	753 901 015	64	753 961 016	66	790 156 011	82
753 800 224	69	753 901 016	64	753 961 716	17	790 156 012	82
753 800 225	69	753 901 017	64	753 961 717	17	790 156 014	82
753 800 226	69	753 901 018	64	775 641 502	20	790 156 160	82
753 800 227	69	753 901 019	64	775 641 507	20	790 156 260	82
753 800 299	70	753 901 020	64	775 641 510	20	790 156 261	82
753 800 300	70	753 901 022	64	775 641 514	20	790 160 225	82
753 800 301	70	753 901 024	64	775 641 518	20	790 160 227	82
753 800 302	70	753 901 025	64	775 641 524	20	790 160 251	82
753 900 800	64	753 901 026	64	775 641 632	20	790 160 252	82
753 900 801	65	753 901 027	64	775 641 636	20	790 202 001	101
753 900 802	65	753 901 029	64	775 641 640	20	790 202 011	101
753 900 803	65	753 901 030	64	775 641 641	20	790 308 259	86
753 900 805	65	753 901 032	63	775 641 645	20	790 308 312	86
753 900 806	65	753 901 039	64	775 641 655	20	799 100 061	37, 89
753 900 807	65	753 901 040	64	775 641 659	20	799 100 062	37, 89
753 900 808	65	753 901 043	64	775 642 664	20	799 150 355	87
753 900 809	65	753 901 044	64	775 642 665	20	799 150 378	37, 89
753 900 810	65	753 901 045	64	775 642 666	20	799 150 385	94
753 900 811	65	753 901 049	64	775 642 669	20	799 150 386	94
753 900 812	65	753 901 050	64	775 642 672	20	799 150 387	94
753 900 813	65	753 901 066	63	775 642 673	20	799 150 388	94
753 900 814	65	753 901 067	63	775 642 675	20	799 150 389	94
753 900 815	65	753 901 068	63	775 642 678	20	799 150 390	94
753 900 816	65	753 901 073	63	790 109 001	100	799 150 391	94
753 900 817	65	753 901 074	63	790 109 002	100	799 150 392	94
753 900 818	65	753 901 075	63	790 109 003	100	799 150 423	87
753 900 819	65	753 901 086	63	790 109 011	100	799 198 047	89
753 900 820	65	753 901 087	63	790 109 012	100	799 198 079	36, 89
753 900 821	65	753 901 097	63	790 109 013	100	799 198 080	36, 89
753 900 822	65	753 901 098	63	790 109 600	102	799 198 091	36, 89
753 900 823	65	753 901 099	63	790 109 616	102	799 198 094	87
753 900 824	65	753 911 652	9	790 109 618	103	799 198 101	90
753 900 825	65	753 911 852	10	790 109 850	100	799 198 102	90
753 900 826	65	753 911 853	10	790 109 851	100	799 198 103	90
753 900 827	65	753 911 854	10	790 109 861	101	799 198 104	90
753 900 828	65	753 911 950	11	790 128 119	82	799 198 105	91
753 900 829	65	753 911 951	11	790 136 001	84	799 198 106	91
753 900 831	64	753 911 952	11	790 136 002	84	799 198 107	91
753 900 866	64	753 911 953	11	790 136 003	84	799 198 121	90
753 900 867	64	753 911 954	11	790 136 004	84	799 198 122	90

# Index

Code	Page	Code	Page	Code	Page
799 198 123	90	799 300 831	96	799 350 690	98
799 198 124	90	799 300 835	96	799 350 695	98
799 198 131	91	799 300 920	96	799 350 696	98
799 198 133	91	799 300 923	96		
799 198 137	91	799 301 459	92		
799 198 138	91	799 301 461	92		
799 199 127	97	799 301 463	92		
799 199 128	97	799 301 484	92		
799 199 129	97	799 301 486	92		
799 199 130	97	799 301 488	92		
799 199 131	97	799 301 489	93		
799 199 132	97	799 301 490	93		
799 199 133	97	799 301 491	93		
799 199 134	97	799 301 492	93		
799 199 135	97	799 301 495	93		
799 199 137	97	799 301 496	93		
799 199 138	98	799 301 497	93		
799 199 139	98	799 301 498	93		
799 199 140	98	799 301 499	94		
799 199 141	98	799 301 536	94		
799 199 282	36, 90	799 301 537	94		
799 199 283	36, 90	799 301 538	94		
799 199 286	36, 90	799 301 539	94		
799 199 287	36, 44, 90	799 301 540	94		
799 199 288	44	799 301 541	94		
799 199 289	44	799 301 575	94		
799 199 321	44	799 350 107	97		
799 199 322	44	799 350 108	97		
799 199 323	44	799 350 270	97		
799 199 327	44	799 350 340	83		
799 199 328	44	799 350 341	83		
799 298 023	84	799 350 358	92		
799 298 024	84	799 350 364	88		
799 300 347	86	799 350 419	82		
799 300 350	86	799 350 462	83		
799 300 351	86	799 350 475	95		
799 300 352	86	799 350 476	95		
799 300 356	86	799 350 477	34, 43, 95		
799 300 357	86	799 350 659	99		
799 300 358	86	799 350 660	98		
799 300 359	86	799 350 661	98		
799 300 360	86	799 350 662	98		
799 300 361	86	799 350 663	98		
799 300 362	86	799 350 664	98		
799 300 376	86	799 350 665	98		
799 300 377	86	799 350 666	98		
799 300 378	86	799 350 667	98		
799 300 379	86	799 350 668	98		
799 300 380	86	799 350 669	98		
799 300 381	86	799 350 670	98		
799 300 382	86	799 350 671	98		
799 300 586	87	799 350 672	98		
799 300 752	87	799 350 673	98		
799 300 755	87	799 350 674	98		
799 300 756	87	799 350 681	99		
799 300 757	87	799 350 682	99		
799 300 799	85	799 350 683	99		
799 300 802	85	799 350 684	99		
799 300 806	85	799 350 685	99		
799 300 807	43, 95	799 350 686	99		
799 300 809	44, 96	799 350 688	98		
799 300 820	96	799 350 689	98		

# General Condition of Supply of Georg Fischer Wavin Ltd., 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 2010 of the ICC, or latest version) including standard packing. All supplementary costs such as the cost of carriage, insurance, export-, transit- and import- licences etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties etc. connected with the contract.
- 7.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or 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 offset payments due against counter claims which are either expressly acknowledged by Georg Fischer or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided that the Products already delivered are not rendered unusable as a result.

## 9 Retention of Title

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

## 10 Delivery

- 10.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical issues have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the Products are ready for despatch.
- 10.2 Delivery is subject to the following conditions, i.e. the term of delivery shall be reasonably extended:
- a) if Georg Fischer are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser.
- b) if Georg Fischer are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer's control which renders Georg Fischer's performance commercially unpractical or impossible, such as delayed or defective supplies from sub contractors labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads.
- Should the effect of force majeure exceed a period of six (6) 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 (1) month which equally is not met.
- The Purchaser shall then be entitled to the remedies provided at law, it being however understood that, subject to limitations of Art. 16, damage claims shall be limited to max. 10% of the price of the delayed delivery.
- 10.4 Part shipments shall be allowed and Georg Fischer shall be entitled to invoice for such partial deliveries.
- 10.5 If the Purchaser fails to take delivery within a reasonable time of Products notified as ready for despatch, Georg Fischer shall be entitled to store the Products at the Purchaser's expense and risk and to invoice them as delivered. If Purchaser fails to effect payment, Georg Fischer shall be entitled to dispose of the Products.
- 10.6 Should Purchaser cancel an order without justification and should Georg Fischer not insist on the performance of the contract, Georg Fischer shall be entitled to a penalty amounting to 10% of the contract price, Georg Fischer's right to prove and claim higher damages remaining reserved. Purchaser shall be entitled to prove, that Georg Fischer has suffered no or a considerably lower damage than the penalty forfeited.

## 11 Packing

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

## 12 Passing of Risk

- 12.1 The risk in the Products shall pass to the Purchaser as soon as they have left Georg Fischer's works (EX WORKS, Incoterms 2010 ICC, or 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 (6) 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 seven (7) working days after discovery, in any event within the agreed warranty period.
- 14.3 Purchaser shall not dispose of allegedly defective Products until all warranty and/or damage claims are finally settled. At its request, defective Products are to be placed at Georg Fischer's disposal.
- 14.4 At its request, Georg Fischer shall be given the opportunity to inspect the defect and/or damage, prior to commencement of remedial work, either itself or by third party experts.

## 15 Warranty

- 15.1 At the written request of the Purchaser, Georg Fischer undertakes to repair or replace at its discretion, as quickly as possible and free of charge, all Products supplied which demonstrably suffer from faulty design, materials or workmanship, from faulty operating or installation instructions or which become defective or unusable due to faulty advice.
- In order to protect employees from toxic or radioactive substances which may have been transported through defective parts returned to Georg Fischer's sales organisation, said parts must be accompanied by a Material Safety Disclosure Form. The form may be obtained from Georg Fischer's local sales company or via [www.piping.georgfischer.com](http://www.piping.georgfischer.com).
- Replaced parts shall become property of Georg Fischer, unless Georg Fischer waives such claim.
- 15.2 For Products which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer's warranty shall be restricted to proper materials and workmanship.
- 15.3 The Purchaser shall be entitled to rescind the contract or to demand a reduction of the contract price if - the repair or replacement of the defective Product is impossible - the defective Product is not repaired or replaced within a reasonable period - Georg Fischer refuses the repair or replacement or if for reasons attributable to Georg Fischer the repair or replacement is delayed.
- 15.4 For Products or essential components manufactured by a third party and supplied by Georg Fischer under this contract, Georg Fischer's warranty is limited to the warranty provided by said third party.
- 15.5 This warranty shall not apply to damage resulting from normal wear and tear, improper storage and maintenance, failure to observe the operating instructions, overstressing or overloading, unsuitable operating media, unsuitable construction work or unsuitable building ground, improper repairs or alterations by the Purchaser or third parties, the use of other than original spare parts and other reasons beyond Georg Fischer's control.
- 15.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer after the expiration of twelve (12) months from receipt of the Products by the end user or at the latest within eighteen (18) months of the Products being despatched by Georg Fischer.
- 15.7 In case of Products for use in domestic installations or in utilities
- Georg Fischer will assume the costs of dismantling the defective Product and restoring the damaged object up to CHF 1'000'000 per occurrence.
  - warranty or damage claims - contrary to Section 15.6 - are time-barred five (5) years from the date of installation or seven (7) years from the production date, whichever is earlier.

## 16 Limitation of Liability

- The rights and remedies of the customer shall be exclusively governed by these General Conditions of Supply and shall be in lieu of any remedies at law. All further claims for damages, reduction of the purchase price, termination of or rescission of the contract are excluded.
- In no case whatsoever shall the customer be entitled to claim damages other than compensation for costs of remedying defects in the supplies. This in particular refers, but shall not be limited, to loss of production, loss of use, loss of orders, loss of profit, third party recovery claims and other direct or indirect or consequential damages.
- This limitation of liability equally applies to the extent Georg Fischer is liable for acts or omissions of its employees or third parties engaged for the performance of its obligations. It does not apply in case of unlawful intent or gross negligence on the part of Georg Fischer's management and in case of Georg Fischer's statutory liability, in particular under applicable product liability laws.

## 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 The contract shall be governed by Swiss law without regard to conflict of law provisions that would require the application of another law.
- 18.3 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.

