



PLASSON[®]
AUSTRALIA

PRODUCT CATALOGUE

SIMONA

Ø 450 mm

THE COMPLETE RANGE OF
FITTINGS FOR POLYETHYLENE
PIPING SYSTEMS.

plasson.com.au

GLOBAL PRESENCE - LOCAL COMMITMENTS

PLASSON's innovative products revolutionised the way of connecting polyethylene pipes in the 1960's. We started with fittings for agricultural irrigation and later developed solutions for urban water distribution.

Nowadays, water delivery systems in many of the world's great cities owe their excellence to PLASSON's innovative research and development.

PLASSON ensures superior designs and products, the widest range of fittings and adaptors and a genuine commitment to quality, delivery and service.

PLASSON continues to strive for the future environment. By using PLASSON products, you help us to invest in our vision of a world where clean, pure water will be everyone's birthright.



HEAD OFFICE

Sydney

61 Dunning Avenue, Rosebery, NSW 2018

WAREHOUSES

Brisbane

77 Logistics Place, Larapinta, QLD 4110

Melbourne

25 Business Park Drive, Ravenhall, VIC 3023

Perth

8 Tacoma Circuit, Canning Vale, WA 6155

PLASSON AUSTRALIA

plasson.com.au

1300 752 776

sales@plasson.com.au

ABN 40 053 788 891

Version: 2026



SIMONA

Ø 450 mm

The background of the entire page is a photograph of several large, white, woven bags of SIMONA spigots. The bags are stacked on wooden pallets. The text 'SIMONA' and 'Ø 450 mm' is printed in red on the bags. A white rounded rectangle is overlaid on the top right of the image, containing the PLASSON logo and the product name.

 **PLASSON**

SIMONA SPIGOTS

8194

Page 180 | Full Face Stub Flange
Long Spigot



8194

Page 181 | Stub Flange
Long Spigot



8100

Page 182 | Concentric Reducer
Long Spigot



8103/8193

Page 185 | Tee Long Spigot



8135/8223

Page 186 | Reducing Tee
Long Spigot



8137

Page 187 | 45° Branches
Long Spigot



8192

Page 187 | 90° Elbow
Long Spigot



8192

Page 188 | 45° Elbow
Long Spigot



8191

Page 189 | 90° Bend
Long Spigot



8196

Page 190 | End Cap
Long Spigot



8100

Page 191 | 11° Seamless Bend



8100

Page 192 | 22° Seamless Bend



8100

Page 193 | 30° Seamless Bend



8100

Page 194 | 45° Seamless Bend



8100

Page 195 | 60° Seamless Bend



8100

Page 196 | 90° Seamless Bend



8139

Page 197 | End Cap
Short Spigot



8106

Page 198 | Stub Flange
Short Spigot



8103

Page 199 | Elbow Short
Spigot



8149

Page 200 | Concentric Reducer
Short Spigot



8103

Page 202

Tee Short Spigot



AS2129 Table D

Page 204

Backing Flanges - AS2129
Table D (700kPa up to 50°C)

AS2129 Table E

Page 206

Backing Flanges - AS2129
Table E (1400kPa up to 50°C)

AS4087 PN16

Page 208

Backing Flanges - AS4087
PN16 (up to 80°C)

AS4087 PN21

Page 209

Backing Flanges - AS4087
PN21 (up to 80°C)

AS4087 PN35

Page 210

Backing Flanges - AS4087
PN35 (up to 80°C)

ASME B16.5 ANSI 150#

Page 211

Backing Flanges - ASME
B16.5 ANSI 150#

Plasson is an exclusive
distribution partner of

SIMONA

Global Thermoplastic Solutions

SIMONA AG is a top manufacturer and development partner of high-quality thermoplastic products, with production facilities and sales offices worldwide. They provide best-in-class solutions for the chemical process industry, water and energy utilities, commodity supply, mobility, environmental technology, and construction sectors.

SIMONA® Spigot Fittings are a hallmark of flexibility, durability, and functionality. Headquartered in Kirn, Germany, these fittings are crafted to high standards and available in sizes from DN20 to DN1200. For more details, visit www.simona.de.

Plasson, the exclusive Australian distributor, offers the widest range of SIMONA® Spigot Fittings, supported by expert technical, sales, and logistics teams to ensure you get the right product when and where you need it.

PLASSON PE100 HSCR Fittings For ultimate crack resistance

**SIMONA injection moulded spigot fittings are made of PE100 HSCR
(High Stress Crack Resistant)**

PE100 HSCR is a PE100 material which offers up to ten times higher resistance to slow crack growth than regular PE100. This is particularly important where the pipe is prone to damage during installation. It has the same pressure burst strength of conventional PE100 pipe but is specially formulated for use in critical or high-value pipeline assets where the risk of premature failure from slow crack growth is possible.

RC resins are listed in PIPA POP016 guideline.

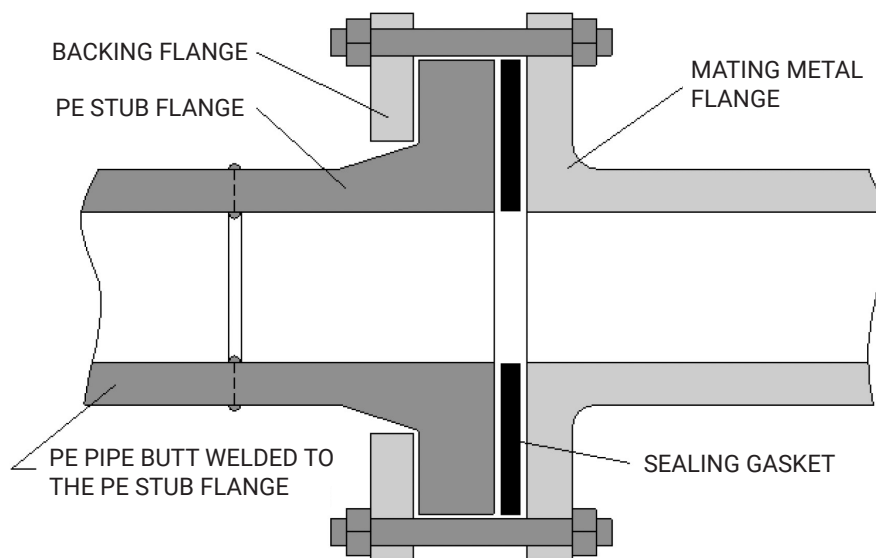
Benefits of PE100 HSCR:

- ✓ Produces a durable, hard-wearing pipeline
- ✓ Extends the service life of the entire piping system
- ✓ Enables cost-saving installation methods
- ✓ Maximum operational reliability

For more information on POP016 go to www.pipa.com.au/technical/pop-guidelines/

Stub Flange Systems

A typical stub flange system is shown below.



BOLT TYPE	NUT LENGTH	THREAD LENGTH
M12	10.8	27
M16	14.8	37
M20	18	45
M24	21.5	53.75
M27	24	60
M30	25.6	64
1/2"	10.8	27
5/8"	14.8	37

Plasson offers M12 bolts for 1/2" and M16 for 5/8".

Calculating the required bolt length of a stub flange system is dependent on the dimensions of the components shown in the above picture. This catalogue shows Stub (TS), Flange (TF) and Gasket (TG) thicknesses. Metric Bolts are used with Table D and E, PN16 and PN21 flanges. These bolts have a fixed thread length and selecting the right length of bolt is important to ensure the nut has sufficient length to tighten the system.

The **MINIMUM LENGTH** of the bolt must be greater than the thickness of all components combined while allowing sufficient thread for the nut to tighten onto.

$$LB - L T > TF + TS + TG + TM$$

The **MAXIMUM LENGTH** of the bolt must ensure that the nut doesn't bottom out on the thread of the bolt before sufficiently tightening the system. Usually 1.5x the nut length is allowed for tightening.

$$LB - (1.5 \times TN) < TF + TS + TG + TM$$

Metric Studs are typically used instead of bolts with PN35 flanges. Studs are threaded along the entire length and there is, therefore, no maximum length. The minimum length of the stud is determined by the same method as for bolts.

LENGTHS LISTED IN THIS CATALOGUE ARE THEORETICAL AND HAVE NOT MADE ANY PROVISION FOR SYSTEM COMPRESSION OR ANY TOLERANCES. PLEASE CONSULT THE RELEVANT STANDARDS TO ENSURE THAT THE SELECTED BOLTS ARE SUITABLE FOR YOUR APPLICATION.

PE FULL FACE FLANGES

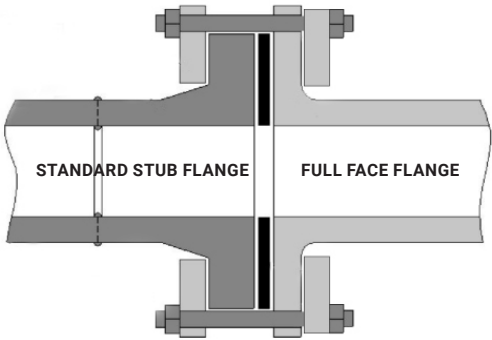
Designed For Maximum Strength
And Sealing

Features and Benefits:

- ✓ As4087, PN16 rated
- ✓ Injection moulded spigot conforms to AS/NZS 41
- ✓ Plasson SS 316L backing ring fully complies with the PIPA POP007 Guidelines
- ✓ Highest quality virgin PE100 HSCR resins for improved performance
- ✓ Long Spigot for Electrofusion or Butt Welding

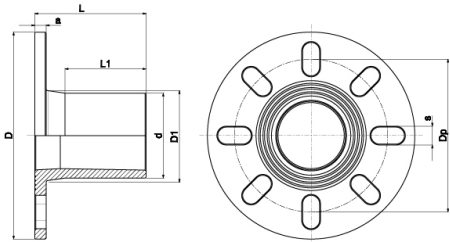


Bolt Arrangement: Full Face Flange



Full Face Stub Flange Long Spigot

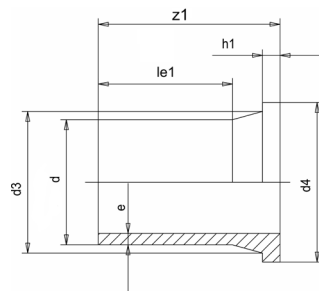
8194



Product Code	Size d x DN	Z1	le1	d4	e	h1	d3	RF	SDR
4902007	90 x 3"	117	86	222	8.1	12	94	-	11
8194100	125 x 4"	173	120	215	11.4	27	132	154	11
8194101	180 x 6"	186	125	280	16.4	30	186	211	11
8194102	225 x 8"	260	185	335	20.5	36	235	268	11

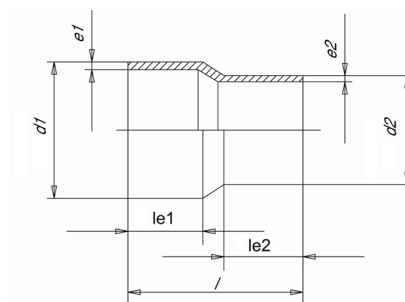
Stub Flange Long Spigot

8194



Product Code	Size d x Rp	Z1	le1	d4	e	h1	d3	SDR
8194035	20	85	62	45	2	7	27	11
8194036	25	90	62	58	2.3	9	33	11
8194001	32	86	62	68	3	10	40	11
8194002	40	89	62	72	3.7	11	50	11
8194003	50	90	62	82	4.6	12	60	11
8194004	63	106	70	94	5.8	14	75	11
8194005	75	129	94	105	6.8	16	89	11
8194006	90	140	100	125	8.2	17	105	11
8194007	110	160	113	158	10	18	125	11
8194008	125	170	116	158	11.4	25	132	11
8194009	140	182	128	188	12.7	25	155	11
8194010	160	208	155	212	14.6	25	175	11
8194011	180	202	168	212	16.4	30	186	11
8194012	200	206	140	268	18.2	32	232	11
8194013	225	201	135	268	20.5	32	235	11
8194014	250	225	143	320	22.7	35	285	11
8194015	280	235	155	320	25.4	35	291	11
8194016	315	250	170	370	28.6	35	335	11
8194017	355	260	176	430	32.2	40	373	11
8194018	400	290	195	482	36.3	46	427	11
8100515	450	335	210	556	40.9	60	462	11
8100516	500	350	230	585	45.4	60	532	11
8100517	560	370	240	665	50.8	60	615	11
8100518	630	390	260	685	57.2	60	643	11
8100561	710	450	300	800	64.5	70	737	11
8194019	50	90	62	82	3	12	60	17
8194020	63	106	70	94	3.8	14	75	17
8194021	75	130	92	105	4.5	16	89	17
8194022	90	140	100	125	5.4	17	105	17
8194023	110	158	113	158	6.6	18	125	17
8194024	125	170	122	158	7.4	18	132	17
8194025	140	173	130	188	8.3	18	153	17
8194026	160	208	160	212	9.5	18	175	17
8194027	180	200	140	212	10.7	20	186	17
8194028	200	199	133	268	11.9	24	232	17
8194029	225	201	135	268	13.4	24	235	17
8194030	250	225	156	320	14.8	25	285	17
8194031	280	236	167	320	16.6	25	291	17
8194032	315	250	180	370	18.7	25	335	17
8194033	355	261	179	430	21.1	30	373	17
8194034	400	290	195	482	23.7	33	427	17
8100519	450	335	225	556	26.7	46	462	17
8100520	500	350	240	585	29.7	46	532	17
8100521	560	370	250	665	33.2	50	615	17
8100522	630	390	270	685	37.4	50	644	17
8100558	710	450	300	800	42.1	50	737	17
8100559	800	470	320	905	47.4	54	840	17
8100560	900	505	350	1005	53.3	58	944	17

Concentric Reducer Long Spigot



Product Code	Size d1 x d2	le1	le2	l	e1	e2	SDR
8100208	25 X 20	41	41	90	2.3	1.9	11
8100209	32 X 20	44	41	101	3	2	11
8100210	32 X 25	44	41	100	3	2.3	11
8100211	40 X 25	49	41	104	3.7	2.3	11
8100141	40 X 32	49	44	105	3.7	2.9	11
8100142	50 X 25	56	42	132	4.6	2.3	11
8100143	50 X 32	57	47	132	4.6	2.9	11
8100144	50 X 40	55	51	134	4.6	3.7	11
8100145	63 X 32	63	44	144	5.8	2.9	11
8100146	63 X 40	63	49	147	5.8	3.7	11
8100147	63 X 50	64	58	152	5.8	4.6	11
8100148	75 X 50	70	55	155	6.8	4.6	11
8100149	75 X 63	70	65	171	6.8	5.8	11
8100150	90 X 50	79	57	174	8.2	4.6	11
8100151	90 X 63	79	70	182	8.2	5.8	11
8100152	90 X 75	79	70	180	8.2	6.8	11
8100153	110 X 63	84	69	185	10	5.8	11
8100154	110 X 75	84	74	185	10	6.8	11
8100155	110 X 90	84	81	186	10	8.2	11
8100156	125 X 63	91	69	200	11.4	5.8	11
8100157	125 X 90	91	80	202	11.4	8.2	11
8100158	125 X 110	90	90	200	11.4	10	11
8100159	140 X 90	112	86	237	12.7	8.2	11
8100160	140 X 110	116	90	230	12.7	10	11
8100161	140 X 125	117	96	235	12.7	11.4	11
8100162	160 X 90	109	84	254	14.6	8.2	11
8100163	160 X 110	110	89	254	14.6	10	11
8100164	160 X 125	110	95	254	14.6	11.4	11
8100165	160 X 140	110	106	254	14.6	12.7	11
8100166	180 X 90	106	79	245	16.4	8.2	11
8100167	180 X 110	124	93	275	16.4	10	11
8100168	180 X 125	105	87	245	16.4	11.4	11
8100169	180 X 160	126	125	279	16.4	14.6	11
8100170	200 X 140	123	114	279	18.2	12.7	11
8100171	200 X 160	122	122	277	18.2	14.6	11
8100172	200 X 180	126	120	279	18.2	16.4	11
8100173	225 X 160	132	123	295	20.5	14.6	11
8100174	225 X 180	130	118	285	20.5	16.4	11
8100175	225 X 200	126	120	272	20.5	18.2	11
8100176	250 X 160	149	100	308	22.7	14.6	11
8100177	250 X 180	151	105	316	22.7	16.4	11
8100178	250 X 200	151	116	324	22.7	18.2	11
8100179	250 X 225	155	122	330	22.7	20.5	11
8100180	280 X 200	140	116	345	25.4	18.2	11
8100181	280 X 225	142	122	335	25.4	20.5	11
8100182	280 X 250	139	135	340	25.4	22.7	11
8100183	315 X 225	150	125	365	28.6	20.5	11
8100184	315 X 250	150	134	365	28.6	22.7	11

Concentric Reducer Long Spigot Cont.

8100

Product Code	Size d1 x d2	le1	le2	l	e1	e2	SDR
8100185	315 X 280	150	145	365	28.6	25.4	11
8100186	355 X 250	164	136	390	32.2	22.7	11
8100187	355 X 280	164	139	390	32.2	25.4	11
8100188	355 X 315	164	150	390	32.2	28.6	11
8100189	400 X 280	179	139	415	36.3	25.4	11
8100190	400 X 315	179	150	415	36.3	28.6	11
8100191	400 X 355	179	164	420	36.3	32.2	11
8100192	450 X 280	205	140	390	40.9	25.4	11
8100193	450 X 315	205	150	390	40.9	28.6	11
8100194	450 X 355	205	165	400	40.9	32.2	11
8100195	450 X 400	205	180	400	40.9	36.3	11
8100196	500 X 315	225	150	430	45.4	28.6	11
8100197	500 X 355	225	165	430	45.4	32.2	11
8100198	500 X 400	225	180	430	45.4	36.3	11
8100199	500 X 450	225	195	430	45.4	40.9	11
8100200	560 X 355	240	165	460	50.8	32.2	11
8100201	560 X 400	240	180	470	50.8	36.3	11
8100202	560 X 450	240	195	470	50.8	40.9	11
8100203	560 X 500	240	215	470	50.8	45.4	11
8100204	630 X 400	260	180	510	57.2	36.3	11
8100205	630 X 450	260	195	510	57.2	40.9	11
8100206	630 X 500	260	215	510	57.2	45.4	11
8100207	630 X 560	260	235	520	57.2	50.8	11
8149105	63 X 32	63	46	142	3.8	2.9	17
8149107	63 X 50	64	58	152	3.8	3	17
8149108	75 X 63	70	63	166	4.5	3.8	17
8149110	90 X 63	79	63	182	5.4	3.8	17
8149111	90 X 75	80	73	185	5.4	4.5	17
8149112	110 X 63	84	69	185	6.6	3.8	17
8149113	110 X 75	83	73	183	6.6	4.5	17
8149114	110 X 90	83	80	185	6.6	5.4	17
8149115	125 X 63	90	68	200	7.4	3.8	17
8149116	125 X 90	90	81	200	7.4	5.4	17
8149117	125 X 110	91	90	200	7.4	6.6	17
8149118	140 X 90	112	86	235	8.3	5.4	17
8149119	140 X 110	114	91	237	8.3	6.6	17
8149120	140 X 125	117	96	235	8.3	7.4	17
8149121	160 X 90	109	84	254	9.5	5.4	17
8149122	160 X 110	110	89	254	9.5	6.6	17
8149123	160 X 125	110	95	254	9.5	7.4	17
8149124	160 X 140	110	106	254	9.5	8.3	17
8149125	180 X 90	105	80	244	10.7	5.4	17
8149126	180 X 110	124	93	275	10.7	6.6	17
8149127	180 X 125	105	87	250	10.7	7.4	17
8149128	180 X 140	123	114	277	10.7	8.3	17
8149129	180 X 160	126	125	279	10.7	9.5	17
8149130	200 X 140	123	114	279	11.9	8.3	17
8149131	200 X 160	122	124	278	11.9	9.5	17
8149132	200 X 180	126	120	279	11.9	10.7	17
8149133	225 X 140	133	114	290	13.4	8.3	17
8149134	225 X 160	134	123	295	13.4	9.5	17
8149135	225 X 180	125	118	275	13.4	10.7	17
8149136	225 X 200	126	120	272	13.4	11.9	17
8149137	250 X 160	151	98	308	14.8	9.5	17
8149138	250 X 180	153	105	316	14.8	10.7	17
8149139	250 X 200	154	113	325	14.8	11.9	17
8149140	250 X 225	155	122	330	14.8	13.4	17

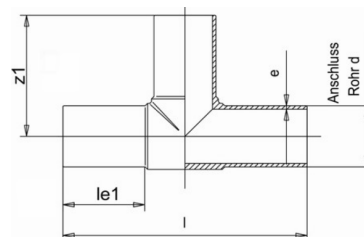
Concentric Reducer Long Spigot Cont.

8100

Product Code	Size d1 x d2	le1	le2	l	e1	e2	SDR
8149141	280 X 200	142	116	330	16.6	11.9	17
8149142	280 X 225	140	124	335	16.6	13.4	17
8149143	280 X 250	139	134	340	16.6	14.8	17
8149144	315 X 225	152	125	371	18.7	13.4	17
8149145	315 X 250	151	133	367	18.7	14.8	17
8149146	315 X 280	150	140	369	18.7	16.6	17
8149147	355 X 250	164	129	390	21.1	14.8	17
8149148	355 X 280	164	139	390	21.1	16.6	17
8149149	355 X 315	164	150	340	21.1	18.7	17
8149150	400 X 280	179	139	415	23.7	16.6	17
8149151	400 X 315	179	150	415	23.7	18.7	17
8149152	400 X 355	179	164	420	23.7	21.1	17
8149153	450 X 280	205	140	390	26.7	16.6	17
8149154	450 X 315	195	150	390	26.7	18.7	17
8149155	450 X 355	195	165	395	26.7	21.1	17
8149156	450 X 400	205	180	400	26.7	23.7	17
8149157	500 X 315	212	150	425	29.7	18.7	17
8149158	500 X 355	225	165	430	29.7	21.1	17
8149159	500 X 400	225	180	430	29.7	23.7	17
8149160	500 X 450	225	195	430	29.7	26.7	17
8149161	560 X 355	240	165	460	33.2	21.1	17
8149162	560 X 400	240	180	470	33.2	23.7	17
8149163	560 X 450	240	195	470	33.2	26.7	17
8149164	560 X 500	240	215	470	33.2	29.7	17
8149165	630 X 400	260	180	510	37.4	23.7	17
8149166	630 X 450	260	195	510	37.4	26.7	17
8149167	630 X 500	260	215	510	37.4	29.7	17
8149168	630 X 560	260	235	520	37.4	33.2	17

Tee Long Spigot

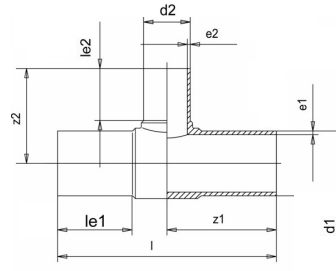
8103/8193



Product Code	d	z1	le1	Length	e	SDR
8103084	25	60	41	120	2.3	11
8103053	32	67	46	139	2.9	11
8103054	40	82	52	165	3.7	11
8103055	50	92	57	184	4.6	11
8103056	63	105	65	216	5.8	11
8103057	75	122	72	248	6.8	11
8103058	90	137	80	277	8.2	11
8103059	110	162	88	321	10	11
8103060	125	176	98	350	11.4	11
8103061	140	200	104	399	12.7	11
8103062	160	206	104	413	14.6	11
8103063	180	260	143	528	16.4	11
8103064	200	253	124	505	18.2	11
8103065	225	278	129	559	20.5	11
8103066	250	291	132	582	22.7	11
8103067	280	312	133	622	25.4	11
8103068	315	351	153	690	28.6	11
8193001	355	414	167	829	32.2	11
8193002	400	457	198	913	36.3	11
8193003	450	477	198	954	40.9	11
8193004	500	525	218	1050	45.4	11
8100546	560	600	245	1200	50.8	11
8100547	630	650	265	1300	57.2	11
8103069	50	90	57	184	3	17
8103070	63	106	64	214	3.8	17
8103071	75	122	72	246	4.5	17
8103072	90	137	81	277	5.4	17
8103073	110	161	84	321	6.6	17
8103074	125	174	100	345	7.4	17
8103075	140	197	104	395	8.3	17
8103076	160	206	104	410	9.5	17
8103077	180	260	141	525	10.7	17
8103078	200	250	123	501	11.9	17
8103079	225	276	129	555	13.4	17
8103080	250	288	132	576	14.8	17
8103081	280	309	132	617	16.6	17
8103082	315	346	153	695	18.7	17
8193005	355	408	165	818	21.1	17
8193006	400	455	197	910	23.7	17
8193007	450	478	197	955	26.7	17
8193008	500	525	218	1050	29.7	17
8100544	560	623	245	1246	33.2	17
8100545	630	675	265	1350	37.4	17

Reducing Tee Long Spigot

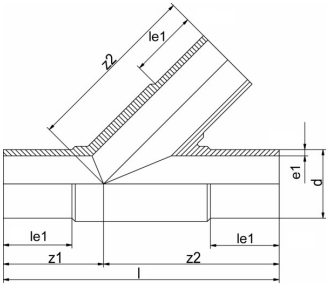
8135/8223



Product Code	d1 x d2	z1	z2	le1	le2	l	e1	e2	SDR
8223019	63 X 32	109	86	65	47	218	5.8	3	11
8223020	63 X 40	109	93	65	52	218	5.8	3.7	11
8135030	63 X 50	108	103	63	56	215	5.8	4.6	11
8135031	75 X 32	128	108	70	46	256	6.8	2.9	11
8135032	75 X 50	127	113	70	56	253	6.8	4.6	11
8135033	75 X 63	128	117	70	63	255	6.8	5.8	11
8135021	90 X 50	135	120	81	59	280	8.2	4.6	11
8135022	90 X 63	141	127	81	65	282	8.2	5.8	11
8135034	90 X 75	136	138	73	68	272	8.2	6.8	11
8135023	110 X 63	162	148	88	67	322	10	5.8	11
8135035	110 X 75	155	151	82	70	309	10	6.8	11
8135024	110 X 90	161	164	88	82	322	10	8.2	11
8135036	125 X 110	171	170	90	83	341	11.4	10	11
8135037	160 X 63	208	174	105	65	416	14.6	5.8	11
8135025	160 X 90	206	190	104	83	415	14.6	8.2	11
8135026	160 X 110	207	200	104	89	414	14.6	10	11
8223017	180 X 90	238	200	108	82	476	16.4	8.2	11
8223018	180 X 110	240	202	107	84	480	16.4	10	11
8135039	180 X 160	240	220	110	101	480	16.4	14.6	11
8223001	200 X 90	250	216	124	82	500	18.2	8.2	11
8223002	200 X 110	253	219	124	86	505	18.2	10	11
8223003	200 X 160	253	237	120	101	500	18.2	14.6	11
8135040	225 X 75	280	219	129	73	560	20.5	6.8	11
8135027	225 X 90	275	228	129	82	555	20.5	8.2	11
8135028	225 X 110	278	238	130	86	559	20.5	10	11
8135029	225 X 160	277	258	128	107	556	20.5	14.6	11
8135041	225 X 180	280	284	130	108	559	20.5	16.4	11
8223007	250 X 110	288	248	133	85	584	22.7	10	11
8223008	250 X 160	292	266	134	102	586	22.7	14.6	11
8223005	315 X 110	346	282	155	85	706	28.6	10	11
8223006	315 X 160	352	301	155	101	705	28.6	14.6	11
8223035	315 X 200	320	326	170	126	640	28.6	18.2	11
8223036	315 X 225	319	335	170	145	638	28.6	20.5	11
8223004	315 X 250	346	331	154	135	695	28.6	22.7	11
8135051	63 X 50	108	103	61	56	217	3.8	3	17
8135052	75 X 50	126	109	68	56	252	4.5	3	17
8135053	75 X 63	126	116	69	62	252	4.5	3.8	17
8135044	90 X 50	139	118	80	59	278	5.4	3	17
8135045	90 X 63	135	127	81	65	275	5.4	3.8	17
8135054	90 X 75	136	139	74	71	272	5.4	4.5	17
8135046	110 X 63	162	147	88	67	320	6.6	3.8	17
8135055	110 X 75	158	152	84	70	315	6.6	4.5	17
8135047	110 X 90	154	160	86	81	318	6.6	5.4	17
8135056	125 X 110	167	168	84	83	334	7.4	6.6	17
8135057	160 X 63	205	172	103	65	411	9.5	3.8	17
8135058	160 X 75	172	180	98	74	343	9.5	4.5	17
8135048	160 X 90	206	190	104	82	412	9.5	5.4	17
8135049	160 X 110	206	198	103	88	412	9.5	6.6	17
8223044	180 X 90	210	200	136	97	420	10.7	5.4	17
8135059	180 X 160	200	205	105	94	411	10.7	9.5	17
8223009	200 X 90	253	216	125	82	504	11.9	5.4	17
8223010	200 X 110	254	219	124	85	506	11.9	6.6	17
8223011	200 X 160	255	235	120	101	500	11.9	9.5	17
8135060	225 X 75	279	219	129	72	561	13.4	4.5	17
8135050	225 X 90	276	226	129	82	555	13.4	5.4	17
8135042	225 X 110	277	236	130	86	556	13.4	6.6	17
8135043	225 X 160	277	255	128	107	555	13.4	9.5	17
8135061	225 X 180	281	284	128	107	558	13.4	10.7	17
8223014	250 X 110	288	242	133	85	580	14.8	6.6	17
8223015	250 X 160	288	261	133	101	580	14.8	9.5	17
8223012	315 X 110	350	277	155	84	699	18.7	6.6	17
8223013	315 X 160	349	300	153	102	695	18.7	9.5	17
8223050	315 X 200	320	331	170	129.5	640	18.7	11.9	17
8223051	315 X 225	319	335	170	145	638	18.7	13.4	17
8223016	315 X 250	349	329	154	135	695	18.7	14.8	17

45° Branches Long Spigot

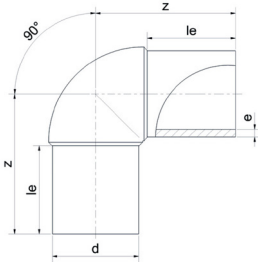
8137



Product Code	d	z1	z2	le1	l	e	SDR
8137001	63	97	162	69	259	5.8	11
8137002	75	109	190	77	299	6.8	11
8137003	90	137	230	85	367	8.2	11
8137004	110	137	260	90	397	10	11
8137005	63	94	162	70	256	3.8	17
8137006	75	109	190	77	299	4.5	17
8137007	90	135	230	85	365	5.4	17
8137008	110	139	260	90	399	6.6	17

90° Elbow Long Spigot

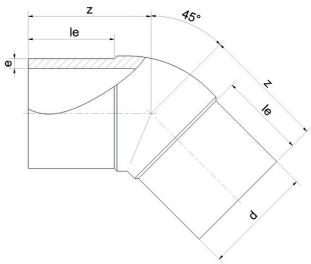
8192



Product Code	d	e	z	le	SDR
8192061	20	2	73	52	11
8192062	25	2.3	80	56	11
8192031	32	3	95	70	11
8192032	40	3.7	105	74	11
8192033	50	4.6	108	80	11
8192034	63	5.8	117	80	11
8192035	75	6.8	132	90	11
8192036	90	8.2	142	91	11
8192037	110	10	162	99	11
8192038	125	11.4	169	103	11
8192039	140	12.7	200	120	11
8192040	160	14.6	233	142	11
8192041	180	16.4	247	142	11
8192042	200	18.2	262	153	11
8192043	225	20.5	281	154	11
8192044	250	22.7	293	134	11
8192045	280	25.4	330	144	11
8192046	315	28.6	370	154	11
8192047	50	3	108	80	17
8192048	63	3.8	116	80	17
8192049	75	4.5	129	89	17
8192050	90	5.4	143	90	17
8192051	110	6.6	160	99	17
8192052	125	7.4	171	102	17
8192053	140	8.3	200	120	17
8192054	160	9.5	230	141	17
8192055	180	10.7	243	141	17
8192056	200	11.9	263	152	17
8192057	225	13.4	277	153	17
8192058	250	14.8	293	134	17
8192059	280	16.6	325	144	17
8192060	315	18.7	370	153	17

45° Elbow Long Spigot

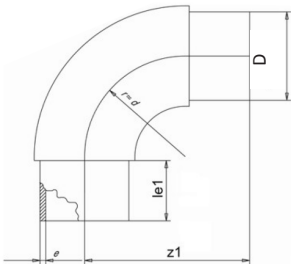
8192



Product Code	d	z	le	e	SDR
8192063	20	72	52	1.9	11
8192064	25	75	57	2.3	11
8192001	32	90	71	3	11
8192002	40	95	74	3.7	11
8192003	50	76	62	4.6	11
8192004	63	88	66	5.8	11
8192005	75	90	71	6.8	11
8192006	90	105	83	8.2	11
8192007	110	121	93	10	11
8192008	125	137	99	11.4	11
8192009	140	168	121	12.7	11
8192010	160	190	142	14.6	11
8192011	180	196	141	16.4	11
8192012	200	207	153	18.2	11
8192013	225	210	154	20.5	11
8192014	250	220	133	22.7	11
8192015	280	227	144	25.4	11
8192016	315	250	155	28.6	11
8192017	50	76	61	3	17
8192018	63	88	65	3.8	17
8192019	75	90	71	4.5	17
8192020	90	105	83	5.4	17
8192021	110	121	91	6.6	17
8192022	125	137	97	7.4	17
8192023	140	168	120	8.3	17
8192024	160	190	142	9.5	17
8192025	180	196	141	10.7	17
8192026	200	207	152	11.9	17
8192027	225	210	153	13.4	17
8192028	250	220	133	14.8	17
8192029	280	227	142	16.6	17
8192030	315	250	154	18.7	17

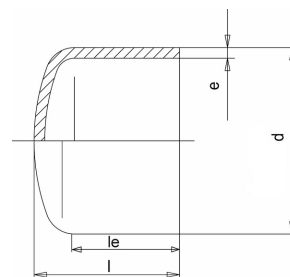
90° Bend Long Spigot

8191



Product Code	d	z1	le1	e	SDR
8191001	32	79	48	3	11
8191002	40	92	52	3.7	11
8191003	50	107	59	4.6	11
8191004	63	131	69	5.8	11
8191005	75	153	76	6.8	11
8191006	90	173	83	8.2	11
8191007	110	195	84	10	11
8191008	125	216	92	11.4	11
8191009	140	237	96	12.7	11
8191010	160	262	103	14.6	11
8191011	180	294	115	16.4	11
8191012	200	317	122	18.2	11
8191013	225	351	131	20.5	11
8191014	250	382	133	22.7	11
8191015	280	432	153	25.4	11
8191016	315	471	154	28.6	11
8191035	355	560	180	32.2	11
8191037	400	625	190	36.3	11
8191031	450	645	195	40.9	11
8191032	500	710	212	45.4	11
8191017	50	108	59	3	17
8191018	63	130	67	3.8	17
8191019	75	153	76	4.5	17
8191020	90	173	83	5.4	17
8191021	110	195	84	6.6	17
8191022	125	216	92	7.4	17
8191023	140	237	97	8.3	17
8191024	160	262	103	9.5	17
8191025	180	290	113	10.7	17
8191026	200	317	122	11.9	17
8191027	225	350	130	13.4	17
8191028	250	382	134	14.8	17
8191029	280	430	154	16.6	17
8191030	315	465	153	18.7	17
8191036	355	560	180	20.1	17.6
8191038	400	625	190	22.7	17.6
8191033	450	645	195	26.7	17
8191034	500	710	212	29.7	17

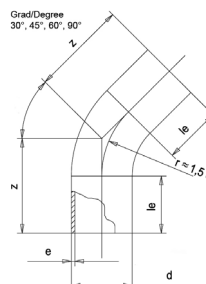
End Cap Long Spigot



Product Code	d	le	L	e	SDR
8196011	20	41	49	1.9	11
8196012	25	41	50	2.3	11
8139021	32	46	56	2.9	11
8139022	40	49	61	3.7	11
8139023	50	58	71	4.6	11
8139024	63	66	84	5.8	11
8139025	75	73	94	6.8	11
8139026	90	82	109	8.2	11
8139027	110	88	122	10	11
8139028	125	93	128	11.4	11
8139029	140	97	136	12.7	11
8139030	160	108	156	14.6	11
8139031	180	113	167	16.4	11
8139032	200	117	180	18.2	11
8139033	225	127	203	20.5	11
8196001	250	138	217	22.7	11
8196002	280	151	239	25.4	11
8196003	315	158	256	28.6	11
8196004	355	175	291	32.2	11
8196005	400	193	316	36.3	11
8100073	450	210	300	40.9	11
8100074	500	240	325	45.4	11
8100075	560	260	360	50.8	11
8100076	630	295	400	57.2	11
8139034	50	59	70	3	17
8139035	63	66	83	3.8	17
8139036	75	72	94	4.5	17
8139037	90	81	109	5.4	17
8139038	110	88	121	6.6	17
8139039	125	92	127	7.4	17
8139040	140	97	136	8.3	17
8139041	160	107	155	9.5	17
8139042	180	114	166	10.7	17
8139043	200	117	179	11.9	17
8139044	225	127	203	13.4	17
8196006	250	140	216	14.8	17
8196007	280	149	238	16.6	17
8196008	315	158	258	18.7	17
8196009	355	175	281	21.1	17
8196010	400	195	310	23.7	17
8100077	450	220	300	26.7	17
8100078	500	230	315	29.7	17
8100079	560	240	340	33.2	17
8100080	630	270	370	37.4	17

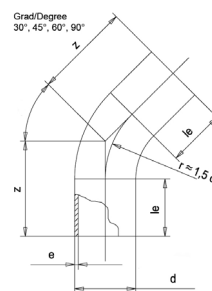
11° Seamless Bend

8100



Product Code	d	z	le	d	e	SDR
8100001	110	219	150	110	15.1	7.4
8100002	160	239	150	160	21.9	7.4
8100003	225	266	150	225	30.8	7.4
8100004	315	460	250	315	43.1	7.4
8101001	32	98	70	32	2.9	11
8101002	40	106	75	40	3.7	11
8101003	50	130	80	50	4.6	11
8101004	63	150	90	63	5.8	11
8101005	75	155	100	75	6.8	11
8101006	90	210	100	90	8.2	11
8101531	110	234	120	110	10	11
8101532	125	225	150	125	11.4	11
8101533	140	231	150	140	12.7	11
8101534	160	239	150	160	14.6	11
8101535	180	247	150	180	16.4	11
8101536	200	255	150	200	18.2	11
8101007	225	266	150	225	20.5	11
8101008	250	385	250	250	22.7	11
8101009	280	400	250	280	25.4	11
8101010	315	460	250	315	28.6	11
8101011	355	540	300	355	32.2	11
8101012	400	560	300	400	36.3	11
8101013	450	580	300	450	40.9	11
8101014	500	650	350	500	45.4	11
8101015	560	680	350	560	50.8	11
8101016	630	730	350	630	57.2	11
8101537	710	900	400	710	64.5	11
8101538	800	950	400	800	72.6	11
8101017	50	140	80	50	3	17
8101018	63	150	90	63	3.8	17
8101019	75	155	100	75	4.5	17
8101020	90	180	100	90	5.4	17
8101021	110	219	120	110	6.6	17
8101022	125	225	150	125	7.4	17
8101023	140	231	150	140	8.3	17
8101024	160	239	150	160	9.5	17
8101025	180	247	150	180	10.7	17
8101026	200	255	150	200	11.9	17
8101027	225	266	150	225	13.4	17
8101028	250	385	250	250	14.8	17
8101029	280	400	250	280	16.6	17
8101030	315	460	250	315	18.7	17
8101031	355	540	300	355	21.1	17
8101032	400	560	300	400	23.7	17
8101033	450	580	300	450	26.7	17
8101034	500	650	350	500	29.7	17
8101035	560	680	350	560	33.2	17
8101036	630	730	350	630	37.4	17
8101539	710	900	400	710	42.1	17
8101540	800	950	400	800	47.4	17
8100005	900	1150	450	900	53.3	17
8100006	1000	1200	450	1000	59.3	17

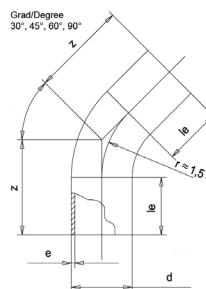
22° Seamless Bend



Product Code	d	z	le	e	SDR
8100007	110	219	150	15.1	7.4
8100008	160	239	150	21.9	7.4
8100009	225	266	150	30.8	7.4
8100010	315	460	250	43.1	7.4
8101037	32	98	70	2.9	11
8101038	40	106	75	3.7	11
8101039	50	130	80	4.6	11
8101040	63	150	90	5.8	11
8101041	75	155	100	6.8	11
8101042	90	210	100	8.2	11
8101043	110	234	120	10	11
8101044	125	225	150	11.4	11
8101045	140	231	150	12.7	11
8101046	160	239	150	14.6	11
8101047	180	247	150	16.4	11
8101048	200	255	150	18.2	11
8101049	225	266	150	20.5	11
8101050	250	385	250	22.7	11
8101051	280	400	250	25.4	11
8101052	315	460	250	28.6	11
8101053	355	540	300	32.2	11
8101054	400	560	300	36.3	11
8101055	450	580	300	40.9	11
8101056	500	650	350	45.4	11
8101057	560	680	350	50.8	11
8101058	630	730	350	57.2	11
8100011	710	900	400	64.5	11
8100012	800	950	400	72.6	11
8101059	50	140	80	3	17
8101060	63	150	90	3.8	17
8101061	75	155	100	4.5	17
8101062	90	180	100	5.4	17
8101063	110	219	120	6.6	17
8101064	125	225	150	7.4	17
8101065	140	231	150	8.3	17
8101066	160	239	150	9.5	17
8101067	180	247	150	10.7	17
8101068	200	255	150	11.9	17
8101069	225	266	150	13.4	17
8101070	250	385	250	14.8	17
8101071	280	400	250	16.6	17
8101072	315	460	250	18.7	17
8101073	355	540	300	21.1	17
8101074	400	560	300	23.7	17
8101075	450	580	300	26.7	17
8101076	500	650	350	29.7	17
8101077	560	680	350	33.2	17
8101078	630	730	350	37.4	17
8100013	710	900	400	42.1	17
8100014	800	950	400	47.4	17
8100015	900	1150	450	53.3	17
8100016	1000	1200	450	59.3	17

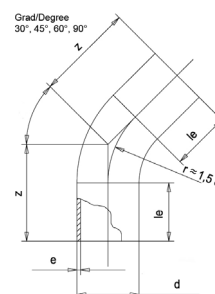
30° Seamless Bend

8100



Product Code	d	z	le	e	SDR
8100021	110	219	150	15.1	7.4
8100022	160	239	150	21.9	7.4
8100024	315	460	250	43.1	7.4
8100023	225	266	150	30.8	7.4
8101138	32	98	70	2.9	11
8101139	40	106	75	3.7	11
8101140	50	130	80	4.6	11
8101141	63	150	90	5.8	11
8101142	75	155	100	6.8	11
8101143	90	210	100	8.2	11
8101144	110	234	120	10	11
8101145	125	225	150	11.4	11
8101146	140	231	150	12.7	11
8101147	160	239	150	14.6	11
8101148	180	247	150	16.4	11
8101149	200	255	150	18.2	11
8101150	225	266	150	20.5	11
8101151	250	385	250	22.7	11
8101152	280	400	250	25.4	11
8101153	315	460	250	28.6	11
8101154	355	540	300	32.2	11
8101155	400	560	300	36.3	11
8101156	450	580	300	40.9	11
8101157	500	650	350	45.4	11
8101158	560	680	350	50.8	11
8101159	630	730	350	57.2	11
8100025	710	900	400	64.5	11
8100026	800	950	400	72.6	11
8101160	50	140	80	3	17
8101161	63	150	90	3.8	17
8101162	75	155	100	4.5	17
8101163	90	180	100	5.4	17
8101164	110	219	120	6.6	17
8101165	125	225	150	7.4	17
8101166	140	231	150	8.3	17
8101167	160	239	150	9.5	17
8101168	180	247	150	10.7	17
8101169	200	255	150	11.9	17
8101170	225	266	150	13.4	17
8101171	250	385	250	14.8	17
8101172	280	400	250	16.6	17
8101173	315	460	250	18.7	17
8101174	355	540	300	21.1	17
8101175	400	560	300	23.7	17
8101176	450	580	300	26.7	17
8101177	500	650	350	29.7	17
8101178	560	680	350	33.2	17
8101179	630	730	350	37.4	17
8100027	710	900	400	42.1	17
8100028	800	950	400	47.4	17
8100029	900	1150	450	53.3	17
8100030	1000	1200	450	59.3	17

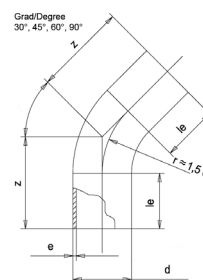
45° Seamless Bend



Product Code	d	z	le	e	SDR
8100035	110	243	150	15.1	7.4
8100036	160	274	150	21.9	7.4
8100037	225	315	150	30.8	7.4
8100038	315	535	250	43.1	7.4
8101239	32	105	70	2.9	11
8101240	40	110	75	3.7	11
8101241	50	139	80	4.6	11
8101242	63	161	90	5.8	11
8101243	75	168	100	6.8	11
8101244	90	227	100	8.2	11
8101245	110	255	120	10	11
8101246	125	253	150	11.4	11
8101247	140	262	150	12.7	11
8101248	160	274	150	14.6	11
8101249	180	287	150	16.4	11
8101250	200	299	150	18.2	11
8101251	225	315	150	20.5	11
8101252	250	440	250	22.7	11
8101253	280	460	250	25.4	11
8101254	315	535	250	28.6	11
8101255	355	620	300	32.2	11
8101256	400	650	300	36.3	11
8101257	450	680	300	40.9	11
8101258	500	760	350	45.4	11
8101259	560	800	350	50.8	11
8101260	630	870	350	57.2	11
8100039	710	900	400	64.5	11
8100040	800	950	400	72.6	11
8101261	50	149	80	3	17
8101262	63	161	90	3.8	17
8101263	75	168	100	4.5	17
8101264	90	197	100	5.4	17
8101265	110	243	120	6.6	17
8101266	125	253	150	7.4	17
8101267	140	262	150	8.3	17
8101268	160	274	150	9.5	17
8101269	180	287	150	10.7	17
8101270	200	299	150	11.9	17
8101271	225	315	150	13.4	17
8101272	250	440	250	14.8	17
8101273	280	460	250	16.6	17
8101274	315	535	250	18.7	17
8101275	355	620	300	21.1	17
8101276	400	650	300	23.7	17
8101277	450	680	300	26.7	17
8101278	500	760	350	29.7	17
8101279	560	800	350	33.2	17
8101280	630	870	350	37.4	17
8100041	710	900	400	42.1	17
8100042	800	950	400	47.4	17
8100043	900	1150	450	53.3	17
8100044	1000	1200	450	59.3	17

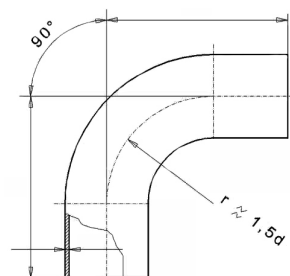
60° Seamless Bend

8100



Products Code	d	z	le	e	SDR
8100049	110	270	150	15.1	7.4
8100050	160	313	150	21.9	7.4
8100051	225	370	150	30.8	7.4
8100052	315	612	250	43.1	7.4
8101340	32	113	70	2.9	11
8101341	40	125	75	3.7	11
8101342	50	158	80	4.6	11
8101343	63	173	90	5.8	11
8101344	75	182	100	6.8	11
8101345	90	243	100	8.2	11
8101346	110	270	120	10	11
8101347	125	283	150	11.4	11
8101348	140	296	150	12.7	11
8101349	160	313	150	14.6	11
8101350	180	330	150	16.4	11
8101351	200	348	150	18.2	11
8101352	225	370	150	20.5	11
8101353	250	500	250	22.7	11
8101354	280	530	250	25.4	11
8101355	315	612	250	28.6	11
8101356	355	690	300	32.2	11
8101357	400	730	300	36.3	11
8101358	450	780	300	40.9	11
8101359	500	880	350	45.4	11
8101360	560	930	350	50.8	11
8101361	630	1000	350	57.2	11
8100053	710	1150	400	64.5	11
8100054	800	1250	400	72.6	11
8101362	50	158	80	3	17
8101363	63	173	90	3.8	17
8101364	75	182	100	4.5	17
8101365	90	213	100	5.4	17
8101366	110	270	120	6.6	17
8101367	125	283	150	7.4	17
8101368	140	296	150	8.3	17
8101369	160	313	150	9.5	17
8101370	180	330	150	10.7	17
8101371	200	348	150	11.9	17
8101372	225	370	150	13.4	17
8101373	250	500	250	14.8	17
8101374	280	530	250	16.6	17
8101375	315	612	250	18.7	17
8101376	355	690	300	21.1	17
8101377	400	730	300	23.7	17
8101378	450	780	300	26.7	17
8101379	500	880	350	29.7	17
8101380	560	930	350	33.2	17
8101381	630	1000	350	37.4	17
8100055	710	1150	400	42.1	17
8100056	800	1250	400	47.4	17
8100057	900	1450	450	53.3	17
8100058	1000	1600	450	59.3	17

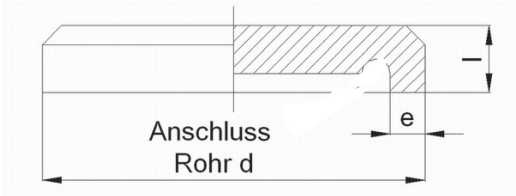
90° Seamless Bend



Product Code	d	z	le	e	SDR
8100063	110	340	150	15.1	7.4
8100064	160	415	150	21.9	7.4
8100065	225	513	150	30.8	7.4
8100066	315	803	250	43.1	7.4
8101489	32	133	70	2.9	11
8101490	40	150	75	3.7	11
8101491	50	185	80	4.6	11
8101492	63	220	90	5.8	11
8101493	75	238	100	6.8	11
8101494	90	310	100	8.2	11
8101495	110	315	120	10	11
8101496	125	363	150	11.4	11
8101497	140	385	150	12.7	11
8101498	160	415	150	14.6	11
8101499	180	445	150	16.4	11
8101500	200	475	150	18.2	11
8101501	225	513	150	20.5	11
8101502	250	650	250	22.7	11
8101503	280	695	250	25.4	11
8101504	315	803	250	28.6	11
8101505	355	900	300	32.2	11
8101506	400	980	300	36.3	11
8101507	450	1070	300	40.9	11
8101508	500	1200	350	45.4	11
8101509	560	1290	350	50.8	11
8101510	630	1400	350	57.2	11
8100067	710	1415	400	64.5	11
8100068	800	1550	400	72.6	11
8101511	50	195	80	3	17
8101512	63	220	90	3.8	17
8101513	75	238	100	4.5	17
8101514	90	280	100	5.4	17
8101515	110	340	120	6.6	17
8101516	125	363	150	7.4	17
8101517	140	385	150	8.3	17
8101518	160	415	150	9.5	17
8101519	180	445	150	10.7	17
8101520	200	475	150	11.9	17
8101521	225	513	150	13.4	17
8101522	250	650	250	14.8	17
8101523	280	695	250	16.6	17
8101524	315	803	250	18.7	17
8101525	355	900	300	21.1	17
8101526	400	980	300	23.7	17
8101527	450	1070	300	26.7	17
8101528	500	1200	350	29.7	17
8101529	560	1290	350	33.2	17
8101530	630	1400	350	37.4	17
8100069	710	1415	400	42.1	17
8100070	800	1550	400	47.4	17
8100071	900	1750	450	53.3	17
8100072	1000	1900	450	59.3	17

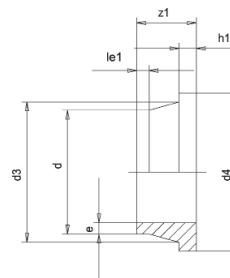
End Cap Short Spigot

8139



Product Code	d	l	e	SDR
8139001	250	55	22.7	11
8139002	280	60	25.4	11
8139003	315	65	28.6	11
8139004	355	75	32.2	11
8139005	400	80	36.3	11
8139006	450	90	40.9	11
8139007	500	85	45.4	11
8139008	560	100	50.8	11
8139009	630	105	57.2	11
8139010	250	50	14.8	17
8139012	315	60	18.7	17
8139013	355	65	21.1	17
8139014	400	70	23.7	17
8139015	450	80	26.7	17
8139016	500	85	29.7	17
8139017	560	100	33.2	17
8139018	630	100	37.4	17
8139019	710	120	42.1	17
8139020	800	130	47.4	17

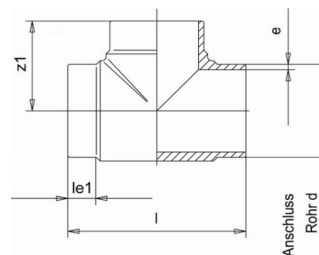
Stub Flange Short Spigot



Product Code	d	z1	h1	d3	d4	e	le	SDR
8106009	20	52	7	27	45	2	30	11
8106010	25	53	9	33	58	2.3	27	11
8106011	32	52	10	40	68	3	28	11
8106012	40	51	11	50	72	3.7	25	11
8106013	50	57	12	61	82	4.6	27	11
8106014	63	60	14	75	94	5.8	25	11
8106015	75	56	16	89	105	6.8	21	11
8106016	90	80	17	105	125	8.2	27	11
8106017	110	80	18	125	158	10	37	11
8106018	125	90	25	132	158	11.4	40	11
8106019	140	83	25	155	188	12.7	35	11
8106020	160	100	25	175	212	14.6	52	11
8106021	180	127	30	186	212	16.4	65	11
8106022	200	140	32	232	268	18.2	65	11
8106023	225	127	32	235	268	20.5	65	11
8106024	250	145	35	285	320	22.7	66	11
8106025	280	155	35	291	320	25.4	80	11
8106026	315	163	35	335	370	28.6	86	11
8106027	355	187	40	373	430	32.2	100	11
8106028	400	195	46	427	482	36.3	95	11
8106029	450	139	60	462	556	40.9	60	11
8106030	500	138	60	530	585	45.4	60	11
8100501	560	195	60	615	665	50.8	70	11
8100502	630	210	60	644	685	57.2	80	11
8100537	710	180	70	737	800	64.5	70	11
8106031	50	57	12	61	82	3	27	17
8106032	63	60	14	75	94	3.8	25	17
8106033	75	56	16	89	105	4.5	21	17
8106034	90	80	17	105	125	5.4	43	17
8106035	110	80	18	125	158	6.6	37	17
8106036	125	87	18	132	158	7.4	45	17
8106037	140	82	18	155	188	8.3	39	17
8106038	160	100	18	175	212	9.5	52	17
8106039	180	127	20	186	212	10.7	75	17
8106040	200	140	24	233	268	11.9	75	17
8106041	225	127	24	235	268	13.4	75	17
8106042	250	140	25	285	320	14.8	71	17
8106043	280	150	25	291	320	16.6	90	17
8106044	315	164	25	335	370	18.7	93	17
8106045	355	180	30	373	430	21.1	100	17
8106046	400	195	33	427	482	23.7	105	17
8106047	450	139	46	462	556	26.7	60	17
8106048	500	138	46	530	585	29.7	60	17
8106049	560	139	50	615	665	33.2	60	17
8106050	630	142	50	642	685	37.4	60	17
8100503	710	160	50	737	800	42.1	65	17
8100504	800	150	54	840	905	47.4	60	17
8100505	900	155	58	944	1005	53.3	50	17
8100506	1000	180	60	1047	1110	59.3	50	17

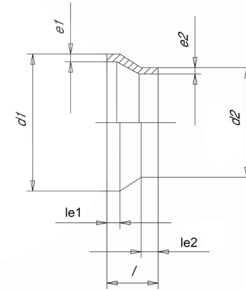
Elbow Short Spigot

8103



Product Code	d	z1	le1	Length	e	SDR
8103001	20	38	11	76	2	11
8103002	25	40	11	84	2.3	11
8103003	32	42	11	87	3	11
8103004	40	45	11	90	3.7	11
8103005	50	50	12	100	4.6	11
8103006	63	67	17	135	5.8	11
8103007	75	75	19	153	6.8	11
8103008	90	99	43	198	8.2	11
8103009	110	127	55	254	10	11
8103010	125	125	52	254	11.4	11
8103011	140	153	65	314	12.7	11
8103012	160	161	58	322	14.6	11
8103013	180	214	94	430	16.4	11
8103014	200	219	90	438	18.2	11
8103015	225	226	76	452	20.5	11
8103016	250	227	68	450	22.7	11
8103017	280	265	87	530	25.4	11
8103018	315	285	88	570	28.6	11
8103019	355	349	103	698	32.2	11
8103020	400	363	105	730	36.3	11
8103021	450	419	137	837	40.9	11
8103022	500	465	159	930	45.4	11
8103023	50	50	13	100	3	17
8103024	63	67	17	136	3.8	17
8103025	75	75	19	154	4.5	17
8103026	90	99	42	198	5.4	17
8103027	110	129	55	257	6.6	17
8103028	125	125	52	254	7.4	17
8103029	140	157	62	314	8.3	17
8103030	160	160	57	320	9.5	17
8103031	180	214	96	435	10.7	17
8103032	200	220	93	440	11.9	17
8103033	225	225	76	450	13.4	17
8103034	250	225	67	450	14.8	17
8103035	280	264	86	528	16.6	17
8103036	315	282	87	565	18.7	17
8103037	355	348	103	699	21.1	17
8103038	400	361	105	722	23.7	17
8103039	450	419	137	838	26.7	17
8103040	500	471	163	940	29.7	17

Concentric Reducer Short Spigot



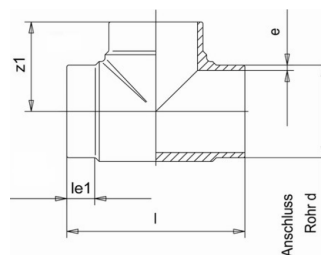
Product Code	d1 x d2	le1	le2	l	e1	e2	SDR
8149001	25 X 20	20	20	68	2.3	2	11
8149002	32 X 20	23	23	68	3	2	11
8149003	32 X 25	25	25	68	3	2.3	11
8149004	40 X 20	18	13	50	3.7	1.9	11
8149005	40 X 25	20	20	62	3.7	2.3	11
8149006	40 X 32	25	25	62	3.7	3	11
8149007	50 X 25	25	25	85	4.6	2.3	11
8149008	50 X 32	20	20	70	4.6	3	11
8149009	50 X 40	25	25	80	4.6	3.7	11
8149010	63 X 32	26	27	89	5.8	3	11
8149011	63 X 40	35	21	89	5.8	3.7	11
8149012	63 X 50	25	25	87	5.8	4.6	11
8149013	75 X 32	25	10	70	6.8	2.9	11
8149016	75 X 40	30	25	70	6.8	3.7	11
8149014	75 X 50	30	28	70	6.8	4.6	11
8149015	75 X 63	25	25	82	6.8	5.8	11
8149017	90 X 50	30	28	93	8.2	4.6	11
8149018	90 X 63	28	28	92	8.2	5.8	11
8149019	90 X 75	30	28	91	8.2	6.8	11
8149020	110 X 50	28	14	90	10	4.6	11
8149021	110 X 63	40	36	105	10	5.8	11
8149022	110 X 75	40	28	96	10	6.8	11
8149023	110 X 90	40	41	104	10	8.2	11
8149024	125 X 63	35	20	97	11.4	5.8	11
8149025	125 X 75	32	19	98	11.4	6.8	11
8149026	125 X 90	42	41	110	11.4	8.2	11
8149027	125 X 110	40	40	100	11.4	10	11
8149028	140 X 75	52	41	135	12.7	6.8	11
8149029	140 X 90	53	42	131	12.7	8.2	11
8149030	140 X 110	50	40	120	12.7	10	11
8149031	140 X 125	51	40	120	12.7	11.4	11
8149032	160 X 90	48	34	141	14.6	8.2	11
8149033	160 X 110	40	34	130	14.6	10	11
8149034	160 X 125	40	32	122	14.6	11.4	11
8149035	160 X 140	49	38	125	14.6	12.7	11
8149036	180 X 90	50	40	145	16.4	8.2	11
8149037	180 X 110	55	42	150	16.4	10	11
8149038	180 X 125	52	40	143	16.4	11.4	11
8149039	180 X 140	51	47	135	16.4	12.7	11
8149040	180 X 160	60	50	140	16.4	14.6	11
8149041	200 X 140	62	42	145	18.2	12.7	11
8149042	200 X 160	63	54	145	18.2	14.6	11
8149043	200 X 180	62	54	145	18.2	16.4	11
8149044	225 X 140	62	49	150	20.5	12.7	11
8149045	225 X 160	65	53	160	20.5	14.6	11
8149046	225 X 180	64	59	160	20.5	16.4	11
8149047	225 X 200	63	53	148	20.5	18.2	11
8149048	250 X 160	65	53	177	22.7	14.6	11
8149049	250 X 180	65	58	175	22.7	16.4	11
8149050	250 X 200	64	64	180	22.7	18.2	11
8149051	250 X 225	65	65	180	22.7	20.5	11
8149052	280 X 200	75	54	214	25.4	18.2	11
8149053	280 X 225	75	58	210	25.4	20.5	11
8149054	280 X 250	75	60	206	25.4	22.7	11
8149055	315 X 200	80	50	225	28.6	18.8	11
8149056	315 X 225	84	57	237	28.6	20.5	11

Concentric Reducer Short Spigot Cont.

8149

Product Code	d1 x d2	le1	le2	l	e1	e2	SDR
8100081	355 X 225	57	40	140	32.3	20.5	11
8100082	355 X 250	54	40	130	32.3	22.8	11
8100083	355 X 280	53	40	120	32.3	25.5	11
8100084	355 X 315	53	40	110	32.3	28.7	11
8100085	400 X 225	64	40	160	36.4	20.5	11
8100086	400 X 250	61	40	150	36.4	22.8	11
8100087	400 X 280	60	40	140	36.4	25.5	11
8100088	400 X 315	50	40	120	36.4	28.7	11
8100089	400 X 355	51	40	110	36.4	32.3	11
8100090	450 X 280	65	40	160	41	25.5	11
8100091	450 X 315	55	40	140	41	28.7	11
8100092	450 X 355	57	40	130	41	32.3	11
8100093	450 X 400	60	40	120	41	36.4	11
8100094	500 X 315	71	40	170	45.5	28.7	11
8100095	500 X 355	62	40	150	45.5	32.3	11
8100096	500 X 400	65	40	140	45.5	36.4	11
8100097	500 X 450	60	40	120	45.5	41	11
8100098	560 X 400	68	40	160	51	36.4	11
8100099	560 X 450	62	40	140	51	41	11
8100100	560 X 500	67	40	130	51	45.5	11
8100101	630 X 400	78	40	190	57.3	36.4	11
8100102	630 X 450	72	40	170	57.3	41	11
8100103	630 X 500	67	40	150	57.3	45.5	11
8100104	630 X 560	64	40	130	57.3	51	11
8100105	355 X 225	57	40	140	21.1	13.4	17
8100106	355 X 250	54	40	130	21.1	14.8	17
8100107	355 X 280	53	40	120	21.1	16.6	17
8100108	355 X 315	53	40	110	21.1	18.7	17
8100109	400 X 225	64	40	160	23.7	13.4	17
8100110	400 X 250	61	40	150	23.7	14.8	17
8100111	400 X 280	60	40	140	23.7	16.6	17
8100112	400 X 315	50	40	120	23.7	18.7	17
8100113	400 X 355	51	40	110	23.7	21.1	17
8100114	450 X 280	65	40	160	26.7	16.6	17
8100115	450 X 315	55	40	140	26.7	18.7	17
8100116	450 X 355	57	40	130	26.7	21.1	17
8100117	450 X 400	60	40	120	26.7	23.7	17
8100118	500 X 315	71	40	170	29.7	18.7	17
8100119	500 X 355	62	40	150	29.7	21.1	17
8100120	500 X 400	65	40	140	29.7	23.7	17
8100121	500 X 450	60	40	120	29.7	26.7	17
8100122	560 X 400	68	40	160	33.2	23.7	17
8100123	560 X 450	62	40	140	33.2	26.7	17
8100124	560 X 500	67	40	130	33.2	29.7	17
8100125	630 X 400	78	40	190	37.4	23.7	17
8100126	630 X 450	72	40	170	37.4	26.7	17
8100127	630 X 500	67	40	150	37.4	29.7	17
8100128	630 X 560	64	40	130	37.4	33.2	17
8100129	710 X 500	84	40	190	42.1	29.7	17
8100130	710 X 560	81	40	170	42.1	33.2	17
8100131	710 X 630	71	40	140	42.1	37.4	17
8100132	800 X 560	85	40	200	47.4	33.2	17
8100133	800 X 630	85	40	180	47.4	37.4	17
8100134	800 X 710	78	40	150	47.4	42.1	17
8100135	900 X 630	96	40	220	53.3	37.4	17
8100136	900 X 710	89	40	190	53.3	42.1	17
8100137	900 X 800	85	40	160	53.3	47.4	17
8100138	1000 X 710	101	40	230	59.3	42.1	17
8100139	1000 X 800	86	40	190	59.3	47.4	17
8100140	1000 X 900	75	40	150	59.3	53.3	17

Tee Short Spigot



Product Code	d	z1	le1	Length	e	SDR
8103001	20	38	11	76	2	11
8103002	25	40	11	84	2.3	11
8103003	32	42	11	87	3	11
8103004	40	45	11	90	3.7	11
8103005	50	50	12	100	4.6	11
8103006	63	67	17	135	5.8	11
8103007	75	75	19	153	6.8	11
8103008	90	99	43	198	8.2	11
8103009	110	127	55	254	10	11
8103010	125	125	52	254	11.4	11
8103011	140	153	65	314	12.7	11
8103012	160	161	58	322	14.6	11
8103013	180	214	94	430	16.4	11
8103014	200	219	90	438	18.2	11
8103015	225	226	76	452	20.5	11
8103016	250	227	68	450	22.7	11
8103017	280	265	87	530	25.4	11
8103018	315	285	88	570	28.6	11
8103019	355	349	103	698	32.2	11
8103020	400	363	105	730	36.3	11
8103021	450	419	137	837	40.9	11
8103022	500	465	159	930	45.4	11
8103023	50	50	13	100	3	17
8103024	63	67	17	136	3.8	17
8103025	75	75	19	154	4.5	17
8103026	90	99	42	198	5.4	17
8103027	110	129	55	257	6.6	17
8103028	125	125	52	254	7.4	17
8103029	140	157	62	314	8.3	17
8103030	160	160	57	320	9.5	17
8103031	180	214	96	435	10.7	17
8103032	200	220	93	440	11.9	17
8103033	225	225	76	450	13.4	17
8103034	250	225	67	450	14.8	17
8103035	280	264	86	528	16.6	17
8103036	315	282	87	565	18.7	17
8103037	355	348	103	699	21.1	17
8103038	400	361	105	722	23.7	17
8103039	450	419	137	838	26.7	17
8103040	500	471	163	940	29.7	17

Backing Flanges - AS2129 Table D (700 kPa up to 50°C)

								GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
20	DN 15 (1/2")	95	5	67	4	14	M12	8900001	8920001-040 8920001-050 8920001-060	8910001	8930001-040 8930001-050 8930001-060	8940001
25	DN 20 (3/4")	100	5	73	4	14	M12	8900002	8920002-040 8920002-050 8920002-060	8910002	8930002-040 8930002-050 8930002-060	8940002
32	DN25 (1")	115	5	83	4	14	M12	8900003	8920003-040 8920003-050 8920003-060	8910003	8930003-040 8930003-050 8930003-060	8940003
40	DN32 (1-1/4")	120	6	87	4	14	M12	8900004	8920004-040 8920004-050 8920004-060	8910004	8930004-040 8930004-050 8930004-060	8940004
50	DN40 (1-1/2")	135	6	98	4	14	M12	8900005	8920005-040 8920005-050 8920005-060	8910005	8930005-040 8930005-050 8930005-060	8940005
63	DN50 (2")	150	8	114	4	18	M16	8900006	8920006-065 8920006-080 8920006-100	8910006	8930006-065 8930006-080 8930006-100	8940006
75	DN65 (2-1/2")	165	8	127	4	18	M16	8900007	8920007-065 8920007-080 8920007-100	8910007	8930007-065 8930007-080 8930007-100	8940007
90	DN80 (3")	185	10	146	4	18	M16	8900008	8920008-065 8920008-080 8920008-100	8910008	8920008-065 8920008-080 8920008-100	8940008
110	DN100 (4")	215	10	178	4	18	M16	8900009	8920009-065 8920009-080 8920009-100	8910009	8930009-065 8930009-080 8930009-100	8940009
125	DN100 (4")	215	10	178	4	18	M16	8900010	8920010-065 8920010-080 8920010-100	8910010	8930010-065 8930010-080 8930010-100	8940046
125	DN125 (5")	255	13	210	8	18	M16	8900011	8920011-065 8920011-080 8920011-100	8910011	8930011-065 8930011-080 8930011-100	8940010
140	DN125 (5")	255	13	210	8	18	M16	8900012	8920012-065 8920012-080 8920012-100	8910012	8930012-065 8930012-080 8930012-100	8940047
160	DN150 (6")	280	13	235	8	18	M16	8900013	8920013-065 8920013-080 8920013-100	8910013	8930013-065 8930013-080 8930013-100	8940011
180	DN150 (6")	280	13	235	8	18	M16	8900014	8920014-065 8920014-080 8920014-100	8910014	8930014-065 8930014-080 8930014-100	8940048
200	DN200 (8")	335	13	292	8	18	M16	8900015	8920015-065 8920015-080 8920015-100	8910015	8930015-065 8930015-080 8930015-100	8940012
225	DN200 (8")	335	13	292	8	18	M16	8900016	8920016-065 8920016-080 8920016-100	8910016	8930016-065 8930016-080 8930016-100	8940049
250	DN250 (10")	405	16	356	8	22	M20	8900017	8920017-110 8920017-120 8920017-130	8910017	8930017-110 8930017-120 8930017-130	8940013
280	DN250 (10")	405	16	356	8	22	M20	8900018	8920018-110 8920018-120 8920018-130	8910018	8930018-110 8930018-120 8930018-130	8940050
315	DN300 (12")	455	19	406	12	22	M20	8900019	8920019-110 8920019-120 8920019-130	8910019	8930019-110 8930019-120 8930019-130	8940014
355	DN350 (14")	525	22	470	12	26	M24	8900020	8920020-150 8920020-200 8920020-240	8910020	8930020-160 8930020-200 8930020-250	8940015
400	DN400 (16")	580	22	521	12	26	M24	8900021	8920021-150 8920021-200 8920021-240	8910021	8930021-160 8930021-200 8930021-250	8940016
450	DN450 (18")	640	25	584	12	26	M24	8900022	8920021-150 8920021-200 8920021-240	8910022	8930021-160 8930021-200 8930021-250	8940017

Backing Flanges - AS2129 Table D (700 kPa up to 50°C) Cont.

								GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
500	DN500 (20")	705	29	641	16	26	M24	8900023	8920021-150 8920021-200 8920021-240	8910023	8930021-160 8930021-200 8930021-250	8940018
560	DN550 (22")	760	29	699	16	30	M27	8900024	8920024	8910024	8930024	8940019
630	DN600 (24")	825	32	756	16	30	M27	8900025	8920025	8910025	8930025	8940020
710	DN700 (28")	910	35	845	20	30	M27	8900026	8920026	8910026	8930026	8940021
800	DN800 (32")	1060	41	984	20	36	M33	8900027	8920027	8910027	8930027	8940022
900	DN900 (36")	1175	48	1092	24	36	M33	8900028	8920028	8910028	8930028	8940023
1000	DN1000 (40")	1255	51	1175	24	36	M33	8900029	8920029	8910029	8930029	8940024
1200	DN1200 (48")	1490	60	1410	32	36	M33	8900030	8920030	8910030	8930030	8940025

Gasket Material: EPDM
T_G: 3mm

Note: All dimensions in mm unless otherwise noted.
Galvanised bolts are not recommended for use with stainless steel flanges due to potential galvanic corrosion issues.

Backing Flanges - AS2129 Table E (1400 kPa up to 50°C)

								GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
20	DN 15 (1/2")	95	6	67	4	14	M12	8900031	8920031-040 8920031-050 8920031-060	8910031	8930031-040 8930031-050 8930031-060	8940001
25	DN 20 (3/4")	100	6	73	4	14	M12	8900032	8920032-040 8920032-050 8920032-060	8910032	8930032-040 8930032-050 8930032-060	8940002
32	DN25 (1")	115	7	83	4	14	M12	8900033	8920033-040 8920033-050 8920033-060	8910033	8930033-040 8930033-050 8930033-060	8940003
40	DN32 (1-1/4")	120	8	87	4	14	M12	8900034	8920034-040 8920034-050 8920034-060	8910034	8930034-040 8930034-050 8930034-060	8940004
50	DN40 (1-1/2")	135	9	98	4	14	M12	8900035	8920035-040 8920035-050 8920035-060	8910035	8930035-040 8930035-050 8930035-060	8940005
63	DN50 (2")	150	10	114	4	18	M16	8900036	8920036-065 8920036-080 8920036-100	8910036	8930036-065 8930036-080 8930036-100	8940006
75	DN65 (2-1/2")	165	10	127	4	18	M16	8900037	8920037-065 8920037-080 8920037-100	8910037	8930037-065 8930037-080 8930037-100	8940007
90	DN80 (3")	185	11	146	4	18	M16	8900038	8920038-065 8920038-080 8920038-100	8910038	8930038-065 8930038-080 8930038-100	8940008
110	DN100 (4")	215	13	178	8	18	M16	8900039	8920039-065 8920039-080 8920039-100	8910039	8930039-065 8930039-080 8930039-100	8940026
125	DN100 (4")	215	13	178	8	18	M16	8900040	8920040-065 8920040-080 8920040-100	8910040	8930040-065 8930040-080 8930040-100	8940051
125	DN125 (5")	255	14	210	8	18	M16	8900041	8920041-065 8920041-080 8920041-100	8910041	8930041-065 8930041-080 8930041-100	8940010
140	DN125 (5")	255	14	210	8	18	M16	8900042	8920042-065 8920042-080 8920042-100	8910042	8930042-065 8930042-080 8930042-100	8940047
160	DN150 (6")	280	17	235	8	22	M20	8900043	8920043-110 8920043-120 8920043-130	8910043	8930043-110 8930043-120 8930043-130	8940011
180	DN150 (6")	280	17	235	8	22	M20	8900044	8920044-110 8920044-120 8920044-130	8910044	8930044-110 8930044-120 8930044-130	8940048
200	DN200 (8")	335	19	292	8	22	M20	8900045	8920045-110 8920045-120 8920045-130	8910045	8930045-110 8930045-120 8930045-130	8940012
225	DN200 (8")	335	19	292	8	22	M20	8900046	8920046-110 8920046-120 8920046-130	8910046	8930046-110 8930046-120 8930046-130	8940049
250	DN250 (10")	405	22	356	12	22	M20	8900047	8920047-110 8920047-120 8920047-130	8910047	8930047-110 8930047-120 8930047-130	8940027
280	DN250 (10")	405	22	356	12	22	M20	8900048	8920048-110 8920048-120 8920048-130	8910048	8930048-110 8930048-120 8930048-130	8940052
315	DN300 (12")	455	25	406	12	26	M24	8900049	8920049-150 8920049-200 8920049-240	8910049	8930049-160 8930049-200 8930049-250	8940014
355	DN350 (14")	525	29	470	12	26	M24	8900050	8920050-150 8920050-200 8920050-240	8910050	8930050-160 8930050-200 8930050-250	8940015

Backing Flanges - AS2129 Table E (1400 kPa up to 50°C) Cont.

								GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
400	DN400 (16")	580	32	521	12	26	M24	8900051	8920051-150 8920051-200 8920051-240	8910051	8930051-160 8930051-200 8930051-250	8940016
450	DN450 (18")	640	35	584	16	26	M24	8900052	8920052-150 8920052-200 8920052-240	8910052	8930052-160 8930052-200 8930052-250	8940028
500	DN500 (20")	705	38	641	16	26	M24	8900053	8920053-150 8920053-200 8920053-240	8910053	8930053-160 8930053-200 8930053-250	8940018
560	DN550 (22")	760	44	699	16	30	M27	8900054	8920054	8910054	8930054	8940019
630	DN600 (24")	825	48	756	16	33	M30	8900055	8920055	8910055	8930055	8940020
710	DN700 (28")	910	51	845	20	33	M30	8900056	8920056	8910056	8930056	8940021
800	DN800 (32")	1060	54	984	20	36	M33	8900057	8920057	8910057	8930057	8940022
900	DN900 (36")	1175	64	1092	24	36	M33	8900058	8920058	8910058	8930058	8940023
1000	DN1000 (40")	1255	67	1175	24	39	M36	8900059	8920059	8910059	8930059	8940024
1200	DN1200 (48")	1490	79	1410	32	39	M36	8900060	8920060	8910060	8930060	8940025

Gasket Material: EPDM
T_G: 3mm

Note: All dimensions in mm unless otherwise noted.
Galvanised bolts are not recommended for use with stainless steel flanges due to potential galvanic corrosion issues.

Backing Flanges - AS4087 PN16 (up to 80°C)

								GALVANISED		316 SS		
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	GASKET
63	DN50 (2")	150	11	114	4	18	M16	8900036	8920036-065 8920036-080 8920036-100	8910036	8930036-065 8930036-080 8930036-100	8940006
75	DN65 (2-1/2")	165	11	127	4	18	M16	8900037	8920037-065 8920037-080 8920037-100	8910037	8930037-065 8930037-080 8930037-100	8940007
90	DN80 (3")	185	11	146	4	18	M16	8900061	8920061-065 8920061-080 8920061-100	8910061	8930061-065 8930061-080 8930061-100	8940008
110	DN100 (4")	215	13	178	4	18	M16	8900062	8920062-065 8920062-080 8920062-100	8910062	8930062-065 8930062-080 8930062-100	8940009
125	DN100 (4")	215	13	178	4	18	M16	8900063	8920063-065 8920063-080 8920063-100	8910063	8930063-065 8930063-080 8930063-100	8940046
160	DN150 (6")	280	13	235	8	18	M16	8900013	8920013-065 8920013-080 8920013-100	8910013	8930013-065 8930013-080 8930013-100	8940011
180	DN150 (6")	280	13	235	8	18	M16	8900014	8920014-065 8920014-080 8920014-100	8910014	8930014-065 8930014-080 8930014-100	8940048
200	DN200 (8")	335	19	292	8	18	M16	8900064	8920064-065 8920064-080 8920064-100	8910064	8930064-065 8930064-080 8930064-100	8940012
225	DN200 (8")	335	19	292	8	18	M16	8900065	8920065-065 8920065-080 8920065-100	8910065	8930065-065 8930065-080 8930065-100	8940049
250	DN250 (10")	405	19	356	8	22	M20	8900066	8920066-110 8920066-120 8920066-130	8910066	8930066-110 8930066-120 8930066-130	8940013
280	DN250 (10")	405	19	356	8	22	M20	8900067	8920067-110 8920067-120 8920067-130	8910067	8930067-110 8930067-120 8930067-130	8940050
315	DN300 (12")	455	23	406	12	22	M20	8900068	8920068-110 8920068-120 8920068-130	8910068	8930068-110 8930068-120 8930068-130	8940014
355	DN350 (14")	525	30	470	12	26	M24	8900050	8920050-150 8920050-200 8920050-240	8910050	8930050-160 8930050-200 8930050-250	8940015
400	DN400 (16")	580	30	521	12	26	M24	8900069	8920069-150 8920069-200 8920069-240	8910069	8930069-160 8930069-200 8930069-250	8940016
450	DN450 (18")	640	30	584	12	26	M24	8900070	8920070-150 8920070-200 8920070-240	8910070	8930070-160 8930070-200 8930070-250	8940017
500	DN500 (20")	705	38	641	16	26	M24	8900053	8920053-150 8920053-200 8920053-240	8910053	8930053-160 8930053-200 8930053-250	8940018
630	DN600 (24")	825	48	756	16	30	M27	8900071	8920071	8910071	8930071	8940020
710	DN700 (28")	910	56	845	20	30	M27	8900072	8920072	8910072	8930072	8940021
800	DN800 (32")	1060	56	984	20	36	M33	8900073	8920073	8910073	8930073	8940022
900	DN900 (36")	1175	66	1092	24	36	M33	8900074	8920074	8910074	8930074	8940023
1000	DN1000 (40")	1255	66	1175	24	36	M33	8900075	8920075	8910075	8930075	8940024
1200	DN1200 (48")	1490	76	1410	32	36	M33	8900076	8920076	8910076	8930076	8940025

Gasket Material: Fibre
T_g: 1.5mm

Note: All dimensions in mm unless otherwise noted.
Galvanised bolts are not recommended for use with stainless steel flanges due to potential galvanic corrosion issues.

Backing Flanges - AS4087 PN21 (up to 80°C)

								GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
63	DN50 (2")	165	15	127	4	18	M16	8900077	8920077-065 8920077-080 8920077-100	8910077	8930077-065 8930077-080 8930077-100	8950001
75	DN65 (2-1/2")	185	15	146	8	18	M16	8900078	8920078-065 8920078-080 8920078-100	8910078	8930078-065 8930078-080 8930078-100	8950002
90	DN80 (3")	205	15	165	8	18	M16	8900079	8920079-065 8920079-080 8920079-100	8910079	8930079-065 8930079-080 8930079-100	8950003
110	DN100 (4")	230	19	191	8	18	M16	8900080	8920080-065 8920080-080 8920080-100	8910080	8930080-065 8930080-080 8930080-100	8950004
125	DN100 (4")	230	19	191	8	18	M16	8900081	8920081-065 8920081-080 8920081-100	8910081	8930081-065 8930081-080 8930081-100	8950020
160	DN150 (6")	305	24	260	12	22	M20	8900082	8920082-110 8920082-120 8920082-130	8910082	8930082-110 8930082-120 8930082-130	8950006
180	DN150 (6")	305	24	260	12	22	M20	8900083	8920083-110 8920083-120 8920083-130	8910083	8930083-110 8930083-120 8930083-130	8950021
200	DN200 (8")	370	24	324	12	22	M20	8900084	8920084-110 8920084-120 8920084-130	8910084	8930084-110 8930084-120 8930084-130	8950007
225	DN200 (8")	370	24	324	12	22	M20	8900085	8920085-110 8920085-120 8920085-130	8910085	8930085-110 8930085-120 8930085-130	8950022
250	DN250 (10")	430	30	381	12	26	M24	8900086	8920086-150 8920086-200 8920086-240	8910086	8930086-160 8930086-200 8930086-250	8950008
280	DN250 (10")	430	30	381	12	26	M24	8900087	8920086-150 8920086-200 8920086-240	8910087	8930087-160 8930087-200 8930087-250	8950023
315	DN300 (12")	490	30	438	16	26	M24	8900088	8920088-150 8920088-200 8920088-240	8910088	8930088-160 8930088-200 8930088-250	8950009
355	DN350 (14")	550	30	495	16	30	M27	8900089	8920089	8910089	8930089	8950010
400	DN400 (16")	610	38	552	20	30	M27	8900090	8920090	8910090	8930090	8950011
450	DN450 (18")	675	38	610	20	33	M30	8900091	8920091	8910091	8930091	8950012
500	DN500 (20")	735	48	673	24	33	M30	8900092	8920092	8910092	8930092	8950013
630	DN600 (24")	850	58	781	24	36	M33	8900093	8920093	8910093	8930093	8950014
710	DN700 (28")	935	58	857	24	36	M33	8900094	8920094	8910094	8930094	8950015
800	DN800 (32")	1060	58	984	28	36	M33	8900095	8920095	8910095	8930095	8950016
900	DN900 (36")	1185	68	1105	32	39	M36	8900096	8920096	8910096	8930096	8950017
1000	DN1000 (40")	1275	78	1194	36	39	M36	8900097	8920097	8910097	8930097	8950018
1200	DN1200 (48")	1530	88	1441	40	42	M39	8900098	8920098	8910098	8930098	8950019

Gasket Material: Fibre
T_G: 1.5mm

Note: All dimensions in mm unless otherwise noted.
Galvanised bolts are not recommended for use with stainless steel flanges due to potential galvanic corrosion issues.

Backing Flanges - AS4087 PN35 (up to 80°C)

								GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
63	DN50 (2")	165	19	127	4	18	M16	8900099	8920099-110	8910099	8930099-110	8950001
75	DN65 (2-1/2")	185	19	146	8	18	M16	8900100	8920100-110	8910100	8930100-110	8950002
90	DN80 (3")	205	24	165	8	18	M16	8900101	8920101-110	8910101	8930101-110	8950003
110	DN100 (4")	230	24	191	8	18	M16	8900102	8920102-110	8910102	8930102-110	8950004
125	DN100 (4")	230	24	191	8	18	M16	8900103	8920103-110	8910103	8930103-110	8950020
160	DN150 (6")	305	31	260	12	22	M20	8900104	8920104-130	8910104	8930104-130	8950006
180	DN150 (6")	305	31	260	12	22	M20	8900105	8920105-130	8910105	8930105-130	8950021
200	DN200 (8")	370	31	324	12	22	M20	8900106	8920106-130	8910106	8930106-130	8950007
225	DN200 (8")	370	31	324	12	22	M20	8900107	8920107-130	8910107	8930107-130	8950022
250	DN250 (10")	430	38	381	12	26	M24	8900108	8920108-150	8910108	8930108-150	8950008
280	DN250 (10")	430	38	381	12	26	M24	8900109	8920109-150	8910109	8930109-150	8950023
315	DN300 (12")	490	38	438	16	26	M24	8900110	8920110-150	8910110	8930110-150	8950009
355	DN350 (14")	550	48	495	16	30	M27	8900111	8920111-170	8910111	8930111-170	8950010
400	DN400 (16")	610	48	552	20	30	M27	8900112	8920112-170	8910112	8930112-170	8950011
450	DN450 (18")	675	58	610	20	33	M30	8900113	8920113-190	8910113	8930113-190	8950012
500	DN500 (20")	735	58	673	24	33	M30	8900114	8920114-190	8910114	8930114-190	8950013
630	DN600 (24")	850	68	781	24	36	M33	8900115	8920115-210	8910115	8930115-210	8950014
710	DN700 (28")	935	78	857	24	36	M33	8900116	8920116-210	8910116	8930116-210	8950015
800	DN800 (32")	1060	84	984	28	36	M33	8900117	8920117-210	8910117	8930117-210	8950016
900	DN900 (36")	1185	94	1105	32	39	M36	8900118	8920118	8910118	8930118	8950017
1000	DN1000 (40")	1275	98	1194	36	39	M36	8900119	8920119	8910119	8930119	8950018
1200	DN1200 (48")	1530	108	1441	40	42	M39	8900120	8920120	8910120	8930120	8950019

Gasket Material: Fibre
T_g: 1.5mm

Note: All dimensions in mm unless otherwise noted.
Galvanised bolts are not recommended for use with stainless steel flanges due to potential galvanic corrosion issues.

Backing Flanges - ASME B16.5 ANSI 150#

								A105 GALVANISED		316 SS		GASKET
PE SIZE	FLANGE SIZE	OD	TCK T _F	PCD	# HOLES	Ø HOLE	BOLT TYPE	FLANGE	BOLT SET - LENGTH (mm)	FLANGE	BOLT SET LENGTH (mm)	
20	DN15 (1/2")	88.9	9.7	60.5	4	15.9	1/2"	8900121	8920121-40 8920121-50 8920121-60	8910121	8930121-40 8930121-50 8930121-60	8940029
25	DN20 (3/4")	98.6	11.2	69.9	4	15.9	1/2"	8900122	8920122-40 8920122-50 8920122-60	8910122	8930122-40 8930122-50 8930122-60	8940030
32	DN25 (1")	108	12.7	79.2	4	15.9	1/2"	8900123	8920123-40 8920123-50 8920123-60	8910123	8930123-40 8930123-50 8930123-60	8940031
40	DN32 (1-1/4")	117.3	14.2	88.9	4	15.9	1/2"	8900124	8920124-40 8920124-50 8920124-60	8910124	8930124-40 8930124-50 8930124-60	8940032
50	DN40 (1-1/2")	127	15.7	98.6	4	15.9	1/2"	8900125	8920125-40 8920125-50 8920125-60	8910125	8930125-40 8930125-50 8930125-60	8940033
63	DN50 (2")	152.4	17.5	120.7	4	19.1	5/8"	8900126	8920126-65 8920126-80 8920126-100	8910126	8930126-65 8930126-80 8930126-100	8940034
75	DN65 (2-1/2")	177.8	20.6	139.7	4	19.1	5/8"	8900127	8920127-65 8920127-80 8920127-100	8910127	8930127-65 8930127-80 8930127-100	8940035
90	DN80 (3")	190.5	22.4	152.4	4	19.1	5/8"	8900128	8920128-65 8920128-80 8920128-100	8910128	8930128-65 8930128-80 8930128-100	8940036
110	DN100 (4")	228.6	22.4	190.5	8	19.1	5/8"	8900129	8920129-110	8910129	8930129-110	8940037
125	DN100 (4")	228.6	22.4	190.5	8	19.1	5/8"	8900130	8920130-110	8910130	8930130-110	8940053
125	DN125 (5")	254.0	22.4	215.9	8	22.2	3/4"	8900131	8920131-130	8910131	8930131-130	8940038
140	DN125 (5")	254.0	22.4	215.9	8	22.2	3/4"	8900132	8920132-130	8910132	8930132-130	8940054
160	DN150 (6")	279.4	23.9	241.3	8	22.2	3/4"	8900133	8920133-130	8910133	8930133-130	8940039
180	DN150 (6")	279.4	23.9	241.3	8	22.2	3/4"	8900134	8920134-130	8910134	8930134-130	8940055
200	DN200 (8")	342.9	26.9	298.5	8	22.2	3/4"	8900135	8920135-130	8910135	8930135-130	8940040
225	DN200 (8")	342.9	26.9	298.5	8	22.2	3/4"	8900136	8920136-130	8910136	8930136-130	8940056
250	DN250 (10")	406.4	28.4	362.0	12	25.4	7/8"	8900137	8920137-150	8910137	8930137-150	8940041
280	DN250 (10")	406.4	28.4	362.0	12	25.4	7/8"	8900138	8920138-150	8910138	8930138-150	8940057
315	DN300 (12")	482.6	30.2	431.8	12	25.4	7/8"	8900139	8920139-150	8910139	8930139-150	8940042
355	DN350 (14")	533.4	33.3	476.3	12	28.6	1	8900140	8920140-170	8910140	8930140-170	8940043
400	DN400 (16")	596.9	35.1	539.8	16	28.6	1	8900141	8920141-170	8910141	8930141-170	8940044
450	DN450 (18")	635.0	38.1	577.9	16	31.8	1.1/8"	8900142	8920142-190	8910142	8930142-190	8940045

*Plasson offers

M12 for 1/2"

M16 for 5/8"

M20 for 3/4"

M24 for 7/8"

M27 for 1"

M30 for 1.1/8"

Please check suitability for your system.

Gasket Material: EPDM

T_G: 3mm

Note: All dimensions in mm unless otherwise noted.

Galvanised bolts are not recommended for use with stainless steel flanges due to potential galvanic corrosion issues.





INSTALLATION AND SPECIFICATIONS

Technical Specifications

Compression Fittings

Body: Polypropylene, high-grade copolymer.

Nut: Polypropylene, high-grade copolymer.

Grip Ring: Acetal POM (CPVC also available).

Seal: NBR or EPDM (FPM also available).

Reinforcing Ring: Stainless steel on all female offtakes from 1¼" up to 4".

Bolts (160mm fittings): Plated steel.

Nuts (160mm fittings): Stainless steel.

Flange dimensions in accordance with: ISO 7005-1 (TABLE 11), BS 4504: 1989 (TABLE 11), DIN 2501 (PN 16 TABLE), AS/NZS 4331. Metal backing rings to be used with all flanges.

Note: Galvanised via electroplating then protected with a proprietary passivation process.

Valves

Valves - PP (340 / 304)

Body: Polypropylene high grade copolymer.

O-Ring: NBR unless otherwise noted in product description.

Spring: (Items 03067, 03039) Stainless Steel.

Valves - PVC (1114 / 1115 / 1135)

Injection-moulded components: PVC-U.

O-Rings: EPDM.

Springs: Stainless steel 316.

Gaskets (on ball): PTFE (polytetrafluoroethylene).

Valves – Polymaide (3703)

Body & Spindle: Glass Reinforced Polyamide

Ball: Glass Reinforced Polypropylene.

Ball Seat: Polyethylene.

Handle: Polypropylene.

Seals: EPDM.

Saddles

Mechanical:

Body: Polypropylene, high-grade copolymer.

Bolts and Nuts: Varies.

Reinforcing Rings: Stainless steel.

Seal: Nitrile rubber (NBR / EPDM).

Plassaddle:

Main Nut: Glass Reinforced Polyamide

Clamp Arms: Glass Reinforced Polypropylene.

Pressurised Body: Polypropylene PPB.

Seal: EPDM.

Tapper Components:

Body and Compression nut: Polypropylene, high grade copolymer.

Grip Ring: Acetal (POM).

Seal: NBR .

Cutter: Lead Free DZR Brass.

Threaded Fittings

Body: Polypropylene, high-grade copolymer.

Reinforcing Ring: Stainless Steel.

Operating Temperatures

Refer to the PIPA POP013 guidelines.

Link: <https://pipa.com.au>

Chemical Resistance

PLASSON Fittings are supplied, as standard, with polyacetal split rings and NBR O-rings which are suitable for water. For aggressive chemical applications CPVC split rings and EPDM or FPM O-rings can be supplied to produce a higher chemical resistance.

Quality Certificates

Plasson fittings are tested and approved according to ISO 17885 (replaced ISO 14236), water and AS/NZ 4129.

Threads

All threads conform to ISO-7/1 (BSPT), BS 21 - 1973, DIN 2999, NEN 3258, AS 1722 Part 1 - 1975.

All internal (female) threads smaller than 3" are parallel (Rp).

All other threads (male and female) are tapered (R).

Plasson recommend the use of PTFE tape in threaded connections.

Installation

Before installation ensure that the end of the pipe to be inserted into the fitting is free of scratches and other imperfections and that both the pipe and the fitting itself are clean of sand, mud, stones etc.

Do not over tighten nut when closing. Never use wrenches or spanners with handle lengths longer than 46 cm - excessive torque during tightening can spread nut cone and result in pull outs. If fittings are reused, Plasson recommend replacing the grip ring with a new one.

Electrofusion

Plasson Electrofusion fittings are globally recognized as best in class. Most fittings include SmartFuse resistors built into the welding terminal, this enables automatic weld time recognition when used with a Plasson electrofusion machine.

Polyethylene: PE 100 RC.

Brass components: Lead Free DZR Brass.

Stainless Steel components: SS316.

Electrofusion fittings: Are batch controlled, record the batch number on the fitting label and contact Plasson Australia for a copy of the material datasheet / EN 10204 3.1 Inspection Certificate.

Installation:

Plasson Australia no longer publish generic how to perform electrofusion instructions. Plasson Australia recommend installation as per POP001 - Electrofusion Jointing of PE Pipe and Fittings for Pressure Applications as published by Plastics Industry Pipe Association of Australia (PIPA). This is free to download from <https://pipa.com.au>

Some products are unique to Plasson and require specialised tools or installation instructions, these products come with printed instructions included in the fitting bag.

Simona Spigot fittings

Polyethylene: PE 100 RC.

Simona spigot fittings are batch controlled, record the batch number on the fitting label and visit <https://certificates.plasson.com.au/> for a copy of the material datasheet / EN 10204 3.1 Inspection Certificate.

Backing Flanges

Galvanised flanges are hot dipped galvanised.

Stainless Steel are SS316L.

Galvanized ANSI flanges are A105 grade.

Plasson flanges are heat traced. Record the product code and heat code clearly marked on the flange and contact Plasson Australia for a copy of the heat certificate.

Compressed Air Applications

The following are the recommendations for Plasson fittings in compressed air systems with estimated design life of 50 years.

FITTING	SIZE	20°C	30°C	40°C
COMPRESSION FITTINGS	16-125mm (PN16 Water)	12.5	11.3	10.1
THREADED FITTINGS	1/2" to 2" (PN16 Water)	7.8	7	6.3
THREADED BUSHES	1/2" to 1"	7.8	7	6.3
	1.1/4" to 2"	4.8	4.4	3.9
THREADED CAPS	Up to 1.1/4"	5	4.4	3.9
TAPPING SADDLES – MECHANICAL	20 – 160mm (Includes Threaded Outlets)	7.8	7.0	6.3
ELECTROFUSION FITTINGS	20 – 400mm (PN16 Water)	12.5	11.3	10.1
	63 – 400mm Lightfit (PN10 Water)	7.8	7.0	6.3

Pressure values in BAR.

Legend

Bag	Units per bag
Carton	Units per carton
W	Weight in grams

METRIC COMPRESSION

16MM - 63MM

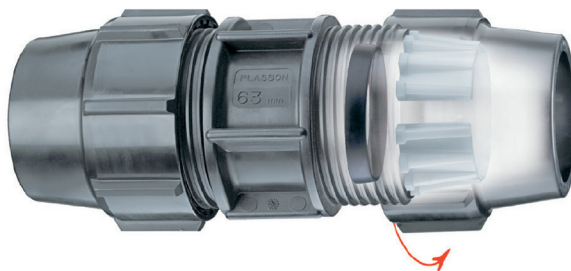


1



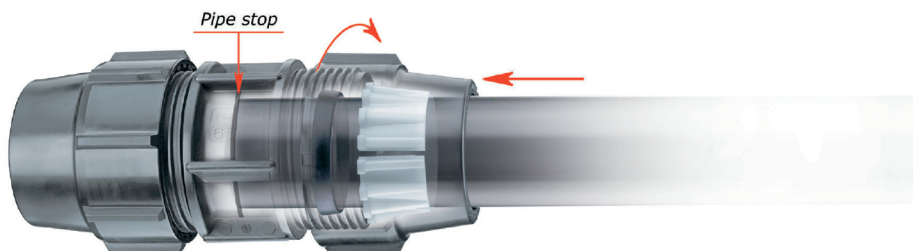
CUT PIPE SQUARE, CHAMFER END OF PIPE AND APPLY SILICON-BASED LUBRICANT TO MAKE INSTALL EASIER AND AVOID POTENTIAL DAMAGE TO THE CAPTIVE O-RINGS

2



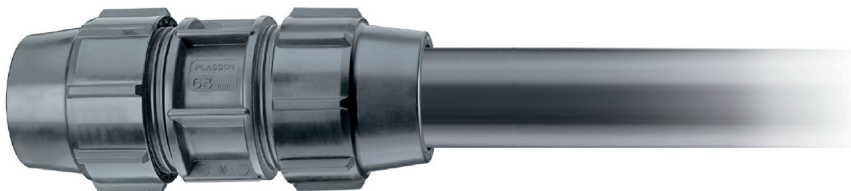
BACK THE NUTS OFF SEVERAL TURNS BUT DO NOT REMOVE THE NUT FROM THE FITTING BODY

3



INSERT PIPE INTO FITTING WITH A TWISTING MOTION PAST THE GRIP RING AND O-RING UNTIL IT HITS THE END STOP

4



FOR 16-32MM HAND-TIGHTEN AND FOR 40-63MM HAND-TIGHTEN AND USE WRENCHES TO DO UP A FURTHER HALF TURN

METRIC COMPRESSION

63MM MINE

75MM - 125MM

WATCH INSTALL
INSTRUCTIONS



1



REMOVE NUT AND PUT GRIP RING ASIDE

PLACE NUT, BUSH AND O-RING ON PIPE TWO DIAMETERS
BACK FROM END

LUBRICATE PIPE AND O-RING

2



PUSH THE PIPE FULLY ONTO FITTING BODY UP TO END STOP

PUSH THE O-RING AND BUSH UP AGAINST FITTING BODY

**NOTE: THE O-RING AND BUSH WILL NOT ENTER THE FITTING
BODY**

3



TIGHTEN NUT TO PUSH BUSH AND O-RING INTO FITTING
UNTIL BUSH IS FLUSH WITH FITTING MOUTH

NOTE: THE GRIP RING IS STILL NOT INSTALLED AT THIS POINT

4



UNDO NUT AND SLIDE BACK ALONG PIPE

INSTALL GRIP RING TO LUGS ARE TOUCHING BUSH

**NOTE: IF REINSTALLING FITTINGS DESTROY OLD GRIP RINGS
AND REPLACE WITH NEW ONES TO ENSURE FIRM BITE**

5



FIRMLY HAND-TIGHTEN PLUS A 1/2 TURN WITH WRENCHES
MAXIMUM HANDLE LENGTH: 45CM

NOTE: OVER-TIGHTENING NUTS CAN CAUSE BLOWOUTS

RURAL COMPRESSION

1/2" - 2"

WATCH INSTALL
INSTRUCTIONS



1



PLACE NUTS AND GRIP RINGS ON PIPE ENDS

2



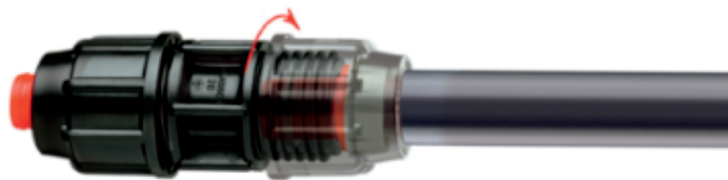
PUSH RED BARBED INSERT INTO PIPE & FITTING

3



SLIDE NUTS & GRIP RINGS UP TO FITTING BODY

4



DO BOTH NUTS UP BY HAND UNTIL FIRMLY TIGHT

NOTE: USING WRENCHES MAY LEAD TO OVER-TIGHTENING WHICH CAN RESULT IN BLOW OUTS

Reference Guides and Charts

Standard Dimension Ratios (SDR's) For Series 1 Pe Pipes And Equivalent Pressure Rating In Bar

Compound	PN3.2	PN4	PN6.3	PN8	PN10	PN12.5	PN16	PN20	PN25
PE80	41	33	21	17	13.6	11	9	7.4	-
PE100	-	41	26	21	17	13.6	11	9	7.4

Standard Pipe Colour Chart

Colour	Common Use
Blue	Water
Orange	Electrical Conduit
Yellow	Gas - PE100
Red	Fire Service Water
Green	Imperial Rural / Raw Water
Purple	Recycled / Reclaimed Water
Cream	Pressure Sewer

Maximum Allowable Operating Pressure – PE100 (Ref PIPA POP013)

Temp (°C)	Min Life (YR)	Design Factor	PN4 / SDR41	PN6.3 / SDR26	PN8 / SDR21	PN10 / SDR17	PN12.5 / SDR13.6	PN16 / SDR11	PN20 / SDR9	PN25 / SDR7.4
20	100	1.0	40	64	80	100	127	160	200	250
25	100	1.1	36	58	73	91	115	145	182	227
30	100	1.1	36	58	73	91	115	145	182	227
35	50	1.2	33	53	67	83	106	133	167	208
40	50	1.2	33	53	67	83	106	133	167	208
45	35	1.3	31	49	62	77	99	123	154	192
50	22	1.4	29	46	57	71	91	114	143	179
55	15	1.4	29	46	57	71	91	114	143	179
60	7	1.5	27	43	53	67	85	107	133	167
80	1	2.0	20	32	40	50	63	80	100	125

Information correct when printed. To ensure you are using the most up to date data for the Industry Guidelines POP013 visit the PIPA Website <https://pipa.com.au/technical/pop-guidelines>

Rural Poly Pipe (Class B) | Imperial Type Class C&D (ASK119)

Size Nominal	Rural (B)		Class C 900 kPa (130 PSI) No Longer Manufactured		Class D 1200 kPa (173 PSI) No Longer Manufactured	
	BORE MM	WALL THICKNESS MM	BORE MM	WALL THICKNESS MM	BORE MM	WALL THICKNESS MM
1/2"	12.7	1.7	12.7	1.7	12.7	1.8
3/4"	19.0	1.7	19.0	1.9	19.0	2.7
1"	25.4	1.7	25.4	2.6	25.4	3.5
1 1/4"	31.6	2.1	31.6	3.3	31.6	4.4
1 1/2"	38.0	2.5	38.0	3.9	38.0	5.3
2"	50.8	3.4	50.8	5.2	50.8	7.1

Dimensions are mean sizes only.



 **PLASSON**

TERMS AND CONDITIONS



Terms and Conditions

1. DEFINITIONS & INTERPRETATION

"Agreement" means the agreement for supply of Goods between PLASSON and the Customer of which these "Conditions of Sale" form part.

"Business Day" means a day other than a Saturday, Sunday, public holiday or bank holiday in Sydney, New South Wales.

"Charges" includes all monies payable by the Customer to PLASSON in relation to the supply of Goods. "Confirmation of Order" means a written document which sets out a description of the Goods, the Charges and other necessary terms and which may include details of the Customer's offer to purchase the Goods.

"Customer" means the entity which orders Goods from PLASSON or to which Goods are delivered by PLASSON and includes the Customer's agents and permitted assigns.

"Ex Works" has the same meaning as is ascribed to that term in Incoterms 1990.

"Goods" means the goods purchased or ordered by the Customer from Plasson and includes parts and supplies which may subsequently be supplied under any warranty given in relation the Goods.

"GST" means goods and services tax imposed in Australia by the GST law.

"PLASSON" means PLASSON Australia Pty Ltd ACN 053 788 891, its agents and assigns.

"Permitted Security Interest" means any security interest which PLASSON consents to or otherwise agrees in writing with the Customer will be a Permitted Security Interest for the purposes of these terms and conditions.

"Persons" includes corporations, partnerships and unincorporated associations.

"PPSA" means the Personal Property Securities Act 2009 (Cth) as amended. "PPSR" means the Personal Property Security Register. "Purchase Money Security Interest" has the meaning prescribed to it in the PPSA. "Security Interest" has the meaning prescribed to it in the PPSA and includes any security interest under the PPS Act.

Words importing the singular number shall include the plural and vice versa.

2. CONDITIONS

These Conditions of Sale apply to all agreements for the supply of Goods by PLASSON and if revised by PLASSON and the Customer is notified of the revised Conditions of Sale the revised Conditions of Sale shall be incorporated into every subsequent agreement for purchase of Goods by that Customer from PLASSON.

3. QUOTATIONS AND ENTRY INTO AGREEMENT

- 3.1. No brochure, catalogue, price list, quotation or other communication published or forwarded by PLASSON to the Customer, whether in writing or not, shall constitute anything other than an invitation by PLASSON to the Customer to do business and shall not represent that the Goods or Charges referred to in them shall be available to the Customer. Any purchase order placed by the Customer with PLASSON constitutes only an offer to purchase Goods. Notwithstanding any prior communication between PLASSON and the Customer, there shall be no obligation by PLASSON to accept an offer to purchase Goods made by a Customer. The Customer's offer is only accepted by PLASSON issuing a Confirmation of Order to the Customer.
- 3.2. In the event of any inconsistency between the Customer's purchase order or other request and PLASSON's Confirmation of Order (which includes these Conditions), the terms of the Confirmation of Order shall prevail.
- 3.3. Unless otherwise stated in the Confirmation of Order prices quoted are exclusive of GST and the Customer is required to pay any GST payable by PLASSON in respect to the supply of Goods at the same time as the price is required to be paid by the Customer to PLASSON.

4. FUNCTIONALITY AND PERFORMANCE

- 4.1. All information, specifications or other data provided by PLASSON in relation to the Goods represent approximations only and small deviations or slight variations from them which do not substantially diminish the functionality or performance of the Goods will not entitle the Customer to reject the Goods.
- 4.2. Information provided by PLASSON in relation to the performance of Goods represents only a guide as to the performance of the Goods under optimum operating conditions.
- 4.3. Without limiting the operation of Clause 4.2, PLASSON may at its sole discretion provide the Customer with training manuals and other materials in relation to the Goods. PLASSON gives no representation or warranty as to the accuracy of such materials or the use of them by the Customer.

5. CHARGES

- 5.1. The Customer shall pay to PLASSON all Charges within thirty (30) days from the date of the Invoice without reduction or deferment on account of any claim, counterclaim or setoff.
- 5.2. The Customer acknowledges that the cost of transportation and freight for the Goods is not included in the Charges and the Customer shall pay a reasonable additional fee for such costs. All other charges such as duty, insurance and taxes and other related expenses shall unless otherwise agreed in writing) be paid by the Customer.
- 5.3. Should the Customer fail to pay any amount when due to PLASSON, the Customer shall be liable to pay to PLASSON without demand interest thereon at the rate of 1% above the rate charged on commercial overdraft accounts in excess of \$100,000.00 applicable from time to time and charged by PLASSON's bankers as nominated by PLASSON at the relevant time. Interest payable hereunder shall be compounded monthly and calculated from the due date for payment to the date upon which payment is actually made.
- 5.4. Notwithstanding anything else appearing in the Agreement, all Charges shall immediately become due if the Customer

shall fail to make any payment when due or shall become subject to the bankruptcy laws or enter into any composition with its creditors or enter into any liquidation or suffer a receiver or receiver and manager to be appointed for all or part of its assets.

- 5.5. Where payment of the Charges or part of the Charges is due prior to delivery of the Goods and where the Customer fails to make such payment, PLASSON may withhold delivery and give the customer a notice requiring payment to be made within seven days. Should the Customer fail to make the payment which is due within the time required by the notice, PLASSON may terminate the Agreement.

6. PROPERTY OF GOODS PURCHASED

- 6.1. No legal or equitable title to the Goods shall pass to the Customer until payment in full has been made by the Customer not only of all Charges for all Goods the subject of the Agreement (unless waived in writing by PLASSON) but also until payment has been made of all Charges for all goods previously supplied by PLASSON to the Customer.
- 6.2. Until the legal and equitable title to the Goods passes to the Customer, the Customer shall:
- (a) Hold the Goods as bailee of PLASSON returnable at will and without prior demand by PLASSON;
 - (b) Store the Goods in such a manner as enables them to be readily identified and distinguished from all other goods held by the Customer and, where such other goods include goods previously supplied by PLASSON to the Customer and in respect of which title has passed to the Customer, then the Customer shall attach to the Goods in respect of which title has not passed a notice indication that the Goods are held as bailee for PLASSON;
 - (c) Upon demand by PLASSON immediately deliver up the goods to PLASSON; and
 - (d) Authorise and the Customer does here by authorise PLASSON to enter upon the premises upon which the Goods are stored for the purpose of taking possession of them.

7. SERVICE

Some Goods may require recalibration annually or at other periods nominated by PLASSON. The Customer may at its own cost transport and deliver the Goods to and from PLASSON's nominated premises from time to time. On receipt of the Goods, PLASSON agrees to recalibrate the Goods (if necessary) provided that the Customer pays PLASSON its then current service charges in respect of such recalibration.

8. INTELLECTUAL PROPERTY LICENCE

PLASSON hereby grants to the Customer a nonexclusive licence to use any software or firmware used in connection with the Goods and supplied by PLASSON. The licence shall be subject to any terms and conditions imposed by PLASSON or the owner of copyright in the software or firmware.

9. FINANCIER

- 9.1. If PLASSON sells the Goods to a third-party financier (the "Financier") at the request of the Customer, then PLASSON agrees to grant the licence referred to in Clause 8 to the Customer.
- 9.2. The Customer represents and warrants to PLASSON that if PLASSON sells the Goods to a Financier at the request of the Customer, the Customer shall continue to be bound by all of the terms of the Agreement as if the Customer continued to be the legal and equitable owner of the Goods.

10. DELIVERY AND RISK

- 10.1. The Goods are sold on an Ex Works basis: delivery of the Goods will occur when the Goods are placed at the disposal of the Customer at PLASSON's premises and risk of loss or damage to the Goods then passes to the Customer. In these circumstances, PLASSON may agree to arrange carriage of the Goods for the Customer but will do so as the agent for the Customer and delivery will occur and risk will pass when the Goods are placed at the disposal of the carrier. The Customer shall pay to PLASSON its Charges for carriage incurred upon the Customer's behalf.
- 10.2. Delivery dates represent only an estimation of the date of delivery of the Goods and are not binding on PLASSON. Nothing in the Confirmation of Order shall be construed as making time of the essence in the Agreement unless it is expressly stated to be so.
- 10.3. PLASSON reserves the right to deliver the Goods by instalments and to invoice the Customer for each instalment of Goods delivered where, in the opinion of PLASSON, it is reasonable to do so.
- 10.4. Failure by the Customer to pay for any instalments, or any other amounts when due, shall entitle PLASSON to withhold or delay delivery of any remaining Goods.
- 10.5. If PLASSON determines that it is or may be unable to deliver the Goods within a reasonable time or at all, PLASSON may at its sole discretion terminate the Agreement. In the event of termination the Customer shall have no claim against PLASSON for any damage, loss or expense whatsoever.
- 10.6. If PLASSON is unable to effect delivery, PLASSON may store the Goods and charge the Customer for all costs and expenses associated with such storage and delayed delivery.
- 10.7. Subject to any express warranty provided in writing by PLASSON to the Customer, failure by the Customer to notify PLASSON within seven days of delivery that the Goods are not in accordance with their description in the Confirmation of Order shall constitute an unqualified acceptance of the Goods and a waiver by the Customer of all claims with respect to the Goods.

If at any point the Customer not completely satisfied with Goods, it is necessary for the Customer to bring this to PLASSON'S attention immediately by contacting PLASSON using the following details:

Attn.: Nelli Sullivan

Plasson Australia Pty Ltd ACN 053 788 891
Suite 2.03 Green Central, 61 Dunning Avenue, Rosebery NSW 2018
NSullivan@plasson.com.au

- 10.8.** In arranging carriage, storage, insurance and forwarding of the Goods PLASSON shall at all times be acting as the Customer's agent and all Charges in relation to same shall be reimbursed by the Customer. This clause shall also apply to any partial delivery of the Goods.
- 10.9.** Any Goods returned to PLASSON by the Customer other than Goods incorrectly supplied, or Goods with major defects will only be accepted by PLASSON on condition that:
- (i) a re-stocking fee of 25% of the Charges applicable to the Goods plus GST and return freight charges are paid by the Customer to PLASSON; and
 - (ii) delivery by the Customer of a Return Authority from PLASSON; and
 - (iii) the Goods are of merchantable quality.

11. IMPLIED TERMS AND LIMITATION OF LIABILITY

- 11.1.** Where conditions, warranties or other rights for the benefit of the Customer are implied or given in respect of the Agreement by Competition and Consumer Act, 2010 and / or the Sales of Goods Act 1896 (as amended) or other laws and it is not lawful or possible to exclude the same, then such conditions, warranties or other rights shall (but only to the extent required by law) apply to the Agreement.
- 11.2.** PLASSON'S Goods come with guarantees that cannot be excluded under the Australian Consumer Law. The Customer is entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. The Customer is also entitled to have the Goods repaired or replaced if the Goods fail to be of acceptable quality and the failure does not amount to a major failure.
- 11.3.** To the extent permitted by law and the Goods are not of a kind ordinarily acquired for household use or consumption, liability of PLASSON for breach of this contract by PLASSON or negligence of PLASSON or for breach of any conditions or warranty implied by the Competition and Consumer Act, 2010 and / or the Sales of Goods Act 1896 (as amended) shall be limited to one of the following at PLASSON's option:
- (a) the replacement of the Goods or the supply of equivalent Goods; or
 - (b) the repair of the Goods; or
 - (c) the payment of the costs of replacing the Goods or of acquiring equivalent Goods;
 - (d) the payment of the cost of having the Goods repaired; and in the case of services supplied to one of the following (as PLASSON may determine): (1) the supplying of the services again, or (2) the payment of the costs of having the services supplied again.
- 11.4.** Save as expressly provided in any written warranty provided in writing by PLASSON to the Customer and in and to the extent permitted by law and notwithstanding any implication arising from any other clauses in the Agreement, for Goods that are not of a kind ordinarily acquired for household use or consumption PLASSON shall not be liable to the Customer or any person claiming under it in contract or in tort for, or in respect of, any indirect or consequential loss, damage, expense or injury suffered by the Customer or any other person whatsoever, arising out of, in connection with or relating to the performance, non-performance or any breach of the Agreement (including, by way of illustration and not in limitation, liability due to the negligence or wilful default of PLASSON) or any matter relating to the Agreement or any error (whether negligent or not) in information supplied to the Customer before or after the date of the Agreement in connection with its subject matter. "Consequential loss" shall include but not be limited to loss of profit, use or good will (or similar financial loss), payment made or due to any other person and any loss or damage caused by delay in the performance of any obligation, together with any expenses incurred by the Customer in connection therewith, arising therefrom or incurred in mitigation or attempted mitigation of such loss or damage.
- 11.5.** Clause 11.4 shall apply to all express warranties provided in writing by PLASSON except to the extent that those warranties specifically provide otherwise.
- 11.6.** Where any law implies into the Agreement a condition that the Goods are of merchantable quality, and the Goods are purchased by the Customer for particular purpose, the Goods will not be considered by the Customer as being fit for any other purpose, whether or not that other purpose is one for which goods of that kind are commonly bought.

12. DEPOSIT

- 12.1.** Where PLASSON agrees to supply Goods upon the condition that a deposit of part or all of the charges is paid prior to delivery ("the Deposit"), in the event that the Customer terminates the Agreement or fails to take delivery of the Goods or is otherwise in breach of its obligations to PLASSON so that PLASSON is entitled to terminate the Agreement, the Customer shall forfeit ten per cent of the Deposit to PLASSON for PLASSON's benefit and PLASSON shall refund the balance to the Customer.
- 12.2.** The forfeiture of the Deposit shall not be deemed any limitation, in damages or otherwise including damages for loss of profits, of the liability of the Customer to PLASSON.

13. TERMINATION

In addition to the rights of termination provided in the above conditions, PLASSON may terminate the Agreement upon the occurrence of any of the following events:

- (a) Failure by the Customer to perform any obligation of this Agreement where such failure is not rectified within 30 days of notice from PLASSON requesting rectification.
- (b) The Customer becomes bankrupt or an order is made or a resolution is passed for the winding up of the Customer or a ground arises on which a court may order its winding up or upon which a meeting may rely for the purposes of placing the Customer under official management or an inspector is appointed to investigate its affairs or it proposes to or enters into any arrangement, scheme, reconstruction or composition with creditors.
- (c) A receiver of receiver and manager of the Customer's assets, income or business or any part thereof is appointed, or a mortgagee goes into possession thereof and such appointment is not terminated, or such possession does not cease within fourteen days.
- (d) The Customer shall fail to pay its debts as they shall fall due or cease or threaten to cease to carry on business or sell, assign, transfer the whole or any part of its undertaking or assets otherwise than in the ordinary course of business.

- (e) The Customer purports to assign its rights under the Agreement.
- (f) Any event occurs outside the reasonable control of PLASSON which in PLASSON's estimate makes it impracticable or impossible for it to fulfil its obligation under the Agreement.

14. FORCE MAJEURE

- 14.1. PLASSON will not be liable for any loss or damage suffered by the Customer due to any delay or any breach or default under the Agreement in circumstances where such delay, breach or default results from causes beyond PLASSON's reasonable control including but not limited to any breach or default under the Agreement by the Customer, compliance with any laws, regulations, orders, acts, instructions or priority requests of governments, acts of God, fires, floods, weather, strikes, lockouts, factory shutdown or alterations, embargoes, wars, riots, delay or shortage in transportation or inability to obtain labour, manufacturing facilities, electricity, oil or other materials from PLASSON's or the Manufacturer's usual sources.
- 14.2. Any delay resulting from such cause shall immediately extend the delivery date by the period of delay in which event the Customer shall take, if necessary, steps to secure payment for the Goods.

15. MISCELLANEOUS

- 15.1 Any indulgence, latitude or extension of time which PLASSON may show towards the Customer in relation to any of the provisions of the Agreement or any matter or thing relating thereto or arising therefrom shall not in any way prejudice or interfere with PLASSON's rights under the Agreement and shall not be claimed to constitute a waiver thereof.
- 15.2 The Customer acknowledges that no oral terms or representations form part of the Agreement unless they have been reduced to writing and signed by PLASSON prior to entering into the Agreement.
- 15.3 Any notice to be given to a party shall be in writing and shall be sent by post, email or facsimile to the address of that party as shown in the Confirmation of Order or as subsequently notified by that party to the party giving the notice and shall be deemed to have been given:
 - (a) in the case of post, 5 Business Days after the date of posting (or 10 Business Days in the event that the Customer is located outside of Australia;
 - (b) in case of email, on the day and at the time the email is sent unless a delivery failure notification is received by the sender within 4 hours of sending the email; and
 - (c) in the case of hand delivery, when delivered.
- 15.4 The Agreement shall be governed by the laws of New South Wales and the parties agree to submit to the jurisdiction of the Courts for that State.
- 15.5 In the event of PLASSON seeking to recover any amount due from the Customer or to enforce any of its other rights under the Agreement, the Customer undertakes to pay to PLASSON any costs incurred by PLASSON in so doing, including any legal costs incurred on the solicitor and own client basis.

16. SECURITY INTEREST

- (a) The Customer hereby acknowledges that these terms and conditions of sale constitute a security agreement which creates a Security Interest in favour of PLASSON in all present and after acquired property of the Customer including Goods supplied by PLASSON to the Customer and all after acquired Goods supplied to the Customer by PLASSON (or for the Customer's account) to secure the payment from time to time for Goods, including future advances.
- (b) The Customer agrees to grant to PLASSON:
 - (i) a Purchase Money Security Interest in relation to any Goods supplied by PLASSON to the Customer; and
 - (ii) a Security Interest in all of its present and after acquired property in which Goods supplied or financed by PLASSON have been attached or incorporated, including any Commingled Goods and in any proceeds of sale of Goods.

17. GENERAL COVENANTS

- (a) Until such time as payment in full has been received by PLASSON from the Customer in respect to an Order, the Customer covenants to PLASSON not to create, cause or permit to exist any other Security Interest over any Goods the subject of the applicable Order, other than a Permitted Security Interest and covenants that it shall comply with the terms of each Permitted Security Interest binding on it in respect of the relevant Goods from time to time and shall ensure that:
 - (i) there is no increase in the amount secured under a Permitted Security Interest (excluding any part of a Permitted Security Interest which is a purchase money security interest); and (ii) there is no variation to a Permitted Security Interest that increases the collateral the subject of the Permitted Security Interest, other than in the case of a purchase money security interest, without obtaining the prior written consent of PLASSON.
- (b) The Customer covenants to PLASSON that it shall sign anything and do anything PLASSON requires to further or more effectively secure PLASSON's rights over the applicable Goods or under these terms and conditions. This includes anything PLASSON requires in order for it to: (i) register and maintain (including renew before expiry) one or more financing statements in relation to any Security Interest in the relevant Goods created by these terms and conditions and/or any Order;
 - (ii) remove any financing statement which is registered against the Customer or in relation to a Security Interest which is not a Permitted Security Interest; and (iii) obtain possession or control of any Goods for the purposes of perfecting any Security Interest in that property by possession or control for the purposes of the PPSA.
- (c) The Customer waives its rights to receive a verification statement in respect of any financing statement or financing change statement registered by or on behalf of PLASSON under the PPSA to the extent permitted by the PPSA and agrees to that as between PLASSON and the Customer will have no rights under (or by reference to) sections 95, 96, 117, 118, 120, 121(4), 123, 125, 126, 128, 129, 130, 132(3)(d), 132(4), 134(1), 135, 142 and 143 of the PPSA.



PLASSON AUSTRALIA

plasson.com.au

1300 752 776

sales@plasson.com.au

ABN 40 053 788 891