



Gradian Hydrotech



Water Engineering Solutions

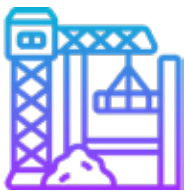
Product
Catalogue
2022

GRADIAN HYDROTECH

No matter what industry you're in or what challenges you face, we have the technical knowledge, experience and commitment to help you save money and get better results for your water projects

Technology is constantly changing, so using a company that's been involved in a whole range of applications for over 40 years – from domestic plumbing to large-scale irrigation, mine dewatering, water treatment, landscaping and construction – is the best way to make sure your systems are as advanced and efficient as possible.

INDUSTRY



Construction



Mining



Agriculture



Manufacturing



Council

OUR CERTIFICATIONS

Our experienced staff are backed by industry recognised certifications, delivering peace of mind and certainty for all project work.

- Australian Government Federal Building and Construction OHS Accreditation Scheme



ISO type 5



SUPPLIERS





PIPE AND RISER SYSTEMS

A pipe and riser system can replace existing farm channels with a piped network, where risers replace existing bay outlets or possibly extend an existing gravity network.

The pipe and riser network, in most cases, can share pumping activities and costs with a reuse pump. The system can be manually operated, semi-automated or fully automated with computer control and monitoring.

Advantages of upgrading an open channel system to pipe and riser are:

- Elimination of water losses and seepage from farm channels
- Increased production resulting from precise control and accuracy of watering
- Enables almost total coverage of arable land
- Pipeline flexibility allows efficient coverage of any farm shape
- Faster and predictable bay watering operation
- Labour costs greatly reduced due to reduced maintenance and simplicity of watering





Gradian Hydrotech designs, fabricates and installs complete floating pump and pontoon solutions for any water off-take requirements.

Our floating pontoon pumps are fabricated to the highest quality and eliminate the flooding and maintenance problems of traditional off-take structures.

Our floating pontoon pumps are designed for each individual application and site with no off-take job to big or too small.

BUTT WELD FABRICATED PONTOONS

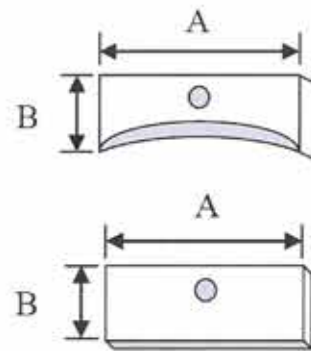
Nom. Size/O.D.	LOAD (KG/m) @ 50%	LITRES (CAP/M)
315mm	31.4	70.7
355mm	39.9	89.7
400mm	50.6	114.0
450mm	64.1	144.3
500mm	79.0	178.0
560mm	99.3	223.5
630mm	125.7	282.7
710mm	160.3	359.2



Other sizes available on request.

CLEATS

FABRICATED CLEATS FOR ADDITION TO PONTOON – WELDED			
TO SUIT PIPE DIAMETER	THICKNESS	A (mm)	B (mm)
315mm – 400mm	20mm	200	100
450mm – 710mm	20mm <td>350</td> <td>100</td>	350	100



Other sizes available on request.

Galvanised steel and stainless steel frames, decking or grating loops and tie downs - also available





- Polyethylene Pressure Pipe
- Compression Fittings
- Polyethylene Butt Weld Fittings
- Polyethylene Electrofusion Fittings
- Custom-made Fittings

PE100 pressure fittings produce a solid joint with the pipe giving end users confidence in the longevity of the piping system because joints will not decay over time. Gradian Hydrotech can supply butt weld fittings from 25mm to 1200mm in diameter.

Polyethylene pipe for pressure applications is available in diameters from 16mm to 2000mm with a range of identification colours co-extruded as stripes to allow the

service application to be readily identified.

Polyethylene pipe is an extremely flexible material that features high impact strength, chemical and corrosion resistance and provides many installation advantages over other materials.

Available in straight lengths and coils, polyethylene pipe is complemented by electrofusion, compression and butt welded fittings.





ELECTROFUSION FITTINGS

Polyethylene electrofusion system for pressure and waste applications

Electrofusion fittings use heat welding provided by an electrical current. The material melts progressively and causes the pipe surface to melt and fuse with the fitting. Once cooled, a perfect cohesion of the fitting and pipe joint is achieved. A major advantage of electrofusion fittings is the ability to carry a full axial load without the need for external clamping or anchoring.

Polyethylene piping systems using electrofusion fittings are the ideal solution for general water supply, sewerage, wastewater, gas distribution, slurry lines and submerged pipelines in industrial, chemical or mining applications.

Compression fittings are an easy connection system for water supply and compressed air applications. Tapping saddles are also available to suit metric polyethylene pipe. Electrofusion is where a fitting with built-in metal winding is heated by an electric current. The material melts progressively and causes the pipe surface to melt and fuse with the fitting. After cooling, a perfect cohesion of the fitting and pipe joint is obtained.

Gradian Hydrotech supply a wide range of electrofusion fittings which are designed with automatic weld time recognition, one-weld voltage and do not require temperature compensation across their operating range. Once the welding machine is operating the weld is performed automatically. Welding terminals include identification devices to monitor weld time and all aspects of the weld are controlled over all climatic conditions and voltages.

Gradian Hydrotech can supply the right tools for successful electrofusion installation including control boxes, scrapers, clamps and cleaning products. A full range of polyethylene pipe to suit electrofusion fittings is also available.



POLYETHYLENE PIPE (PE100)

POLY PIPE SDR41 PN4 (M)

CODE	PIPE SIZE
100616190	160
100616191	200
100616192	225
100616193	250
100616194	280
100616195	315
100616196	355
100616197	400
100616198	450
100616199	500
100616200	560
100616201	630
100616202	710
100616203	800
100616189	1000

POLY PIPE SDR26 PN6.3 (M)

CODE	PIPE SIZE
100616172	110
100616173	140
100616174	160
100616175	200
100616176	225
100616177	250
100616178	280
100616179	315
100616180	355
100616181	400
100616182	450
100616183	500
100616184	560
100616185	630
100616186	710
100616187	800
100616188	900
100616171	1000

POLY PIPE SDR21 PN8 (M)

CODE	PIPE SIZE
100616153	125
100616154	140
100616155	160
100616156	180
100616157	200
100616158	225
100616159	250
100616160	280
100616161	315
100616162	355
100616163	400
100616164	450
100616165	500
100616166	560
100616167	630
100616168	710
100616169	800
100616170	900
100616152	1000

POLY PIPE SDR17 PN10 (M)

CODE	PIPE SIZE
100616151	90
100616133	110
100616134	125
100616135	140
100616136	160
100616137	180
100616138	200
100616139	225
100616140	250
100616141	280
100616142	315
100616143	355
100616144	400
100616145	450
100616146	500
100616147	560
100616148	630
100616149	710
100616150	800

POLY PIPE SDR13.6 PN12.5 (M)

CODE	PIPE SIZE
100616113	110
100616114	125
100616115	140
100616116	160
100616117	180
100616118	200
100616119	225
100616120	250
100616121	280
100616122	315
100616123	355
100616124	400
100616125	450
100616126	500
100616127	560
100616128	630
100616129	710
100616130	800
100616131	900
100616112	1000

POLY PIPE SDR11 PN16 (M)

CODE	PIPE SIZE
TBA	50
TBA	63
TBA	75
100616111	90
100616092	110
100616093	125
100616094	140
100616095	160
100616096	180
100616097	200
100616098	225
100616099	250
100616100	280
100616101	315
100616102	355
100616103	400
100616104	450
100616105	500
100616106	560
100616107	630
100616108	710
100616109	800
100616110	900

GASKETS & BACKING RINGS

TABLE D GASKET (3mm INSERTION RUBBER)

CODE	SIZE	PCD	BOLT HOLES NO. X DIA		GASKET OD	GASKET ID
FLGRAS2129D50	50	98	4	14	135	43
FLGRAS2129D63	63	114	4	18	150	55
FLGRAS2129D75	75	127	4	18	165	63
FLGRAS2129D90	90	146	4	18	185	78
FLGRAS2129D110	110	178	4	18	215	96
FLGRAS2129D125	125	210	8	18	255	110
FLGRAS2129D160	160	235	8	18	280	140
FLGRAS2129D180	180	235	8	18	280	158
FLGRAS2129D200	200	292	8	22	335	175
FLGRAS2129D225	225	292	8	22	335	198
FLGRAS2129D250	250	356	8	22	405	219
FLGRAS2129D280	280	356	8	22	405	246
FLGRAS2129D315	315	406	12	26	455	278
FLGRAS2129D355	355	470	12	26	525	311
FLGRAS2129D375	375	495	12	26	550	351
FLGRAS2129D400	400	521	12	26	580	351
FLGRAS2129D450	450	584	12	26	640	395
FLGRAS2129D500	500	641	16	26	705	440
FLGRAS2129D560	560	699	16	30	760	494
FLGRAS2129D630	630	756	16	30	825	554
FLGRAS2129D710	710	845	20	30	910	628
FLGRAS2129D800	800	984	20	36	1060	706
FLGRAS2129D900	900	1092	24	36	1175	796
FLGRAS2129D1000	1000	1175	24	36	1255	884
FLGRAS2129D1200	1200	1410	32	36	1490	1060
FLGRAS2129D1400	1400	1615	36	36	1700	1236
FLGRAS2129D1600	1600	1825	40	39	1910	1412
FLGRAS2129D1800	1800	2019	44	42	2110	1590
FLGRAS2129D2000	2000	2250	44	42	2345	1766

TABLE E GASKET (3mm INSERTION RUBBER)

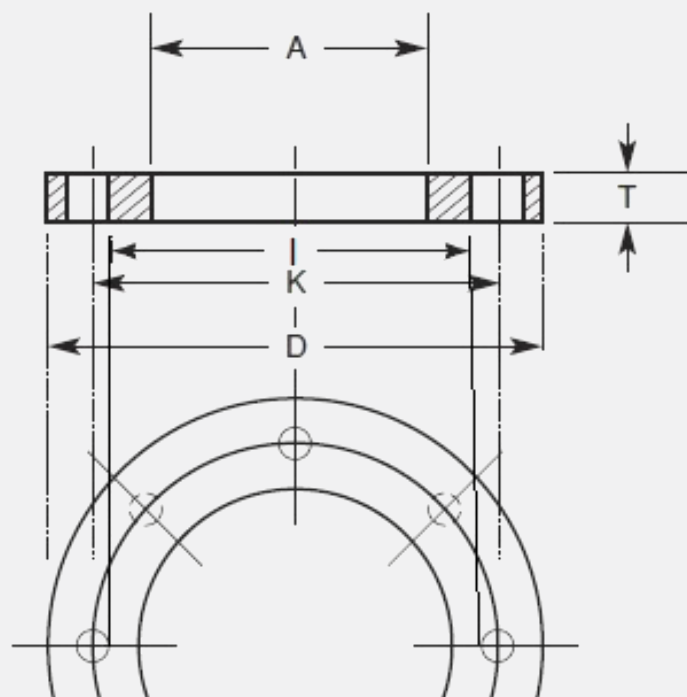
CODE	SIZE	PCD	BOLT HOLES NO. X DIA		GASKET OD	GASKET ID
FLGRAS2129E110	110	178	8	18	215	96
FLGRAS2129E250	250	356	12	22	405	219
FLGRAS2129E280	280	356	12	22	405	246
FLGRAS2129E450	450	584	16	26	640	395

TABLE H GASKET (CHINA) (3mm INSERTION RUBBER)

CODE	SIZE	PCD	BOLT HOLES NO. X DIA		GASKET OD	GASKET ID
FLGRCPUMP160	160	210	6	16	256	140
FLGRCPUMP180	180	210	6	16	256	158
FLGRCPUMP200	200	270	6	18	310	175
FLGRCPUMP225	225	270	6	18	310	198
FLGRCPUMP250	250	320	8	18	364	219
FLGRCPUMP280	280	320	8	18	364	246
FLGRCPUMP315	315	380	8	18	440	278

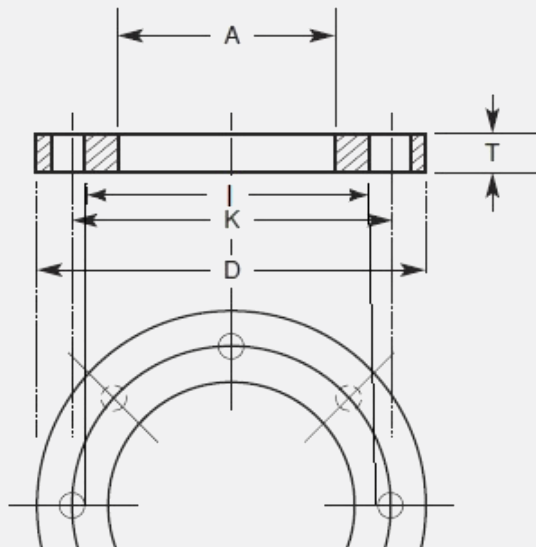
AS4087 T/D GALVANISED BACKING RINGS

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645195	63	50	114	150	78	11	18	4	M16	1.03
100645197	75	65	127	165	92	11	18	4	M16	1.18
100645200	90	80	146	185	108	11	18	4	M16	1.44
100645177	110	100	178	215	128	13	18	4	M16	2.29
100645179	125	100	210	255	140	13	18	8	M16	3.43
100645180	140	125	210	255	158	13	18	8	M16	3.00
100645181	160	150	235	280	178	13	18	8	M16	3.54
100645182	180	150	235	280	188	13	18	8	M16	3.24
100645183	200	200	292	335	235	19	18	8	M16	6.37
100645184	225	200	292	335	238	19	18	8	M16	6.21
100645185	250	250	356	405	288	19	22	8	M20	9.04
100645186	280	250	356	405	294	19	22	8	M20	8.63
100645187	315	300	406	455	338	23	22	12	M20	12.33
100645188	355	350	470	525	376	30	26	12	M24	23.33
100645189	375	375	495	550	406	30	26	12	M24	23.96
100645190	400	400	521	580	430	30	26	12	M24	26.52
100645191	450	450	584	640	480	30	26	12	M24	31.64
100645192	500	500	641	705	533	38	26	16	M24	47.35
100645193	560	560	699	760	618	44	30	16	M27	49.17
100645194	630	600	756	825	645	48	30	16	M27	74.04
100645196	710	700	845	910	740	56	30	20	M27	90.63
100645198	800	800	984	1060	843	56	36	20	M33	133.62
100645199	900	900	1092	1175	947	66	36	24	M33	184.20
100645176	1000	1000	1175	1255	1050	66	36	24	M33	179.61
100645178	1200	1200	1410	1490	1240	76	36	32	M33	300.35



AS2129 T/D GALVANISED BACKING RINGS

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645126	20	15	67	95	32	6	14	4	M12	0.27
100645129	25	20	73	100	37	6	14	4	M12	0.29
100645132	32	25	83	115	44	6	14	4	M12	0.39
100645136	40	32	87	120	52	6	14	4	M12	0.40
100645139	50	40	98	135	62	8	14	4	M12	0.67
100645142	63	50	114	150	78	8	18	4	M16	0.75
100645144	75	65	127	165	92	8	18	4	M16	0.86
100645147	90	80	146	185	108	10	18	4	M16	1.31
100645119	110	100	178	215	128	10	18	4	M16	1.76
100645120	125	100	178	215	135	13	18	8	M16	2.04
100645121	125	125	210	255	140	13	18	8	M16	3.43
100645122	140	125	210	255	158	13	18	8	M16	3.00
100645123	160	150	235	280	178	13	18	8	M16	3.54
100645124	180	150	235	280	188	13	18	8	M16	3.24
100645125	200	200	292	335	235	13	18	8	M16	4.36
100645127	225	200	292	335	238	13	18	8	M16	4.25
100645128	250	250	356	405	288	16	22	8	M20	7.62
100645130	280	250	356	405	294	16	22	8	M20	7.27
100645131	315	300	406	455	338	19	22	12	M20	10.19
100645133	355	350	470	525	376	22	26	12	M24	17.11
100645134	375	375	495	550	406	22	26	12	M24	17.11
100645135	400	400	521	580	430	22	26	12	M24	19.45
100645137	450	450	584	640	480	25	26	12	M24	26.37
100645138	500	500	641	705	533	29	26	16	M24	36.14
100645140	560	560	699	760	618	32	30	16	M27	35.76
100645141	630	600	756	825	645	32	33	16	M30	49.36
100645143	710	700	845	910	740	35	33	20	M30	56.64
100645145	800	800	984	1060	843	41	36	20	M33	97.83
100645146	900	900	1092	1175	947	48	36	24	M33	133.97
100645118	1000	1000	1175	1255	1050	51	36	24	M33	138.79



AS2129 T/E GALVANISED BACKING RINGS

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645155	20	15	67	95	32	6	14	4	M12	0.27
100645158	25	20	73	100	37	6	14	4	M12	0.29
100645161	32	25	83	115	44	7	14	4	M12	0.45
100645164	40	32	87	120	52	8	14	4	M12	0.54
100645167	50	40	98	135	62	9	14	4	M12	0.75
100645170	63	50	114	150	74	10	18	4	M16	0.97
100645172	75	65	127	165	87	10	18	4	M16	1.13
100645175	90	80	146	185	103	12	18	4	M16	1.65
100645149	110	100	178	215	125	13	18	8	M16	2.24
100645150	125	100	178	215	140	14	18	8	M16	2.07
100645151	125	125	210	255	140	14	18	8	M16	3.70
100645152	160	150	235	280	175	17	22	8	M20	4.60
100645153	180	150	235	280	185	17	22	8	M20	4.22
100645154	200	200	292	335	230	19	22	8	M20	6.50
100645156	225	200	292	335	240	19	22	8	M20	5.94
100645157	250	250	356	405	290	22	22	12	M20	10.05
100645159	280	250	356	405	300	22	22	12	M20	9.25
100645160	315	300	406	455	345	25	26	12	M24	12.31
100645162	355	350	470	525	373	29	26	12	M24	22.95
100645163	400	400	521	580	425	32	26	12	M24	29.13
100645165	450	450	584	640	480	32	26	16	M24	33.22
100645166	500	500	641	705	533	38	26	16	M24	47.35
100645168	560	560	699	760	590	44	30	16	M27	58.35
100645169	630	600	756	825	660	48	33	16	M30	67.35
100645171	710	700	845	910	745	51	33	20	M30	79.01
100645173	800	800	984	1060	835	54	36	20	M33	133.32
100645174	900	900	1092	1175	947	64	36	24	M33	178.62
100645148	1000	1000	1175	1255	1050	67	39	24	M36	180.10

T/H (CHINA PUMP) GALVANISED BACKING RINGS

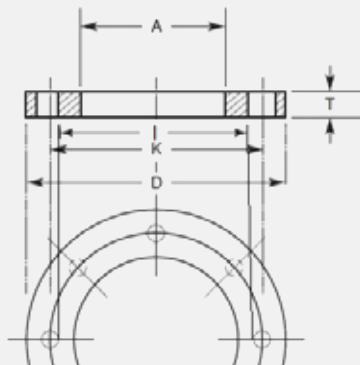
CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645207	160 T/H	150	210	260	165	13	18	6	M16	3.08
100645208	180 T/H	150	210	260	185	13	18	6	M16	2.52
100645209	200 T/H	200	270	310	205	13	18	6	M16	4.18
100645210	225 T/H	200	270	310	230	13	18	6	M16	3.31
100645211	250 T/H	250	320	365	255	16	18	8	M16	6.47
100645212	280 T/H	250	320	365	290	16	18	8	M16	4.59
100645213	315 T/H	300	380	440	320	19	18	8	M16	10.38

AS4087 T/D GALVANISED MOD BACKING RINGS

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645201	315/355	315	406	455	360	23	22	12	M20	10.19
100645202	355/400	355	470	525	406	30	26	12	M24	17.11
100645203	400/450	400	521	580	456	30	26	12	M24	19.45
100645204	450/500	450	584	640	506	30	26	12	M24	26.37
100645205	500/560	500	641	705	566	38	26	16	M24	36.14
100645206	560/630	560	699	760	636	44	30	16	M27	35.76

ANSI 150 GALVANISED BACKING RINGS

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645100	20	15	60.5	90	32	6	16	4	M14	0.22
100645103	25	20	70	98	37	8	16	4	M14	0.36
100645106	32	25	79.5	108	44	8	16	4	M14	0.43
100645109	40	32	89	117	52	8	16	4	M14	0.49
100645112	50	40	98.5	127	62	10	16	4	M14	0.69
100645115	63	50	120.5	152	78	10	20	4	M16	0.95
100645116	75	65	139.5	178	92	10	20	4	M16	1.33
100645117	60	80	152	191	108	12	20	4	M16	1.72
100645094	110	100	190.5	229	128	12	20	8	M16	2.43
100645095	125	125	216	254	140	16	23	8	M20	4.01
100645096	140	125	216	254	158	16	23	8	M20	3.48
100645097	160	150	241	279	178	16	23	8	M20	4.14
100645098	180	150	241	279	195	16	23	8	M20	3.51
100645099	200	200	298.5	343	235	20	23	8	M20	7.18
100645101	225	200	298.5	343	240	20	23	8	M20	6.88
100645102	250	250	362	406	290	20	26	12	M24	8.95
100645104	280	250	362	406	300	20	26	12	M24	8.23
100645105	315	300	432	483	345	25	26	12	M24	16.36
100645107	355	350	476	535	376	28	29	12	M27	23.26
100645108	400	400	540	600	430	32	29	16	M27	31.89
100645110	450	450	578	635	480	36	29	16	M27	34.72
100645111	500	500	635	700	533	40	29	20	M27	45.73
100645113	560	560	692	750	590	46	29	20	M27	53.85
100645114	630	600	749	813	660	50	29	20	M27	61.92



AS2129 T/D GALVANISED BLIND PLATE

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645222	20	15	67	95	N/A	6	14	4	M12	0.30
100645225	25	20	73	100	N/A	6	14	4	M12	0.34
100645228	32	25	83	115	N/A	6	14	4	M12	0.46
100645231	40	32	87	120	N/A	6	14	4	M12	0.50
100645234	50	40	98	135	N/A	8	14	4	M12	0.86
100645237	63	50	114	150	N/A	8	18	4	M16	1.05
100645239	75	65	127	165	N/A	8	18	4	M16	1.28
100645242	90	80	146	185	N/A	10	18	4	M16	2.03
100645215	110	100	178	215	N/A	10	18	4	M16	2.77
100645216	125	100	178	215	N/A	13	18	8	M16	3.50
100645217	125	125	210	255	N/A	13	18	8	M16	5.00
100645218	140	125	210	255	N/A	13	18	8	M16	5.00
100645219	160	150	235	280	N/A	13	18	8	M16	6.08
100645220	180	150	235	280	N/A	13	18	8	M16	6.08
100645221	200	200	292	335	N/A	13	18	8	M16	8.79
100645223	225	200	292	335	N/A	13	18	8	M16	8.79
100645224	250	250	356	405	N/A	16	22	8	M20	15.80
100645226	280	250	356	405	N/A	16	22	8	M20	15.80
100645227	315	300	406	455	N/A	19	26	12	M24	23.30
100645229	355	350	470	525	N/A	22	26	12	M24	36.28
100645230	400	400	580	580	N/A	22	26	12	M24	44.53
100645232	450	450	584	640	N/A	25	26	12	M24	61.88
100645233	500	500	641	705	N/A	29	26	16	M24	86.93
100645235	560	560	699	760	N/A	32	30	16	M27	111.11
100645236	630	600	756	825	N/A	32	33	16	M30	130.84
100645238	710	700	845	910	N/A	35	33	20	M30	173.98
100645240	800	800	984	1060	N/A	41	36	20	M33	277.46
100645241	900	900	1092	1175	N/A	48	36	24	M33	399.35
100645214	1000	1000	1175	1255	N/A	51	36	24	M33	485.43

12mm GALVANISED PUDDLE FLANGE RINGS (GMW SPEC)

CODE	SIZE (PIPE OD)	NOMINAL FLANGE SIZE	PCD (K)	OD (D)	ID (A)	THICKNESS (T)	HOLE DIA. (S)	NO. OF BOLT HOLES	BOLT SIZE	WEIGHT (KG)
100645244	315	300	406	455	345	12	20	12	M16	6.16
100645245	355	350	470	525	376	12	20	12	M16	9.58
100645246	400	400	521	580	454	12	20	12	M16	9.28
100645247	450	450	584	640	480	12	20	12	M16	12.90
100645248	500	500	641	705	535	12	20	16	M16	15.12
100645249	560	560	699	760	618	12	20	16	M16	14.00
100645250	630	600	756	825	675	12	20	16	M16	16.17
100645251	710	700	845	910	740	12	20	20	M16	20.16
100645252	800	800	984	1060	845	12	20	20	M16	29.71
100645253	900	900	1092	1175	946	12	20	24	M16	35.22
100645243	1000	1000	1175	1255	1045	12	20	24	M16	35.02

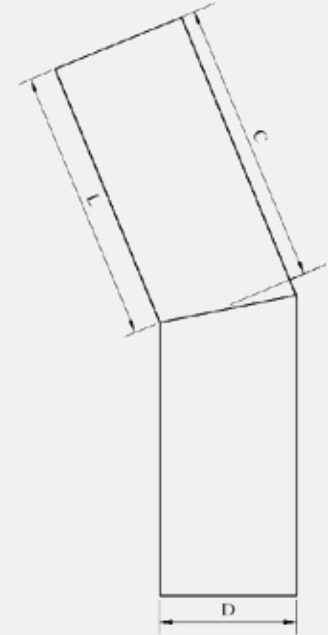
FABRICATED FITTINGS (PE100)



**Gradian
Hydrotech**

SEGMENTED BEND SDR41 0 - 30 DEG

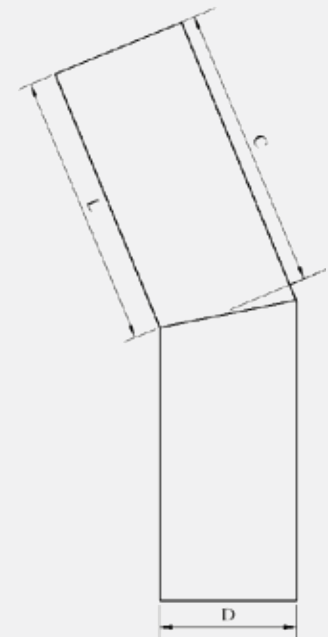
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	THICKNESS (T)	WEIGHT (KG)
FSB413090	90	300	350	2.2	
FSB4130110	110	300	350	2.69	1
FSB4130125	125	300	350	3.05	1
FSB4130140	140	300	350	3.42	2
FSB4130160	160	300	350	3.91	2
FSB4130180	180	500	550	4.4	3
FSB4130200	200	500	550	4.88	4
FSB4130225	225	500	600	5.49	5
FSB4130250	250	650	750	6.1	8
FSB4130280	280	650	750	6.83	10
FSB4130315	315	650	750	7.69	12
FSB4130355	355	1000	1100	8.66	22
FSB4130400	400	1000	1100	9.76	28
FSB4130450	450	1000	1150	10.98	36
FSB4130500	500	1000	1150	12.2	45
FSB4130560	560	1000	1150	13.66	56
FSB4130630	630	1000	1200	15.37	73
FSB4130710	710	1000	1200	17.32	93
FSB4130800	800	1000	1200	19.52	118
FSB4130900	900	1500	1750	21.96	217
FSB41301000	1000	1500	1750	24.4	268
FSB41301200	1200	1500	1800	29.27	397



SDR41

SEGMENTED BEND SDR26 0 - 30 DEG

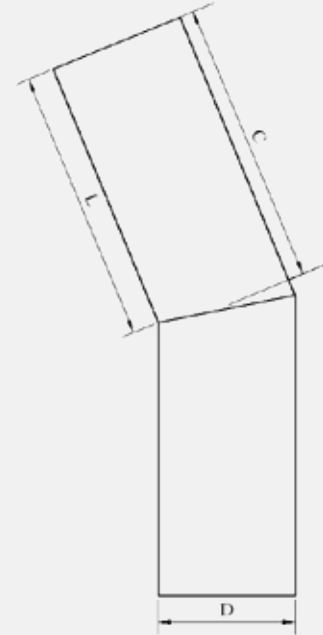
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	THICKNESS (T)	WEIGHT (KG)
FSB263090	90	300	350	3.47	1
FSB2630110	110	300	350	4.24	2
FSB2630125	125	300	350	4.81	2
FSB2630140	140	300	350	5.39	2
FSB2630160	160	300	350	6.16	3
FSB2630180	180	500	550	6.93	5
FSB2630200	200	500	550	7.7	6
FSB2630225	225	500	600	8.66	8
FSB2630250	250	650	750	9.62	12
FSB2630280	280	650	750	10.77	14
FSB2630315	315	650	750	12.12	18
FSB2630355	355	1000	1100	13.66	33
FSB2630400	400	1000	1100	15.39	42
FSB2630450	450	1000	1150	17.31	55
FSB2630500	500	1000	1150	19.24	68
FSB2630560	560	1000	1150	21.54	85
FSB2630630	630	1000	1200	24.24	113
FSB2630710	710	1000	1200	27.31	143
FSB2630800	800	1000	1200	30.77	181
FSB2630900	900	1500	1750	34.62	334
FSB26301000	1000	1500	1750	38.47	412
FSB26301200	1200	1500	1800	46.16	610



SDR26

SEGMENTED BEND SDR21 0 - 30 DEG

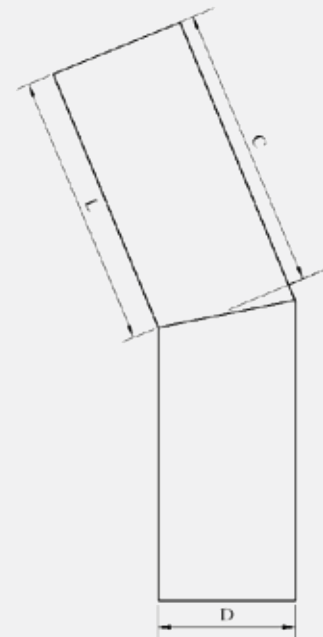
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	THICKNESS (T)	WEIGHT (KG)
FSB213090	90	300	350	4.29	1
FSB2130110	110	300	350	5.24	2
FSB2130125	125	300	350	5.96	2
FSB2130140	140	300	350	6.67	3
FSB2130160	160	300	350	7.62	3
FSB2130180	180	500	550	8.58	6
FSB2130200	200	500	550	9.53	7
FSB2130225	225	500	600	10.72	9
FSB2130250	250	650	750	11.91	14
FSB2130280	280	650	750	13.34	18
FSB2130315	315	650	750	15	22
FSB2130355	355	1000	1100	16.91	41
FSB2130400	400	1000	1100	19.05	52
FSB2130450	450	1000	1150	21.43	68
FSB2130500	500	1000	1150	23.81	84
FSB2130560	560	1000	1150	26.67	105
FSB2130630	630	1000	1200	30	138
FSB2130710	710	1000	1200	33.81	176
FSB2130800	800	1000	1200	38.1	223
FSB2130900	900	1500	1750	42.86	411
FSB21301000	1000	1500	1750	47.62	508
FSB21301200	1200	1500	1800	57.15	752



SDR21

SEGMENTED BEND SDR17 0 - 30 DEG

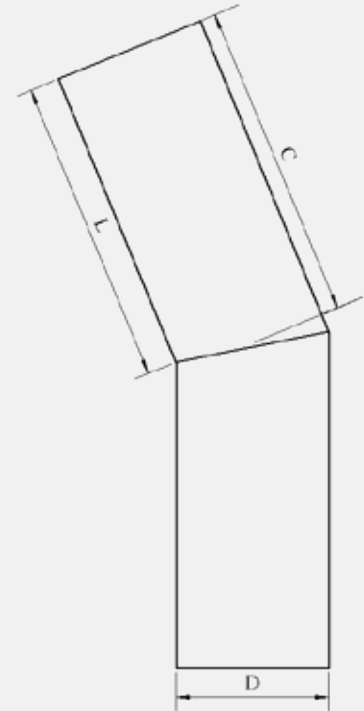
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	THICKNESS (T)	WEIGHT (KG)
FSB173090	90	300	350	5.3	2
FSB1730110	110	300	350	6.48	2
FSB1730125	125	300	350	7.36	2
FSB1730140	140	300	350	8.24	3
FSB1730160	160	300	350	9.42	4
FSB1730180	180	500	550	10.59	7
FSB1730200	200	500	550	11.77	8
FSB1730225	225	500	600	13.24	11
FSB1730250	250	650	750	14.71	17
FSB1730280	280	650	750	16.48	21
FSB1730315	315	650	750	18.53	27
FSB1730355	355	1000	1100	20.89	50
FSB1730400	400	1000	1100	23.53	63
FSB1730450	450	1000	1150	26.48	84
FSB1730500	500	1000	1150	29.42	103
FSB1730560	560	1000	1150	32.95	129
FSB1730630	630	1000	1200	37.06	170
FSB1730710	710	1000	1200	41.77	216
FSB1730800	800	1000	1200	47.06	274
FSB1730900	900	1500	1750	52.95	506
FSB17301000	1000	1500	1750	58.83	624
FSB17301200	1200	1500	1800	70.59	883



SDR17

SEGMENTED BEND SDR13.6 0 - 30 DEG

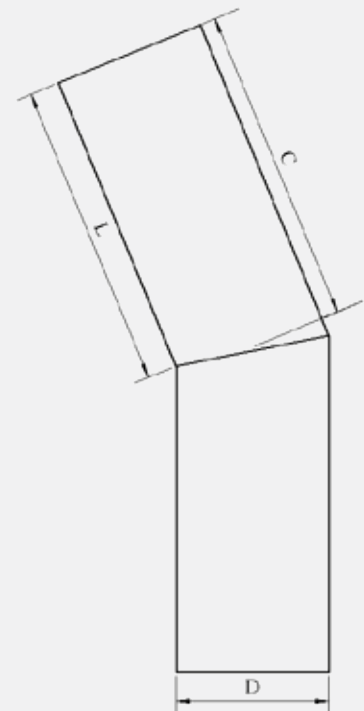
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	THICKNESS (T)	WEIGHT (KG)
FSB133090	90	300	350	6.62	2
FSB1330110	110	300	350	8.09	2
FSB1330125	125	300	350	9.2	3
FSB1330140	140	300	350	10.3	4
FSB1330160	160	300	350	11.77	4
FSB1330180	180	500	550	13.24	8
FSB1330200	200	500	550	14.71	10
FSB1330225	225	500	600	16.55	14
FSB1330250	250	650	750	18.39	21
FSB1330280	280	650	750	20.59	26
FSB1330315	315	650	750	23.17	33
FSB1330355	355	1000	1100	26.11	61
FSB1330400	400	1000	1100	29.42	77
FSB1330450	450	1000	1150	33.09	102
FSB1330500	500	1000	1150	36.77	126
FSB1330560	560	1000	1150	41.18	157
FSB1330630	630	1000	1200	46.33	207
FSB1330710	710	1000	1200	52.21	263
FSB1330800	800	1000	1200	58.83	332
FSB1330900	900	1500	1750	66.18	617
FSB13301000	1000	1500	1750	73.53	751
FSB13301200	1200	1500	1800	88.24	1126



SDR13

SEGMENTED BEND SDR11 0 - 30 DEG

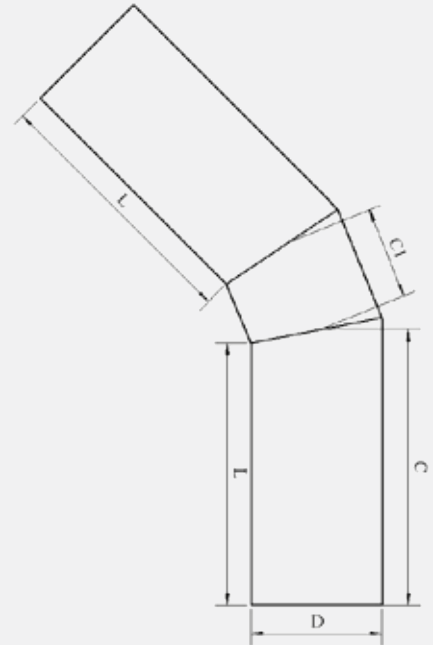
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	THICKNESS (T)	WEIGHT (KG)
FSB113090	90	300	350	8.19	2
FSB1130110	110	300	350	10	3
FSB1130125	125	300	350	11.37	3
FSB1130140	140	300	350	12.73	4
FSB1130160	160	300	350	14.55	5
FSB1130180	180	500	550	16.37	10
FSB1130200	200	500	550	18.19	12
FSB1130225	225	500	600	20.46	17
FSB1130250	250	650	750	22.73	25
FSB1130280	280	650	750	25.46	31
FSB1130315	315	650	750	28.64	40
FSB1130355	355	1000	1100	32.28	73
FSB1130400	400	1000	1100	36.37	93
FSB1130450	450	1000	1150	40.91	123
FSB1130500	500	1000	1150	45.46	152
FSB1130560	560	1000	1150	50.91	314
FSB1130630	630	1000	1200	57.28	251
FSB1130710	710	1000	1200	64.55	319
FSB1130800	800	1000	1200	72.73	404
FSB1130900	900	1500	1750	81.82	746
FSB11301000	1000	1500	1750	90.91	915
FSB11301200	1200	1500	1800	109.1	



SDR11

SEGMENTED BEND SDR41 31 - 60 DEG

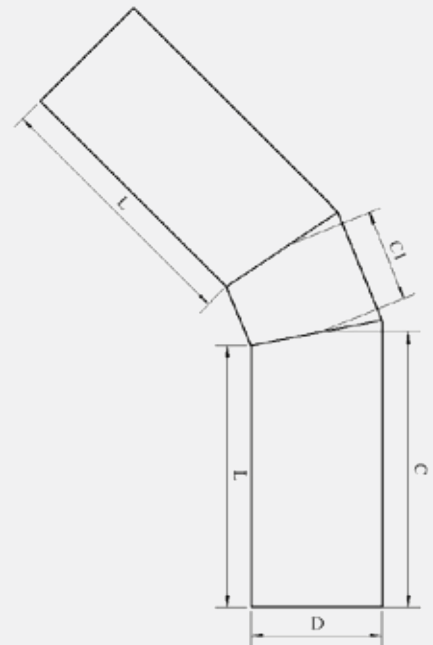
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB414590	90	300	350	150	2.2	0
FSB4145110	110	300	350	150	2.69	1
FSB4145125	125	300	350	150	3.05	2
FSB4145140	140	300	350	150	3.42	2
FSB4145160	160	300	350	200	3.91	2
FSB4145180	180	500	550	200	4.4	4
FSB4145200	200	500	550	200	4.88	5
FSB4145225	225	500	600	200	5.49	20
FSB4145250	250	650	750	300	6.1	9
FSB4145280	280	650	750	300	6.83	11
FSB4145315	315	650	750	300	7.69	15
FSB4145355	355	1000	1100	400	8.66	26
FSB4145400	400	1000	1100	400	9.76	34
FSB4145450	450	1000	1150	500	10.98	44
FSB4145500	500	1000	1150	500	12.2	54
FSB4145560	560	1000	1150	500	13.66	70
FSB4145630	630	1000	1200	600	15.37	92
FSB4145710	710	1000	1200	600	17.32	116
FSB4145800	800	1000	1200	600	19.52	148
FSB4145900	900	1500	1750	600	21.96	254
FSB41451000	1000	1500	1750	600	24.4	314
FSB41451200	1200	1500	1800	600	29.27	397



SDR41

SEGMENTED BEND SDR26 31 - 60 DEG

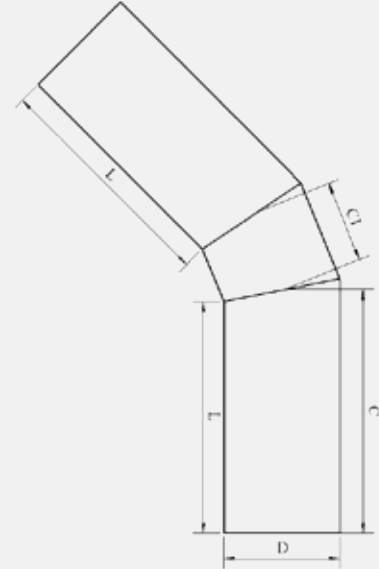
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB264590	90	300	350	150	3.47	1
FSB2645110	110	300	350	150	4.24	2
FSB2645125	125	300	350	150	4.81	2
FSB2645140	140	300	350	150	5.39	3
FSB2645160	160	300	350	200	6.16	3
FSB2645180	180	500	550	200	6.93	5
FSB2645200	200	500	550	200	7.7	7
FSB2645225	225	500	600	200	8.66	9
FSB2645250	250	650	750	300	9.62	14
FSB2645280	280	650	750	300	10.77	17
FSB2645315	315	650	750	300	12.12	23
FSB2645355	355	1000	1100	400	13.66	39
FSB2645400	400	1000	1100	400	15.39	51
FSB2645450	450	1000	1150	500	17.31	67
FSB2645500	500	1000	1150	500	19.24	83
FSB2645560	560	1000	1150	500	21.54	108
FSB2645630	630	1000	1200	600	24.24	141
FSB2645710	710	1000	1200	600	27.31	179
FSB2645800	800	1000	1200	600	30.77	226
FSB2645900	900	1500	1750	600	34.62	391
FSB26451000	1000	1500	1750	600	38.47	482
FSB26451200	1200	1500	1800	600	46.16	610



SDR26

SEGMENTED BEND SDR21 31 - 60 DEG

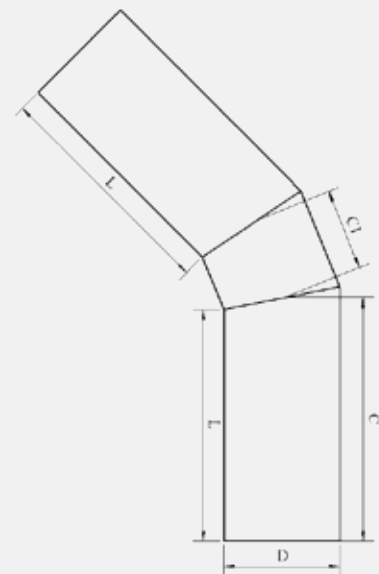
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB214590	90	300	350	150	4.29	2
FSB2145110	110	300	350	150	5.24	2
FSB2145125	125	300	350	150	5.96	2
FSB2145140	140	300	350	150	6.67	3
FSB2145160	160	300	350	200	7.62	4
FSB2145180	180	500	550	200	8.58	7
FSB2145200	200	500	550	200	9.53	8
FSB2145225	225	500	600	200	10.72	12
FSB2145250	250	650	750	300	11.91	17
FSB2145280	280	650	750	300	13.34	21
FSB2145315	315	650	750	300	15	28
FSB2145355	355	1000	1100	400	16.91	48
FSB2145400	400	1000	1100	400	19.05	63
FSB2145450	450	1000	1150	500	21.43	83
FSB2145500	500	1000	1150	500	23.81	102
FSB2145560	560	1000	1150	500	26.67	133
FSB2145630	630	1000	1200	600	30	173
FSB2145710	710	1000	1200	600	33.81	220
FSB2145800	800	1000	1200	600	38.1	279
FSB2145900	900	1500	1750	600	42.86	482
FSB21451000	1000	1500	1750	600	47.62	595
FSB21451200	1200	1500	1800	600	57.15	752



SDR21

SEGMENTED BEND SDR17 31 - 60 DEG

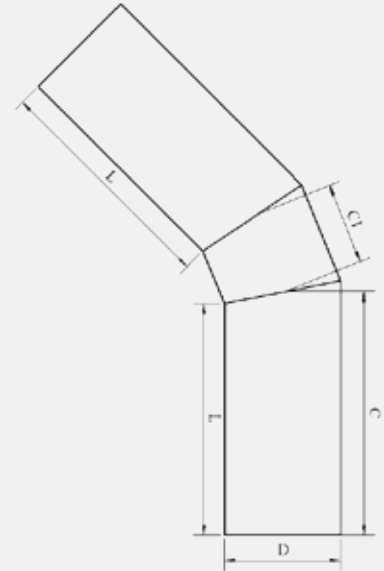
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB174590	90	300	350	150	5.3	2
FSB1745110	110	300	350	150	6.48	2
FSB1745125	125	300	350	150	7.36	3
FSB1745140	140	300	350	150	8.24	4
FSB1745160	160	300	350	200	9.42	5
FSB1745180	180	500	550	200	10.59	8
FSB1745200	200	500	550	200	11.77	10
FSB1745225	225	500	600	200	13.24	14
FSB1745250	250	650	750	300	14.71	21
FSB1745280	280	650	750	300	16.48	26
FSB1745315	315	650	750	300	18.53	34
FSB1745355	355	1000	1100	400	20.89	59
FSB1745400	400	1000	1100	400	23.53	77
FSB1745450	450	1000	1150	500	26.48	102
FSB1745500	500	1000	1150	500	29.42	125
FSB1745560	560	1000	1150	500	32.95	163
FSB1745630	630	1000	1200	600	37.06	212
FSB1745710	710	1000	1200	600	41.77	270
FSB1745800	800	1000	1200	600	47.06	342
FSB1745900	900	1500	1750	600	52.95	593
FSB17451000	1000	1500	1750	600	58.83	731
FSB17451200	1200	1500	1800	600	70.59	883



SDR17

SEGMENTED BEND SDR13.6 31 - 60 DEG

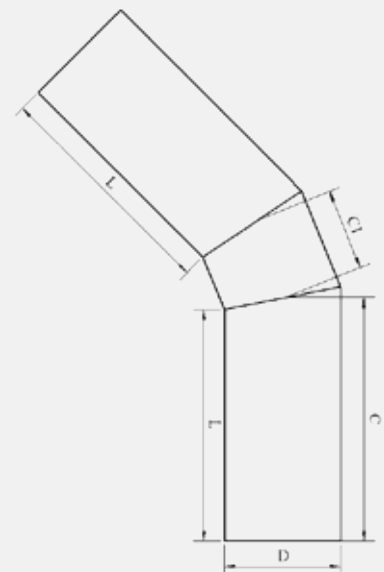
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB134590	90	300	350	150	6.62	2
FSB1345110	110	300	350	150	8.09	3
FSB1345125	125	300	350	150	9.2	3
FSB1345140	140	300	350	150	10.3	4
FSB1345160	160	300	350	200	11.77	6
FSB1345180	180	500	550	200	13.24	10
FSB1345200	200	500	550	200	14.71	12
FSB1345225	225	500	600	200	16.55	17
FSB1345250	250	650	750	300	18.39	25
FSB1345280	280	650	750	300	20.59	31
FSB1345315	315	650	750	300	23.17	42
FSB1345355	355	1000	1100	400	26.11	72
FSB1345400	400	1000	1100	400	29.42	94
FSB1345450	450	1000	1150	500	33.09	124
FSB1345500	500	1000	1150	500	36.77	153
FSB1345560	560	1000	1150	500	41.18	198
FSB1345630	630	1000	1200	600	46.33	259
FSB1345710	710	1000	1200	600	52.21	329
FSB1345800	800	1000	1200	600	58.83	414
FSB1345900	900	1500	1750	600	66.18	722
FSB13451000	1000	1500	1750	600	73.53	880
FSB13451200	1200	1500	1800	600	88.24	1126



SDR13.6

SEGMENTED BEND SDR11 31 - 60 DEG

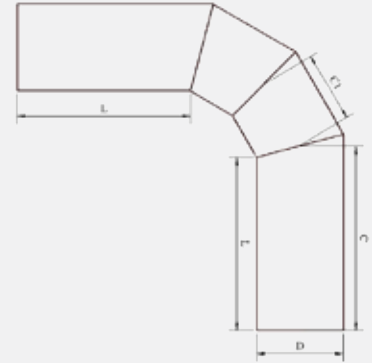
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB114590	90	300	350	150	8.19	2
FSB1145110	110	300	350	150	10	3
FSB1145125	125	300	350	150	11.37	4
FSB1145140	140	300	350	150	12.73	5
FSB1145160	160	300	350	200	14.55	7
FSB1145180	180	500	550	200	16.37	12
FSB1145200	200	500	550	200	18.19	14
FSB1145225	225	500	600	200	20.46	21
FSB1145250	250	650	750	300	22.73	30
FSB1145280	280	650	750	300	25.46	38
FSB1145315	315	650	750	300	28.64	50
FSB1145355	355	1000	1100	400	32.28	87
FSB1145400	400	1000	1100	400	36.37	114
FSB1145450	450	1000	1150	500	40.91	150
FSB1145500	500	1000	1150	500	45.46	185
FSB1145560	560	1000	1150	500	50.91	239
FSB1145630	630	1000	1200	600	57.28	314
FSB1145710	710	1000	1200	600	64.55	398
FSB1145800	800	1000	1200	600	72.73	505
FSB1145900	900	1500	1750	600	81.82	873
FSB11451000	1000	1500	1750	600	90.91	1072
FSB11451200	1200	1500	1800	600	109.1	1472



SDR11

SEGMENTED BEND 3CUT SDR41 61 - 90 DEG

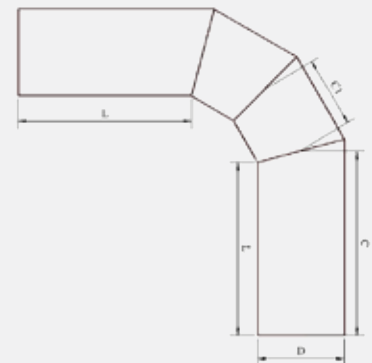
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB419090	90	300	350	150	2.2	0
FSB4190110	110	300	350	150	2.69	1
FSB4190125	125	300	350	150	3.05	2
FSB4190140	140	300	350	150	3.42	2
FSB4190160	160	300	350	200	3.91	3
FSB4190180	180	500	550	200	4.4	4
FSB4190200	200	500	550	200	4.88	5
FSB4190225	225	500	600	200	5.49	7
FSB4190250	250	650	750	300	6.1	11
FSB4190280	280	650	750	300	6.83	13
FSB4190315	315	650	750	300	7.69	17
FSB4190355	355	1000	1100	400	8.66	30
FSB4190400	400	1000	1100	400	9.76	37
FSB4190450	450	1000	1150	500	10.98	52
FSB4190500	500	1000	1150	500	12.2	64
FSB4190560	560	1000	1150	500	13.66	80
FSB4190630	630	1000	1200	600	15.37	110
FSB4190710	710	1000	1200	600	17.32	140
FSB4190800	800	1000	1200	600	19.52	177
FSB4190900	900	1500	1750	600	21.96	291
FSB41901000	1000	1500	1750	600	24.4	360
FSB41901200	1200	1500	1800	600	29.27	529



SDR41

SEGMENTED BEND 3CUT SDR26 61 - 90 DEG

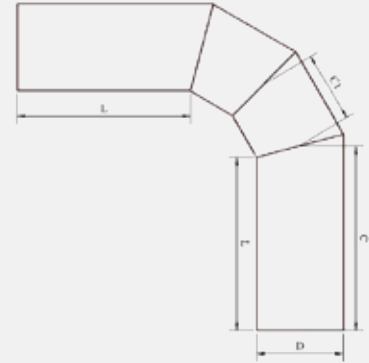
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB269090	90	300	350	150	3.47	1
FSB2690110	110	300	350	150	4.24	2
FSB2690125	125	300	350	150	4.81	2
FSB2690140	140	300	350	150	5.39	3
FSB2690160	160	300	350	200	6.16	4
FSB2690180	180	500	550	200	6.93	6
FSB2690200	200	500	550	200	7.7	8
FSB2690225	225	500	600	200	8.66	10
FSB2690250	250	650	750	300	9.62	16
FSB2690280	280	650	750	300	10.77	20
FSB2690315	315	650	750	300	12.12	25
FSB2690355	355	1000	1100	400	13.66	45
FSB2690400	400	1000	1100	400	15.39	57
FSB2690450	450	1000	1150	500	17.31	79
FSB2690500	500	1000	1150	500	19.24	98
FSB2690560	560	1000	1150	500	21.54	122
FSB2690630	630	1000	1200	600	24.24	169
FSB2690710	710	1000	1200	600	27.31	215
FSB2690800	800	1000	1200	600	30.77	272
FSB2690900	900	1500	1750	600	34.62	448
FSB26901000	1000	1500	1750	600	38.47	553
FSB26901200	1200	1500	1800	600	46.16	813



SDR26

SEGMENTED BEND 3CUT SDR21 61 - 90 DEG

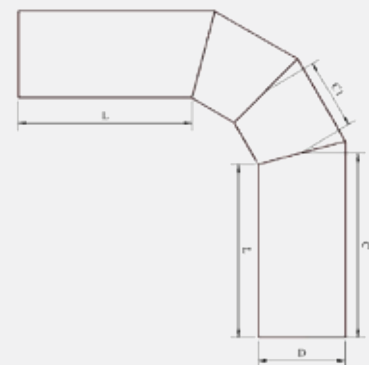
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB219090	90	300	350	150	4.29	2
FSB2190110	110	300	350	150	5.24	2
FSB2190125	125	300	350	150	5.96	3
FSB2190140	140	300	350	150	6.67	3
FSB2190160	160	300	350	200	7.62	5
FSB2190180	180	500	550	200	8.58	8
FSB2190200	200	500	550	200	9.53	9
FSB2190225	225	500	600	200	10.72	12
FSB2190250	250	650	750	300	11.91	20
FSB2190280	280	650	750	300	13.34	25
FSB2190315	315	650	750	300	15	31
FSB2190355	355	1000	1100	400	16.91	55
FSB2190400	400	1000	1100	400	19.05	70
FSB2190450	450	1000	1150	500	21.43	98
FSB2190500	500	1000	1150	500	23.81	121
FSB2190560	560	1000	1150	500	26.67	151
FSB2190630	630	1000	1200	600	30	207
FSB2190710	710	1000	1200	600	33.81	264
FSB2190800	800	1000	1200	600	38.1	335
FSB2190900	900	1500	1750	600	42.86	552
FSB21901000	1000	1500	1750	600	47.62	682
FSB21901200	1200	1500	1800	600	57.15	1002



SDR21

SEGMENTED BEND 3CUT SDR17 61 - 90 DEG

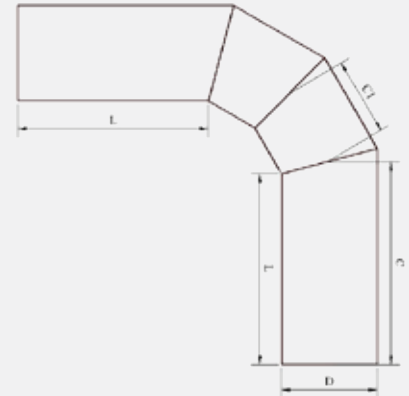
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB179090	90	300	350	150	5.3	2
FSB1790110	110	300	350	150	6.48	3
FSB1790125	125	300	350	150	7.36	3
FSB1790140	140	300	350	150	8.24	4
FSB1790160	160	300	350	200	9.42	6
FSB1790180	180	500	550	200	10.59	9
FSB1790200	200	500	550	200	11.77	11
FSB1790225	225	500	600	200	13.24	15
FSB1790250	250	650	750	300	14.71	24
FSB1790280	280	650	750	300	16.48	30
FSB1790315	315	650	750	300	18.53	38
FSB1790355	355	1000	1100	400	20.89	68
FSB1790400	400	1000	1100	400	23.53	86
FSB1790450	450	1000	1150	500	26.48	120
FSB1790500	500	1000	1150	500	29.42	147
FSB1790560	560	1000	1150	500	32.95	185
FSB1790630	630	1000	1200	600	37.06	255
FSB1790710	710	1000	1200	600	41.77	324
FSB1790800	800	1000	1200	600	47.06	411
FSB1790900	900	1500	1750	600	52.95	680
FSB17901000	1000	1500	1750	600	58.83	837
FSB17901200	1200	1500	1800	600	70.59	1177



SDR17

SEGMENTED BEND 3CUT SDR13.6 61 - 90 DEG

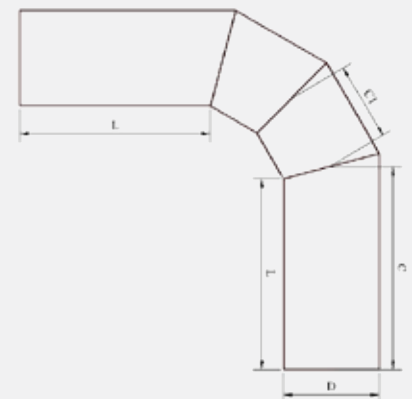
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB139090	90	300	350	150	6.62	2
FSB1390110	110	300	350	150	8.09	3
FSB1390125	125	300	350	150	9.2	4
FSB1390140	140	300	350	150	10.3	5
FSB1390160	160	300	350	200	11.77	7
FSB1390180	180	500	550	200	13.24	11
FSB1390200	200	500	550	200	14.71	14
FSB1390225	225	500	600	200	16.55	18
FSB1390250	250	650	750	300	18.39	29
FSB1390280	280	650	750	300	20.59	36
FSB1390315	315	650	750	300	23.17	46
FSB1390355	355	1000	1100	400	26.11	83
FSB1390400	400	1000	1100	400	29.42	105
FSB1390450	450	1000	1150	500	33.09	146
FSB1390500	500	1000	1150	500	36.77	180
FSB1390560	560	1000	1150	500	41.18	226
FSB1390630	630	1000	1200	600	46.33	311
FSB1390710	710	1000	1200	600	52.21	395
FSB1390800	800	1000	1200	600	58.83	497
FSB1390900	900	1500	1750	600	66.18	828
FSB13901000	1000	1500	1750	600	73.53	1008
FSB13901200	1200	1500	1800	600	88.24	1501



SDR13.6

SEGMENTED BEND 3CUT SDR11 61 - 90 DEG

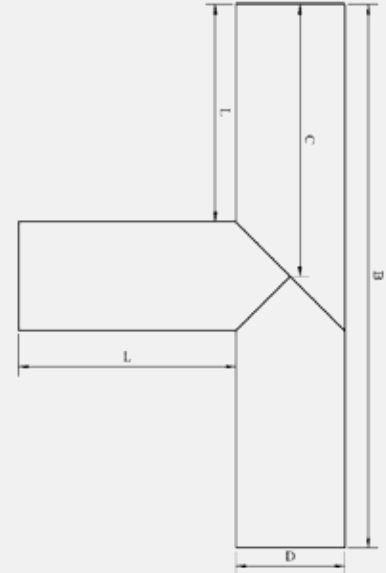
CODE	SIZE (D)	SPIGOT (L)	SPIGOT CENTRE (C)	SEGMENT CENTRE (C1)	THICK- NESS (T)	WEIGHT (KG)
FSB119090	90	300	350	150	8.19	3
FSB1190110	110	300	350	150	10	4
FSB1190125	125	300	350	150	11.37	5
FSB1190140	140	300	350	150	12.73	6
FSB1190160	160	300	350	200	14.55	8
FSB1190180	180	500	550	200	16.37	13
FSB1190200	200	500	550	200	18.19	16
FSB1190225	225	500	600	200	20.46	22
FSB1190250	250	650	750	300	22.73	35
FSB1190280	280	650	750	300	25.46	44
FSB1190315	315	650	750	300	28.64	55
FSB1190355	355	1000	1100	400	32.28	100
FSB1190400	400	1000	1100	400	36.37	127
FSB1190450	450	1000	1150	500	40.91	176
FSB1190500	500	1000	1150	500	45.46	218
FSB1190560	560	1000	1150	500	50.91	272
FSB1190630	630	1000	1200	600	57.28	376
FSB1190710	710	1000	1200	600	64.55	478
FSB1190800	800	1000	1200	600	72.73	606
FSB1190900	900	1500	1750	600	81.82	1001
FSB11901000	1000	1500	1750	600	90.91	1229
FSB11901200	1200	1500	1800	600	109.1	



SDR11

POLY FABRICATED EQUAL TEE SDR41

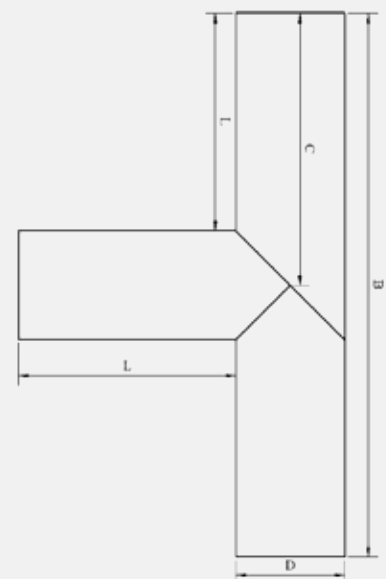
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FET4190	90	300	690	350	2.2	0
FET41110	110	300	710	350	2.69	2
FET41125	125	300	725	350	3.05	2
FET41140	140	300	740	350	3.42	2
FET41160	160	300	760	350	3.91	3
FET41180	180	500	1180	550	4.4	5
FET41200	200	500	1200	550	4.88	6
FET41225	225	500	1225	600	5.49	8
FET41250	250	650	1550	750	6.1	12
FET41280	280	650	1580	750	6.83	15
FET41315	315	650	1615	750	7.69	20
FET41355	355	1000	2355	1100	8.66	35
FET41400	400	1000	2400	1100	9.76	45
FET41450	450	1000	2450	1150	10.98	59
FET41500	500	1000	2500	1150	12.2	73
FET41560	560	1000	2560	1150	13.66	94
FET41630	630	1000	2630	1200	15.37	123
FET41710	710	1000	2710	1200	17.32	163
FET41800	800	1000	2800	1200	19.52	206
FET41900	900	1500	3900	1750	21.96	362
FET411000	1000	1500	4000	1750	24.4	460
FET411200	1200	1500	4200	1800	29.27	694



SDR41

POLY FABRICATED EQUAL TEE SDR26

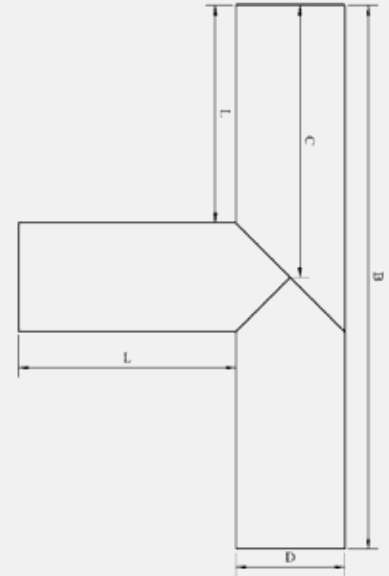
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FET2690	90	300	690	350	3.47	2
FET26110	110	300	710	350	4.24	2
FET26125	125	300	725	350	4.81	3
FET26140	140	300	740	350	5.39	3
FET26160	160	300	760	350	6.16	4
FET26180	180	500	1180	550	6.93	7
FET26200	200	500	1200	550	7.7	9
FET26225	225	500	1225	600	8.66	12
FET26250	250	650	1550	750	9.62	18
FET26280	280	650	1580	750	10.77	23
FET26315	315	650	1615	750	12.12	31
FET26355	355	1000	2355	1100	13.66	54
FET26400	400	1000	2400	1100	15.39	68
FET26450	450	1000	2450	1150	17.31	90
FET26500	500	1000	2500	1150	19.24	111
FET26560	560	1000	2560	1150	21.54	144
FET26630	630	1000	2630	1200	24.24	190
FET26710	710	1000	2710	1200	27.31	250
FET26800	800	1000	2800	1200	30.77	339
FET26900	900	1500	3900	1750	34.62	558
FET261000	1000	1500	4000	1750	38.47	705
FET261200	1200	1500	4200	1800	46.16	1066



SDR26

POLY FABRICATED EQUAL TEE SDR21

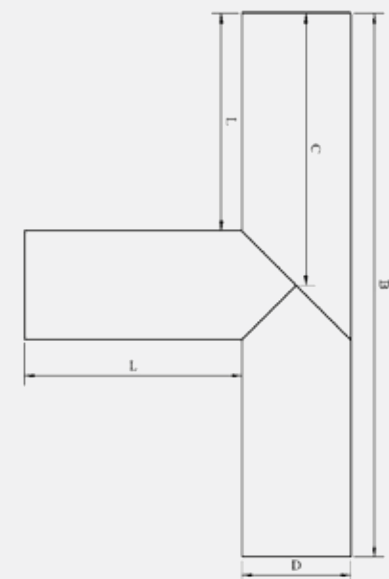
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FET2190	90	300	690	350	4.29	2
FET21110	110	300	710	350	5.24	3
FET21125	125	300	725	350	5.96	3
FET21140	140	300	740	350	6.67	4
FET21160	160	300	760	350	7.62	5
FET21180	180	500	1180	550	8.58	9
FET21200	200	500	1200	550	9.53	11
FET21225	225	500	1225	600	10.72	15
FET21250	250	650	1550	750	11.91	22
FET21280	280	650	1580	750	13.34	28
FET21315	315	650	1615	750	15	37
FET21355	355	1000	2355	1100	16.91	66
FET21400	400	1000	2400	1100	19.05	84
FET21450	450	1000	2450	1150	21.43	111
FET21500	500	1000	2500	1150	23.81	137
FET21560	560	1000	2560	1150	26.67	178
FET21630	630	1000	2630	1200	30	233
FET21710	710	1000	2710	1200	33.81	308
FET21800	800	1000	2800	1200	38.1	390
FET21900	900	1500	3900	1750	42.86	687
FET211000	1000	1500	4000	1750	47.62	871
FET211200	1200	1500	4200	1800	57.15	1315



SDR21

POLY FABRICATED EQUAL TEE SDR17

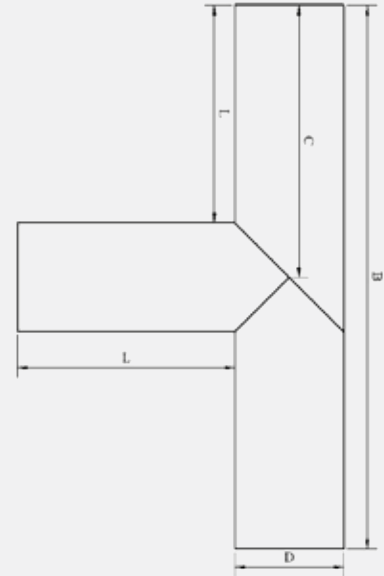
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FET1790	90	300	690	350	5.3	2
FET17110	110	300	710	350	6.48	3
FET17125	125	300	725	350	7.36	4
FET17140	140	300	740	350	8.24	5
FET17160	160	300	760	350	9.42	6
FET17180	180	500	1180	550	10.59	11
FET17200	200	500	1200	550	11.77	13
FET17225	225	500	1225	600	13.24	18
FET17250	250	650	1550	750	14.71	27
FET17280	280	650	1580	750	16.48	34
FET17315	315	650	1615	750	18.53	46
FET17355	355	1000	2355	1100	20.89	82
FET17400	400	1000	2400	1100	23.53	103
FET17450	450	1000	2450	1150	26.48	136
FET17500	500	1000	2500	1150	29.42	167
FET17560	560	1000	2560	1150	32.95	218
FET17630	630	1000	2630	1200	37.06	287
FET17710	710	1000	2710	1200	41.77	378
FET17800	800	1000	2800	1200	47.06	479
FET17900	900	1500	3900	1750	52.95	846
FET171000	1000	1500	4000	1750	58.83	1069
FET171200	1200	1500	4200	1800	70.59	1545



SDR17

POLY FABRICATED EQUAL TEE SDR13.6

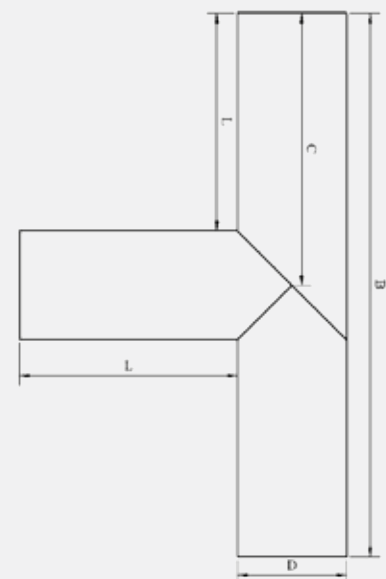
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FET1390	90	300	690	350	6.62	2
FET13110	110	300	710	350	8.09	4
FET13125	125	300	725	350	9.2	5
FET13140	140	300	740	350	10.3	6
FET13160	160	300	760	350	11.77	7
FET13180	180	500	1180	550	13.24	13
FET13200	200	500	1200	550	14.71	16
FET13225	225	500	1225	600	16.55	22
FET13250	250	650	1550	750	18.39	33
FET13280	280	650	1580	750	20.59	41
FET13315	315	650	1615	750	23.17	56
FET13355	355	1000	2355	1100	26.11	99
FET13400	400	1000	2400	1100	29.42	126
FET13450	450	1000	2450	1150	33.09	166
FET13500	500	1000	2500	1150	36.77	204
FET13560	560	1000	2560	1150	41.18	267
FET13630	630	1000	2630	1200	46.33	350
FET13710	710	1000	2710	1200	52.21	461
FET13800	800	1000	2800	1200	58.83	580
FET13900	900	1500	3900	1750	66.18	1030
FET131000	1000	1500	4000	1750	73.53	1287
FET131200	1200	1500	4200	1800	88.24	1970



SDR13.6

POLY FABRICATED EQUAL TEE SDR11

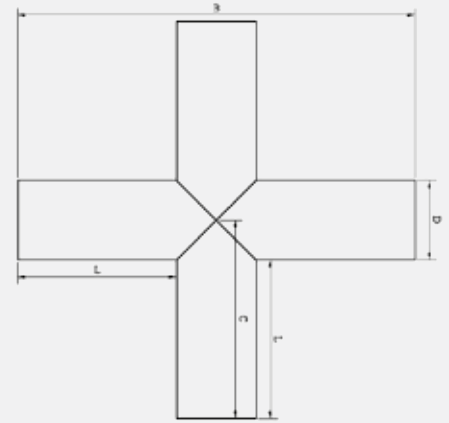
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FET1190	90	300	690	350	8.19	3
FET11110	110	300	710	350	10	4
FET11125	125	300	725	350	11.37	5
FET11140	140	300	740	350	12.73	7
FET11160	160	300	760	350	14.55	9
FET11180	180	500	1180	550	16.37	16
FET11200	200	500	1200	550	18.19	20
FET11225	225	500	1225	600	20.46	27
FET11250	250	650	1550	750	22.73	40
FET11280	280	650	1580	750	25.46	50
FET11315	315	650	1615	750	28.64	67
FET11355	355	1000	2355	1100	32.28	120
FET11400	400	1000	2400	1100	36.37	152
FET11450	450	1000	2450	1150	40.91	200
FET11500	500	1000	2500	1150	45.46	247
FET11560	560	1000	2560	1150	50.91	322
FET11630	630	1000	2630	1200	57.28	423
FET11710	710	1000	2710	1200	64.55	558
FET11800	800	1000	2800	1200	72.73	707
FET11900	900	1500	3900	1750	81.82	1246
FET111000	1000	1500	4000	1750	90.91	1569
FET111200	1200	1500	4200	1800	109.1	



SDR11

POLY FABRICATED EQUAL CROSS SDR41

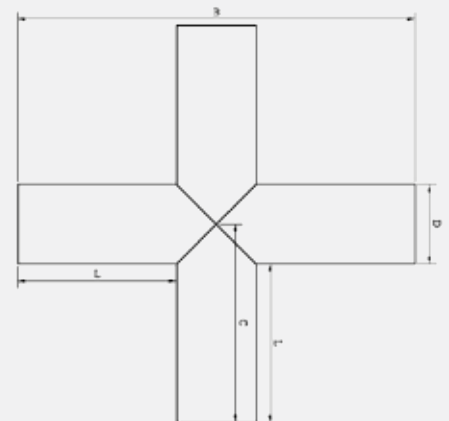
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FCR4190	90	300	690	350	5.3	2
FCR41110	110	300	710	350	2.69	2
FCR41125	125	300	725	350	3.05	2
FCR41140	140	300	740	350	3.42	3
FCR41160	160	300	760	350	3.91	4
FCR41180	180	500	1180	550	4.4	7
FCR41200	200	500	1200	550	4.88	8
FCR41225	225	500	1225	600	5.49	11
FCR41250	250	650	1550	750	6.1	16
FCR41280	280	650	1580	750	6.83	20
FCR41315	315	650	1615	750	7.69	26
FCR41355	355	1000	2355	1100	8.66	47
FCR41400	400	1000	2400	1100	9.76	59
FCR41450	450	1000	2450	1150	10.98	78
FCR41500	500	1000	2500	1150	12.2	97
FCR41560	560	1000	2560	1150	13.66	125
FCR41630	630	1000	2630	1200	15.37	164
FCR41710	710	1000	2710	1200	17.32	217
FCR41800	800	1000	2800	1200	19.52	275
FCR41900	900	1500	3900	1750	21.96	483
FCR411000	1000	1500	4000	1750	24.4	613
FCR411200	1200	1500	4200	1800	29.27	926



SDR41

POLY FABRICATED EQUAL CROSS SDR26

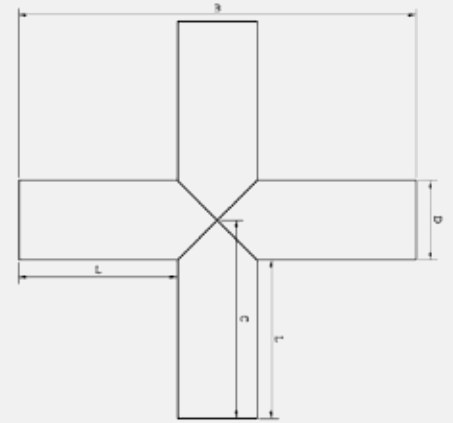
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FCR2690	90	300	690	350	5.3	2
FCR26110	110	300	710	350	4.24	3
FCR26125	125	300	725	350	4.81	3
FCR26140	140	300	740	350	5.39	4
FCR26160	160	300	760	350	6.16	5
FCR26180	180	500	1180	550	6.93	10
FCR26200	200	500	1200	550	7.7	12
FCR26225	225	500	1225	600	8.66	16
FCR26250	250	650	1550	750	9.62	24
FCR26280	280	650	1580	750	10.77	30
FCR26315	315	650	1615	750	12.12	41
FCR26355	355	1000	2355	1100	13.66	72
FCR26400	400	1000	2400	1100	15.39	91
FCR26450	450	1000	2450	1150	17.31	120
FCR26500	500	1000	2500	1150	19.24	148
FCR26560	560	1000	2560	1150	21.54	192
FCR26630	630	1000	2630	1200	24.24	253
FCR26710	710	1000	2710	1200	27.31	333
FCR26800	800	1000	2800	1200	30.77	422
FCR26900	900	1500	3900	1750	34.62	743
FCR261000	1000	1500	4000	1750	38.47	940
FCR261200	1200	1500	4200	1800	46.16	1422



SDR26

POLY FABRICATED EQUAL CROSS SDR21

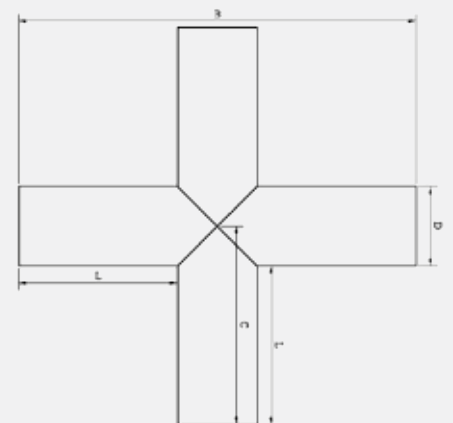
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FCR2190	90	300	690	350	5.3	2
FCR21110	110	300	710	350	5.24	3
FCR21125	125	300	725	350	5.96	4
FCR21140	140	300	740	350	6.67	5
FCR21160	160	300	760	350	7.62	7
FCR21180	180	500	1180	550	8.58	12
FCR21200	200	500	1200	550	9.53	15
FCR21225	225	500	1225	600	10.72	20
FCR21250	250	650	1550	750	11.91	30
FCR21280	280	650	1580	750	13.34	37
FCR21315	315	650	1615	750	15	49
FCR21355	355	1000	2355	1100	16.91	88
FCR21400	400	1000	2400	1100	19.05	112
FCR21450	450	1000	2450	1150	21.43	148
FCR21500	500	1000	2500	1150	23.81	182
FCR21560	560	1000	2560	1150	26.67	237
FCR21630	630	1000	2630	1200	30	311
FCR21710	710	1000	2710	1200	33.81	411
FCR21800	800	1000	2800	1200	38.1	520
FCR21900	900	1500	3900	1750	42.86	916
FCR211000	1000	1500	4000	1750	47.62	1161
FCR211200	1200	1500	4200	1800	57.15	1754



SDR21

POLY FABRICATED EQUAL CROSS SDR17

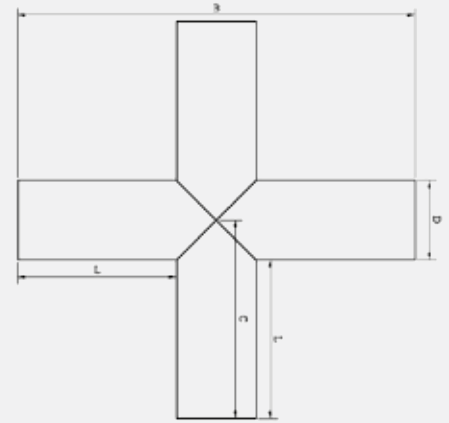
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FCR1790	90	300	690	350	5.3	2
FCR17110	110	300	710	350	6.48	4
FCR17125	125	300	725	350	7.36	5
FCR17140	140	300	740	350	8.24	6
FCR17160	160	300	760	350	9.42	8
FCR17180	180	500	1180	550	10.59	14
FCR17200	200	500	1200	550	11.77	18
FCR17225	225	500	1225	600	13.24	24
FCR17250	250	650	1550	750	14.71	36
FCR17280	280	650	1580	750	16.48	45
FCR17315	315	650	1615	750	18.53	61
FCR17355	355	1000	2355	1100	20.89	109
FCR17400	400	1000	2400	1100	23.53	137
FCR17450	450	1000	2450	1150	26.48	181
FCR17500	500	1000	2500	1150	29.42	223
FCR17560	560	1000	2560	1150	32.95	291
FCR17630	630	1000	2630	1200	37.06	382
FCR17710	710	1000	2710	1200	41.77	503
FCR17800	800	1000	2800	1200	47.06	638
FCR17900	900	1500	3900	1750	52.95	1128
FCR171000	1000	1500	4000	1750	58.83	1425
FCR171200	1200	1500	4200	1800	70.59	2060



SDR17

POLY FABRICATED EQUAL CROSS SDR13.6

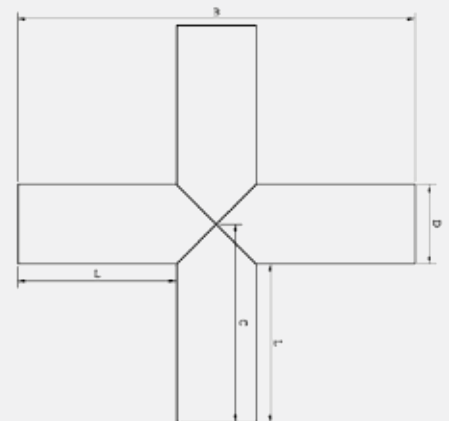
CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FCR1390	90	300	690	350	6.62	3
FCR13110	110	300	710	350	8.09	5
FCR13125	125	300	725	350	9.2	6
FCR13140	140	300	740	350	10.3	7
FCR13160	160	300	760	350	11.77	9
FCR13180	180	500	1180	550	13.24	18
FCR13200	200	500	1200	550	14.71	21
FCR13225	225	500	1225	600	16.55	29
FCR13250	250	650	1550	750	18.39	44
FCR13280	280	650	1580	750	20.59	55
FCR13315	315	650	1615	750	23.17	74
FCR13355	355	1000	2355	1100	26.11	132
FCR13400	400	1000	2400	1100	29.42	167
FCR13450	450	1000	2450	1150	33.09	221
FCR13500	500	1000	2500	1150	36.77	272
FCR13560	560	1000	2560	1150	41.18	355
FCR13630	630	1000	2630	1200	46.33	466
FCR13710	710	1000	2710	1200	52.21	614
FCR13800	800	1000	2800	1200	58.83	773
FCR13900	900	1500	3900	1750	66.18	1374
FCR131000	1000	1500	4000	1750	73.53	1716
FCR131200	1200	1500	4200	1800	88.24	2626



SDR13.6

POLY FABRICATED EQUAL CROSS SDR11

CODE	SIZE (D)	SPIGOT (L)	OVERALL LENGTH (B)	SPIGOT CENTRE (C)	THICK- NESS (T)	WEIGHT (KG)
FCR1190	90	300	690	350	8.19	4
FCR11110	110	300	710	350	10	6
FCR11125	125	300	725	350	11.37	7
FCR11140	140	300	740	350	12.73	9
FCR11160	160	300	760	350	14.55	11
FCR11180	180	500	1180	550	16.37	21
FCR11200	200	500	1200	550	18.19	26
FCR11225	225	500	1225	600	20.46	35
FCR11250	250	650	1550	750	22.73	53
FCR11280	280	650	1580	750	25.46	67
FCR11315	315	650	1615	750	28.64	89
FCR11355	355	1000	2355	1100	32.28	160
FCR11400	400	1000	2400	1100	36.37	203
FCR11450	450	1000	2450	1150	40.91	267
FCR11500	500	1000	2500	1150	45.46	329
FCR11560	560	1000	2560	1150	50.91	429
FCR11630	630	1000	2630	1200	57.28	564
FCR11710	710	1000	2710	1200	64.55	743
FCR11800	800	1000	2800	1200	72.73	942
FCR11900	900	1500	3900	1750	81.82	1661
FCR111000	1000	1500	4000	1750	90.91	2092
FCR111200	1200	1500	4200	1800	109.1	



SDR17

HDPE FITTINGS (PE100)



**Gradian
Hydrotech**

STUB END S/SP SDR11

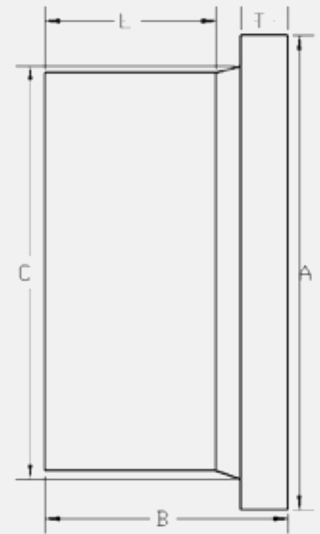
CODE	SIZE	WIDTH /	SPIGOT	OVERALL	SHOULDER	THICKNESS
		FACE				
		(A)	(L)	(B)	(C)	(T)
MSES1190	90mm	128	22	60	103	-
MSES11110	110mm	160	22	60	124	25
MSES11125	125mm	192	23	65	128	25
MSES11160	160mm	217	23	65	168	30
MSES11180	180mm	217	23	65	180	30
MSES11200	200mm	270	23.5	75	225	35
MSES11225	225mm	270	24	80	230	35
MSES11250	250mm	334	24.15	80	276.43	35
MSES11280	280mm	334	25.33	85	290	40
MSES11315	315mm	380	28.84	90	330	40
MSES11355	355mm	444	30.44	100	364.15	45
MSES11400	400mm	495	27.08	100	417.37	45
MSES11450	450mm	545	30	110	470	50
MSES11500	500mm	596	30	125	520	70
MSES11560	560mm	657	30	130	582	80
MSES11630	630mm	710	30	130	640	80
MSES11710	710mm	800	30	130	735	-
MSES11800	800mm	904	30	162	840	-
MSES11900	900mm	1000	23	170	944	-
MSES111000	1000mm	1105	30	183	1052	-

STUB END S/SP SDR17

CODE	SIZE	WIDTH /	SPIGOT	OVERALL	SHOULDER	THICKNESS
		FACE				
		(A)	(L)	(B)	(C)	(T)
MSES1790	90mm	128	22	60	103	20
MSES17110	110mm	160	22	60	124	20
MSES17125	125mm	192	23	65	128	25
MSES17160	160mm	217	23	65	168	25
MSES17180	180mm	217	23	65	180	25
MSES17200	200mm	270	23.5	75	225	30
MSES17225	225mm	270	24	80	230	30
MSES17250	250mm	334	24.15	80	276.43	35
MSES17280	280mm	334	25.33	85	290	35
MSES17315	315mm	380	28.84	90	330	40
MSES17355	355mm	444	30.44	100	364.15	40
MSES17400	400mm	495	27.08	100	417.37	40
MSES17450	450mm	545	30	110	470	60
MSES17500	500mm	596	30	125	520	60
MSES17560	560mm	657	30	130	582	60
MSES17630	630mm	710	30	130	640	60
MSES17710	710mm	800	30	130	735	60
MSES17800	800mm	904	30	162	840	92
MSES17900	900mm	1000	23	170	944	93
MSES171000	1000mm	1105	30	183	1052	113

STUB END L/SP SDR17

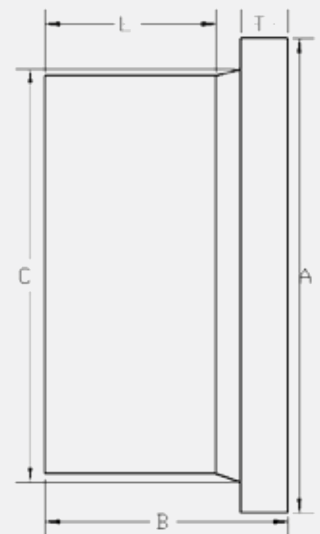
CODE	SIZE	WIDTH /	SPIGOT	OVERALL	SHOULDER	THICKNESS
		FACE				
		(A)	(L)	(B)	(C)	(T)
MSEL1790	90mm	128	83	121	103	20
MSEL17110	110mm	160	88	126	124	20
MSEL17125	125mm	192	95	137	128	25
MSEL17160	160mm	217	105	147	168	25
MSEL17180	180mm	217	125	167	180	25
MSEL17200	200mm	270	123	174.5	225	30
MSEL17225	225mm	270	123	179	230	30
MSEL17250	250mm	334	128	183.85	276.43	35
MSEL17280	280mm	334	140	199.67	290	35
MSEL17315	315mm	380	135	196.16	330	40
MSEL17355	355mm	444	145	214.56	364.15	40
MSEL17400	400mm	495	170	242.92	417.37	40
MSEL17450	450mm	545	200	280	470	60
MSEL17500	500mm	596	215	310	520	60
MSEL17560	560mm	657	230	330	582	60
MSEL17630	630mm	710	250	350	640	60
MSEL17710	710mm	800	255	355	735	60
MSEL17800	800mm	920	260	360	825	60



SDR17

STUB END L/SP SDR11

CODE	SIZE	WIDTH /	SPIGOT	OVERALL	SHOULDER	THICKNESS
		FACE				
		(A)	(L)	(B)	(C)	(T)
MSEL1140	40mm	78	50	78	50	12
MSEL1150	50mm	94	56	88	60	14
MSEL1163	63mm	102	58	91	75	12
MSEL1175	75mm	122	65	98	89	11
MSEL1190	90mm	128	83	121	103	20
MSEL11110	110mm	160	88	126	124	20
MSEL11125	125mm	192	95	137	128	25
MSEL11140	160mm	217	105	147	168	25
MSEL11160	180mm	217	125	167	180	25
MSEL11180	200mm	270	123	174.5	225	30
MSEL11200	225mm	270	123	179	230	30
MSEL11225	250mm	334	128	183.85	276.43	35
MSEL11250	280mm	334	140	199.67	290	35
MSEL11280	315mm	380	135	196.16	330	40
MSEL11315	355mm	444	145	214.56	364.15	40
MSEL11355	400mm	495	170	242.92	417.37	40
MSEL11450	450mm	545	200	280	470	60
MSEL11500	500mm	596	215	310	520	60
MSEL11560	560mm	657	230	330	582	60
MSEL11630	630mm	710	250	350	640	60
MSEL11710	710mm	800	255	355	735	60
MSEL11800	800mm	920	260	360	825	60



SDR11

VALVE SPACER SDR11

CODE	SIZE	WIDTH / FACE	THICKNESS	SPECIAL 1	SPECIAL 2
		(A)	(T)	(S)	(S1)
FLVS11110	110mm	158	14	20	90
FLVS11125	125mm	190	25	25	102
FLVS11140	140mm	188	25	20	114.6
FLVS11160	160mm	212	25	25	130.8
FLVS11200	200mm	268	40	30	163.6
FLVS11225	225mm	268	25	25	184
FLVS11250	250mm	334	50	30	203
FLVS11280	280mm	334	30	30	228
FLVS11315	315mm	384	60	30	257.8
FLVS11355	355mm	430	60	30	290.6
FLVS11400	400mm	482	80	30	327.4
FLVS11450	450mm	545	100	25	368.2
FLVS11500	500mm	585	100	25	409.2
FLVS11630	630mm	708	100	20	513

VALVE SPACER SDR17

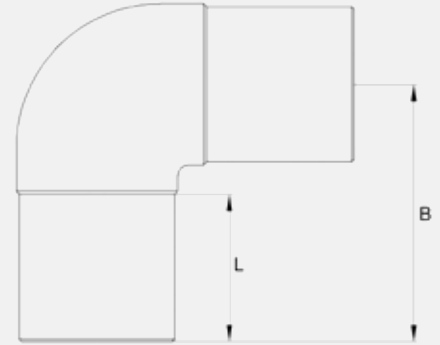
CODE	SIZE	WIDTH / FACE	THICKNESS	SPECIAL 1	SPECIAL 2
		(A)	(T)	(S)	(S1)
FLVS17125	125mm	192	25	20	100
FLVS17160	160mm	213	25	20	141
FLVS17200	200mm	270	25	30	176
FLVS17250	250mm	334	30	30	220
FLVS17280	280mm	334	30	20	246
FLVS17315	315mm	380	30	30	277
FLVS17355	355mm	444	40	30	312
FLVS17400	400mm	495	40	30	352
FLVS17450	450mm	545	60	30	396
FLVS17500	500mm	602	50	25	440

VALVE SPACER SDR26

CODE	SIZE	WIDTH / FACE	THICKNESS	SPECIAL 1	SPECIAL 2
		(A)	(T)	(S)	(S1)
FLVS26250	250mm	334	30	25	231
FLVS26355	355mm	444	40	25	328
FLVS26450	450mm	545	40	25	416
FLVS26630	630mm	708	55	20	580

ELBOW L/SP 90DEG SDR11

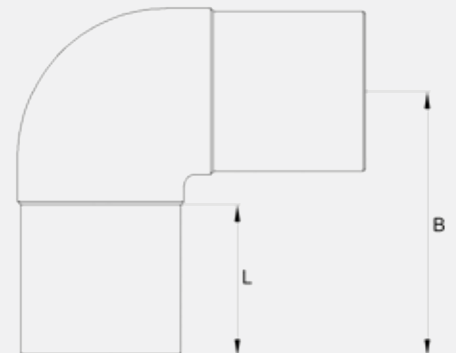
CODE	SIZE	SPIGOT	OVERALL LENGTH	WEIGHT
		(L)	(B)	(KG)
MEL119040	40mm	50	108	-
MEL119050	50mm	56	125	-
MEL119063	63mm	64	147	-
MEL119075	75mm	66	169	-
MEL119090	90mm	81	178	-
MEL1190110	110mm	82	201	-
MEL1190125	125mm	84	226	-
MEL1190140	140mm	90	267	-
MEL1190160	160mm	99	272	-
MEL1190180	180mm	94	290	-
MEL1190200	200mm	113	360	-
MEL1190225	225mm	114	364	-
MEL1190250	250mm	130	380	-
MEL1190280	280mm	140	450	-
MEL1190315	315mm	154	498	-
MEL1190355	355mm	166	554	-
MEL1190400	400mm	182	583	-
MEL1190450	450mm	-	-	42.9
MEL1190500	500mm	-	-	55.8
MEL1190560	560mm	-	-	73.5



SDR11

ELBOW L/SP 90DEG SDR17

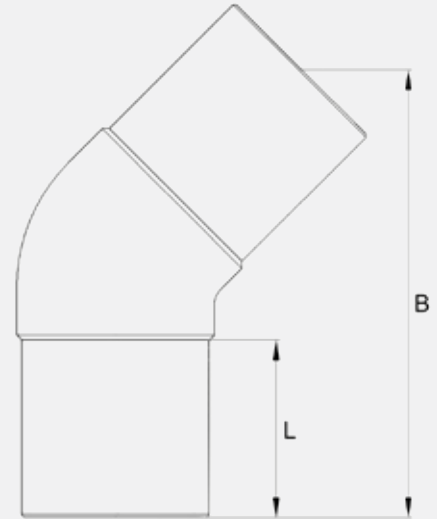
CODE	SIZE	SPIGOT	OVERALL LENGTH	WEIGHT
		(L)	(B)	(KG)
MEL179040	40mm	50	108	-
MEL179050	50mm	56	125	-
MEL179063	63mm	64	147	-
MEL179075	75mm	66	169	-
MEL179090	90mm	81	178	-
MEL1790110	110mm	82	201	-
MEL1790125	125mm	84	226	-
MEL1790140	140mm	90	267	-
MEL1790160	160mm	99	272	-
MEL1790180	180mm	94	290	-
MEL1790200	200mm	113	360	-
MEL1790225	225mm	114	364	-
MEL1790250	250mm	130	380	-
MEL1790280	280mm	140	450	-
MEL1790315	315mm	154	498	-
MEL1790355	355mm	166	554	-
MEL1790400	400mm	182	583	-
MEL1790450	450mm	-	-	31.9
MEL1790500	500mm	-	-	41.5
MEL1790560	560mm	-	-	54.1
MEL1790630	630mm	-	-	90.6



SDR17

ELBOW L/SP 45DEG SDR11

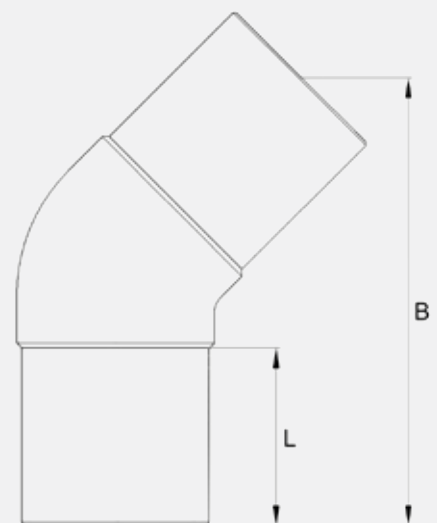
CODE	SIZE	SPIGOT		OVERALL LENGTH	WEIGHT
		(L)	(B)		
MEL114540	40mm	49	99	-	-
MEL114550	50mm	54	104	-	-
MEL114563	63mm	61	122	-	-
MEL114575	75mm	69	142	-	-
MEL114590	90mm	76	167	-	-
MEL1145110	110mm	82	183	-	-
MEL1145125	125mm	85	200	-	-
MEL1145140	140mm	96	230	-	-
MEL1145160	160mm	99	240	-	-
MEL1145180	180mm	110	315	-	-
MEL1145200	200mm	119	359	-	-
MEL1145225	225mm	124	399	-	-
MEL1145250	250mm	132	350	-	-
MEL1145280	280mm	140	404	-	-
MEL1145315	315mm	143	434	-	-
MEL1145355	355mm	145	486	-	-
MEL1145400	400mm	49	99	-	-
MEL1145450	450mm	-	-	-	27.7
MEL1145500	500mm	-	-	-	35.5
MEL1145560	560mm	-	-	-	42.1
MEL1145630	630mm	-	-	-	67.9



SDR11

ELBOW L/SP 45DEG SDR17

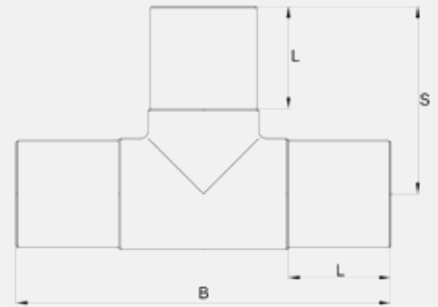
CODE	SIZE	SPIGOT		OVERALL LENGTH	WEIGHT
		(L)	(B)		
MEL174540	40mm	49	99	-	-
MEL174550	50mm	54	104	-	-
MEL174563	63mm	61	122	-	-
MEL174575	75mm	69	142	-	-
MEL174590	90mm	76	167	-	-
MEL1745110	110mm	82	183	-	-
MEL1745125	125mm	85	200	-	-
MEL1745140	140mm	96	230	-	-
MEL1745160	160mm	99	240	-	-
MEL1745180	180mm	110	315	-	-
MEL1745200	200mm	119	359	-	-
MEL1745225	225mm	124	399	-	-
MEL1745250	250mm	132	350	-	-
MEL1745280	280mm	140	404	-	-
MEL1745315	315mm	143	434	-	-
MEL1745355	355mm	145	486	-	-
MEL1745400	400mm	49	99	-	-
MEL1745450	450mm	-	-	-	20
MEL1745500	500mm	-	-	-	25.6
MEL1745560	560mm	-	-	-	29.3
MEL1745630	630mm	-	-	-	51.3



SDR17

EQUAL TEE L/SP SDR11

CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1	WEIGHT
		(L)	(B)	(S)	(KG)
METL1140	40mm	49	168	87	-
METL1150	50mm	55	200	99	-
METL1163	63mm	64	221	114	-
METL1175	75mm	72	222	112	-
METL1190	90mm	70	262	135	-
METL11110	110mm	83	290	149	-
METL11125	125mm	84	325	160	-
METL11140	140mm	90	335	180	-
METL11160	160mm	100	350	191	-
METL11180	180mm	100	400	200	-
METL11200	200mm	112	449	216	-
METL11225	225mm	126	507	259	-
METL11250	250mm	130	477	249	-
METL11280	280mm	110	490	259	-
METL11315	315mm	78	497	272	-
METL11355	355mm	174	403	374	-
METL11400	400mm	80	595	344	-
METL11450	450mm	-	-	-	54.5
METL11500	500mm	-	-	-	79.9
METL11560	560mm	-	-	-	94.2
METL11630	630mm	-	-	-	144.9



SDR11

EQUAL TEE L/SP SDR17

CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1	WEIGHT
		(L)	(B)	(S)	(KG)
METL1763	63mm	64	221	114	-
METL1775	75mm	72	222	112	-
METL1790	90mm	70	262	135	-
METL17110	110mm	83	290	149	-
METL17125	125mm	84	325	160	-
METL17140	140mm	90	335	180	-
METL17160	160mm	100	350	191	-
METL17180	180mm	100	400	200	-
METL17200	200mm	112	449	216	-
METL17225	225mm	126	507	259	-
METL17250	250mm	130	477	249	-
METL17280	280mm	110	490	259	-
METL17315	315mm	78	497	272	-
METL17355	355mm	174	403	374	-
METL17400	400mm	80	595	344	-
METL17450	450mm	-	-	-	39.4
METL17500	500mm	-	-	-	58.2
METL17560	560mm	-	-	-	67.5
METL17630	630mm	-	-	-	104.2



SDR17

UNEQUAL TEE L/SP SDR11

CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1	SPECIAL 2	WEIGHT
		(L)	(B)	(S)	(S1)	(KG)
MUTL11504050	50/40/50MM	55	176	84	51	
MUTL11633263	63/32/63MM	54	177	92	54	
MUTL11634063	63/40/63MM	56	180	89	52	
MUTL11635063	63/50/63MM	63	220	115	63	
MUTL11754075	75/40/75MM	70	213	107	67	
MUTL11755075	75/50/75MM	72	222	112	78	
MUTL11756375	75/63/75MM	69	220	109	74	
MUTL11904090	90/40/90MM	70	227	118	59	
MUTL11905090	90/50/90MM	71	229	121	65	
MUTL11906390	90/63/90MM	72	230	121	69	
MUTL11907590	90/75/90MM	80	286	139	71	
MUTL1111040110	110/40/110MM	77	243	132	59	
MUTL1111050110	110/50/110MM	79	245	135	64	
MUTL1111063110	110/63/110MM	79	243	132	70	
MUTL1111075110	110/75/110MM	80	290	154	77	
MUTL1111090110	110/90/110MM	80	290	154	77	
MUTL1112590125	125/90/125MM	80	250	155	60	
MUTL11125110125	125/110/125MM	80	250	155	60	
MUTL11140110140	140/110/140MM	80	260	160	60	
MUTL1116063160	160/63/160MM	84	271	157	57	
MUTL1116075160	160/75/160MM	84	271	157	57	
MUTL1116090160	160/90/160MM	87	329	179	83	
MUTL11160110160	160/110/160MM	87	328	178	82	
MUTL11160125160	160/125/160MM	87	328	178	82	
MUTL11180110180	180/110/180MM	87	388	185	84	
MUTL11180160180	180/160/180MM	87	388	185	84	
MUTL1120063200	200/63/200MM	102	436	209	84	
MUTL1120090200	200/90/200MM	112	330	202	80	
MUTL11200110200	200/110/200MM	112	330	201	80	
MUTL11200160200	200/160/200MM	119	413	226	97	
MUTL11225110225	225/110/225MM	121	458	241	100	
MUTL11225160225	225/160/225MM	121	458	241	100	
MUTL1125090250	250/90/250MM	121	458	241	100	
MUTL11250110250	250/110/250MM	129	386	225	82	
MUTL11250160250	250/160/250MM	129	386	225	82	
MUTL11315110315	315/110/315MM	154	576	274	104	
MUTL11315160315	315/160/315MM	154	576	274	104	
MUTL11315200315	315/200/315MM	148	550	283	112	
MUTL11315250315	315/250/315MM	149	567	270	98	
MUTL11355200355	355/200/355MM	150	600	280	100	
MUTL11355250355	355/250/355MM	165	625	367	166	
MUTL11400200400	400/200/400MM	173	590	374	140	
MUTL11400250400	400/250/400MM	153	560	361	137	
MUTL11400315400	400/315/400MM	143	595	368	34	
MUTL11450315450	450/315/450MM					43.1
MUTL11450200450	450/200/450MM					34.7
MUTL11500355500	500/355/500MM					61.35
MUTL11500315500	500/315/500MM					53.2
MUTL11500250500	500/250/500MM					51
MUTL11500200500	500/200/500MM					41.6
MUTL11500160500	500/160/500MM					42.5
MUTL11560315560	560/315/500MM					64.4
MUTL11560200560	560/200/500MM					50.7
MUTL11630400630	630/400/530MM					100.5
MUTL11630315630	630/315/630MM					89.1
MUTL11630250630	630/250/630MM					77
MUTL11630200630	630/200/630MM					69.8



SDR11

UNEQUAL TEE L/SP SDR17

CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1	SPECIAL 2	WEIGHT (KG)
		(L)	(B)	(S)	(S1)	
MUTL17633263	63/32/63mm	54	177	92	54	
MUTL17634063	63/40/63mm	56	180	89	52	
MUTL17635063	63/50/63mm	63	220	115	63	
MUTL17754075	75/40/75mm	70	213	107	67	
MUTL17755075	75/50/75mm	72	222	112	78	
MUTL17756375	75/63/75mm	69	220	109	74	
MUTL17904090	90/40/90mm	70	227	118	59	
MUTL17905090	90/50/90mm	71	229	121	65	
MUTL17906390	90/63/90mm	72	230	121	69	
MUTL17907590	90/75/90mm	80	286	139	71	
MUTL1711040110	110/40/110mm	77	243	132	59	
MUTL1711050110	110/50/110mm	79	245	135	64	
MUTL1711063110	110/63/110mm	79	243	132	70	
MUTL1711075110	110/75/110mm	80	290	154	77	
MUTL1711090110	110/90/110mm	80	290	154	77	
MUTL1712590125	125/90/125mm	80	250	155	60	
MUTL17125110125	125/110/125mm	80	250	155	60	
MUTL17140110140	140/110/140mm	80	260	160	60	
MUTL1716063160	160/63/160mm	84	271	157	57	
MUTL1716075160	160/75/160mm	84	271	157	57	
MUTL1716090160	160/90/160mm	87	329	179	83	
MUTL17160110160	160/110/160mm	87	328	178	82	
MUTL17160125160	160/125/160mm	87	328	178	82	
MUTL17180110180	180/110/180mm	87	388	185	84	
MUTL17180160180	180/160/180mm	87	388	185	84	
MUTL1720063200	200/63/200mm	102	436	209	84	
MUTL1720090200	200/90/200mm	112	330	202	80	
MUTL17200110200	200/110/200mm	112	330	201	80	
MUTL17200160200	200/160/200mm	119	413	226	97	
MUTL17225110225	225/110/225mm	121	458	241	100	
MUTL17225160225	225/160/225mm	121	458	241	100	
MUTL1725090250	250/90/250mm	121	458	241	100	
MUTL17250110250	250/110/250mm	129	386	225	82	
MUTL17250160250	250/160/250mm	129	386	225	82	
MUTL1731590315	315/90/315mm	154	576	274	104	
MUTL17315110315	315/110/315mm	154	576	274	104	
MUTL17315160315	315/160/315mm	154	576	274	104	
MUTL17315200315	315/200/315mm	148	550	283	112	
MUTL17315250315	315/250/315mm	149	567	270	98	
MUTL17355200355	355/200/355mm	150	600	280	100	
MUTL17355250355	355/250/355mm	165	625	367	166	
MUTL17400200400	400/200/400mm	173	590	374	140	
MUTL17400250400	400/250/400mm	153	560	361	137	
MUTL17400315400	400/315/400mm	143	595	368	34	
MUTL17450315450						31.3
MUTL17450200450						25.4
MUTL17500355500						44.39
MUTL17500315500						38.8
MUTL17500250500						37.1
MUTL17500200500						30.7
MUTL17500160500						30.8
MUTL17560315500						64.7
MUTL17560200500						37.2
MUTL17630400530						72.39
MUTL17630315630						67.9
MUTL17630250630						55.4
MUTL17630200630						50.1



SDR17

EQUAL CROSS L/SP SDR11

CODE	SIZE	WEIGHT (KG)
MCRL11450	450mm	60.86
MCRL11500	500mm	90.1
MCRL11560	560mm	102.2
MCRL11630	630mm	160.8

UNEQUAL CROSS L/SP SDR11

CODE	SIZE	WEIGHT (KG)
	450/315/450MM	45.7
	450/200/450MM	36.3
	500/355/500MM	64.5
	500/315/500MM	55.6
	500/250/500MM	52.3
	500/200/500MM	43.2
	500/160/500MM	43
	560/315/560MM	66.3
	560/200/560MM	52
	630/400/630MM	104.3
	630/315/630MM	90.3
	630/250/630MM	78.1
	630/200/630MM	70.7

EQUAL CROSS L/SP SDR17

CODE	SIZE	WEIGHT (KG)
MCRL17450	450mm	43.5
MCRL17500	500mm	65
MCRL17560	560mm	72.1
MCRL17630	630mm	113.7

UNEQUAL CROSS L/SP SDR17

CODE	SIZE	WEIGHT (KG)
	450/315/450mm	33
	450/200/450mm	26.7
	500/355/500mm	46
	500/315/500mm	40.3
	500/250/500mm	37.8
	500/200/500mm	31.6
	500/160/500mm	31.1
	560/315/560mm	47.6
	560/200/560mm	39
	630/400/630mm	74.2
	630/315/630mm	68.2
	630/250/630mm	55.8
	630/200/630mm	50.5

END CAP S/SP SDR11

CODE	SIZE	SPIGOT		OVERALL LENGTH	
		(L)	(B)	(L)	(B)
MECS1120	20mm	28	35		
MECS1125	25mm	30	38		
MECS1132	32mm	39	47		
MECS1140	40mm	45	54		
MECS1150	50mm	54	63		
MECS1163	63mm	54	67		
MECS1175	75mm	54	72		
MECS1190	90mm	70	87		
MECS11110	110mm	78	99		
MECS11125	125mm	84	114		
MECS11140	140mm	94	126		
MECS11160	160mm	94	125		
MECS11180	180mm	107	146		
MECS11200	200mm	97	129		
MECS11225	225mm	106	142		
MECS11250	250mm	102	132		
MECS11280	280mm	103	138		
MECS11315	315mm	105	142		
MECS11355	355mm	102	145		
MECS11400	400mm	28	160		
MECS11450	450mm	31	160		
MECS11500	500mm	35	160		
MECS11560	560mm	39	160		
MECS11630	630mm	47	160		
MECS11710	800mm	47	180		
MECS11800	1000mm	59	200		



SDR11

END CAP S/SP SDR17

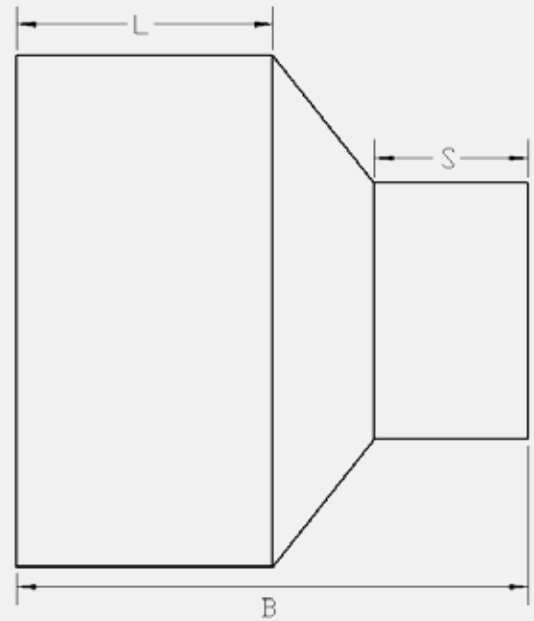
CODE	SIZE	SPIGOT		OVERALL LENGTH	
		(L)	(B)	(L)	(B)
MECS1763	63MM	54	67		
MECS1775	75MM	54	72		
MECS1790	90MM	70	87		
MECS17110	110MM	78	99		
MECS17125	125MM	84	114		
MECS17140	140MM	94	126		
MECS17160	160MM	94	125		
MECS17180	180MM	107	146		
MECS17200	200MM	97	129		
MECS17225	225MM	106	142		
MECS17250	250MM	102	132		
MECS17280	280MM	103	138		
MECS17315	315MM	105	142		
MECS17355	355MM	102	145		
MECS17400	400MM	28	160		
MECS17450	450MM	31	160		
MECS17500	500MM	35	160		
MECS17560	560MM	39	160		
MECS17630	630MM	47	160		
MECS17710	710MM				
MECS17800	800MM	47	180		
MECS17900	900MM				
MECS171000	1000MM	59	200		



SDR17

CONCENTRIC REDUCER L/SP SDR11

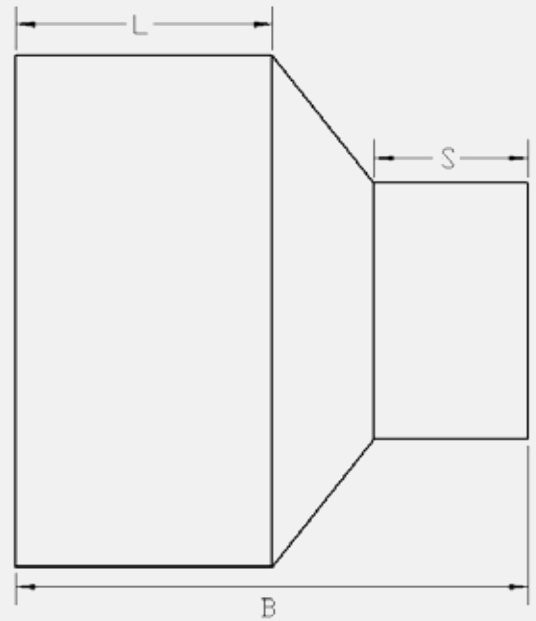
CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1
		(L)	(B)	(S)
MRCL112520	25/20MM	36	70	32
MRCL113225	32/25MM	38	80	38
MRCL114032	40/32MM	44	86	40
MRCL115040	50/40MM	50	102	46
MRCL116332	63/32MM	61	130	43
MRCL116340	63/40MM	60	123	44
MRCL116350	63/50MM	49	109	51
MRCL117550	75/50MM	80	184	55
MRCL117563	75/63MM	80	184	55
MRCL119050	90/50MM	81	184	57
MRCL119063	90/63MM	64	136	46
MRCL119075	90/75MM	67	136	59
MRCL1111050	110/50MM	74	174	49
MRCL1111063	110/63MM	74	174	49
MRCL1111075	110/75MM	75	156	65
MRCL1111090	110/90MM	76	156	66
MRCL1112563	125/63MM	103	195	72
MRCL1112575	125/75MM	103	195	70
MRCL1112590	125/90MM	105	198	79
MRCL11125110	125/110MM	92	213	82
MRCL1116063	160/63MM	102	210	61
MRCL1116090	160/90MM	107	210	71
MRCL11160110	160/110MM	98	203	77
MRCL11160125	160/125MM	112	218	87
MRCL11160140	160/140MM	110	218	92
MRCL11180160	180/160MM	112	235	98
MRCL11200110	200/110MM	117	284	114
MRCL11200125	200/125MM	128	265	90
MRCL11200160	200/160MM	125	291	96
MRCL11200180	200/180MM	125	285	120
MRCL11225110	225/110MM	136	285	115
MRCL11225125	225/160MM	136	285	120
MRCL11225140	225/200MM	136	285	120
MRCL11250160	250/160MM	134	286	101
MRCL11250200	250/200MM	138	287	115
MRCL11250225	250/225MM	142	315	129
MRCL11280200	280/200MM			
MRCL11280225	280/225MM			
MRCL11280250	280/250MM			
MRCL11315200	315/200MM	150	312	120
MRCL11315225	315/225MM	150	312	120
MRCL11315250	315/250MM	150	312	130
MRCL11315280	315/280MM	150	315	145
MRCL11355110	355/110MM			
MRCL11355160	355/160MM			
MRCL11355200	355/200MM			
MRCL11355225	355/225MM			
MRCL11355315	355/315MM			
MRCL11400200	400/200MM			
MRCL11400250	400/250MM			
MRCL11400315	400/315MM			



SDR11

CONCENTRIC REDUCER L/SP SDR17

CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1
		9L)	(B)	(S)
MRCL177550	75/50MM	80	184	55
MRCL177563	75/63MM	80	184	55
MRCL179050	90/50MM	81	184	57
MRCL179063	90/63MM	64	136	46
MRCL179075	90/75MM	67	136	59
MRCL1711050	110/50MM	74	174	49
MRCL1711063	110/63MM	74	174	49
MRCL1711075	110/75MM	75	156	65
MRCL1711090	110/90MM	76	156	66
MRCL1712563	125/63MM	103	195	72
MRCL1712575	125/75MM	103	195	70
MRCL1712590	125/90MM	105	198	79
MRCL17125110	125/110MM	92	213	82
MRCL1716063	160/63MM	102	210	61
MRCL1716090	160/90MM	107	210	71
MRCL17160110	160/110MM	98	203	77
MRCL17160125	160/125MM	112	218	87
MRCL17160140	160/140MM	110	218	92
MRCL17180160	180/160MM	112	235	98
MRCL17200110	200/110MM	117	284	114
MRCL17200125	200/125MM	128	265	90
MRCL17200160	200/160MM	125	291	96
MRCL17200180	200/180MM	125	285	120
MRCL17225110	225/110MM	136	285	115
MRCL17225160	225/160MM	136	285	120
MRCL17225200	225/200MM	136	285	120
MRCL17250160	250/160MM	134	286	101
MRCL17250200	250/200MM	138	287	115
MRCL17250225	250/225MM	142	315	129
MRCL17280200	280/200MM			
MRCL17280225	280/225MM			
MRCL17280250	280/250MM			
MRCL17315200	315/200MM	150	312	120
MRCL17315225	315/225MM	150	312	120
MRCL17315250	315/250MM	150	312	130
MRCL17315280	315/280MM	150	315	145



SDR 17

CONCENTRIC REDUCER S/SP SDR 11

CODE	SIZE	CODE	SIZE	SPIGOT (L)	OVERALL LENGTH (B)	SPECIAL 1 (S)	SPECIAL 2 (S1)
MRCS1112575	125/75	MRCS11400355	400/355	50	70	10	Type A
MRCS1112590	125/90	MRCS11400315	400/315	50	90	10	Type A
MRCS1114075	140/75	MRCS11400280	400/280	50	105	10	Type A
MRCS1114090	140/90	MRCS11400250	400/250	50	120	10	Type A
MRCS11140110	140/110	MRCS11400225	400/225	50	130	10	Type A
MRCS11140125	140/125	MRCS11400200	400/200	50	140	10	Type A
MRCS11160140	160/140	MRCS11400180	400/180	50	150	10	Type A
MRCS11180110	180/110	MRCS11400160	400/160	50	160	10	Type A
MRCS11180125	180/125	MRCS11450400	450/400	50	70	10	Type A
MRCS11180140	180/140	MRCS11450355	450/355	50	90	10	Type A
MRCS11180160	180/160	MRCS11450315	450/315	50	100	10	Type A
MRCS11225125	225/125	MRCS11450280	450/280	50	120	10	Type A
MRCS11225140	225/140	MRCS11450250	450/250	50	130	10	Type A
MRCS11225160	225/160	MRCS11450225	450/225	50	140	10	Type A
MRCS11225180	225/180	MRCS11450200	450/200	50	150	10	Type A
MRCS11225200	225/200	MRCS11450180	450/180	50	160	10	Type A
MRCS11250180	250/180	MRCS11500450	500/450	48	65	10	Type A
MRCS11250200	250/200	MRCS11500400	500/400	48	82	10	Type A
MRCS11250225	250/225	MRCS11500355	500/355	48	95	10	Type A
MRCS11280160	280/225	MRCS11500315	500/315	48	110	10	Type A
MRCS11280180	280/180	MRCS11500280	500/280	48	120	10	Type A
MRCS11280200	280/200	MRCS11500250	500/250	48	130	10	Type A
MRCS11280225	280/225	MRCS11500225	500/225	48	140	10	Type A
MRCS11280250	280/250	MRCS11500200	500/200	48	160	10	Type A
MRCS11315225	315/225	MRCS11560500	560/500	60	80	10	Type A
MRCS11315280	315/280	MRCS11560450	560/450	60	100	18	Type A
MRCS11355225	355/225	MRCS11560400	560/400	60	115	20	Type A
MRCS11355280	355/280	MRCS11560355	560/355	60	130	20	Type A
		MRCS11560315	560/315	60	145	20	Type A
		MRCS11560280	560/280	60	160	15	Type A
		MRCS11630560	630/560	60	80	10	Type A
		MRCS11630500	630/500	60	100	10	Type A
		MRCS11630450	630/450	60	115	10	Type A
		MRCS11630400	630/400	60	125	20	Type A
		MRCS11630355	630/355	60	140	20	Type A
		MRCS11630315	630/315	60	150	20	Type A
		MRCS11630280	630/280	60	160	15	Type A
		MRCS11710630	710/630	65	85	10	Type A
		MRCS11710560	710/560	65	100	10	Type A
		MRCS11710500	710/500	65	110	10	Type A
		MRCS11710450	710/450	65	120	10	Type A
		MRCS11710400	710/400	65	130	10	Type A
		MRCS11710355	710/355	65	145	10	Type A
		MRCS11800710	800/710	75	96	10	Type A
		MRCS11800630	800/630	75	115	10	Type A
		MRCS11800560	800/560	75	130	10	Type A
		MRCS11800500	800/500	75	145	10	Type A
		MRCS11800450	800/450	75	155	10	Type A
		MRCS11800400	800/400	75	165	10	Type A
		MRCS11800355	800/355	75	180	10	Type A

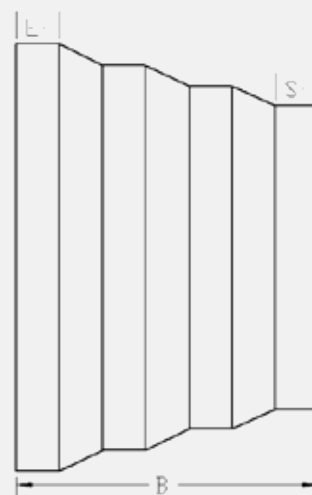
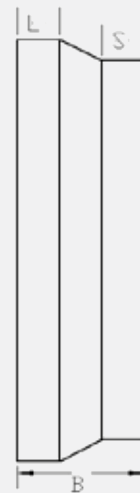
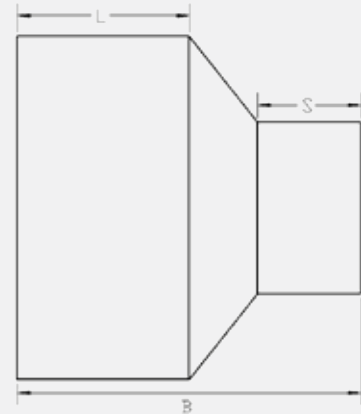
Total Length around 100mm, tubular length for each side between 20mm/40mm, ok for butt fusion.



SDR11

CONCENTRIC REDUCER S/SP SDR 17

CODE	SIZE	SPIGOT	OVERALL LENGTH	SPECIAL 1	SPECIAL 2
		(L)	(B)	(S)	(S1)
MRCS17355110	355/110	-	-	-	-
MRCS17355160	355/160	-	-	-	-
MRCS17355250	355/250	-	-	-	-
MRCS17355280	355/280	-	-	-	-
MRCS17355315	355/315	-	-	-	-
MRCS17400200	400/200	-	-	-	-
MRCS17400250	400/250	256	57	127	-
MRCS17400315	400/315	174	68	69	-
MRCS17400355	400/355	90	213	83	-
MRCS17450400	450/400	35	105	35	Type B
MRCS17500400	500/400	43	185	20	Type B
MRCS17500450	500/450	35	105	35	Type B
MRCS17560400	560/400	45	190	28	Type B
MRCS17560450	560/450	35	175	35	Type B
MRCS17560500	560/500	35	105	35	Type B
MRCS17630400	630/400	35	315	35	Type B
MRCS17630450	630/450	25	240	30	Type B
MRCS17630500	630/500	35	105	35	Type B
MRCS17630560	630/560	35	105	35	Type B
MRCS17710630	710/630	46	131	52	Type B
MRCS17800630	800/630	49	221	47	Type B
MRCS17800710	800/710	54	125	40	Type B
MRCS17900800	900/800	65	139	47	Type B
MRCS171000800	1000/800	55	215	50	Type B
MRCS171000900	1000/900	55	137	40	Type B
MRCS171200800	1200/800	290	100	30	Type A
MRCS171200900	1200/900	260	100	30	Type A
MRCS1712001000	1200/1000	195	95	30	Type A



SDR17

ELECTROFUSION FITTINGS



**Gradian
Hydrotech**

ELECTROFUSION COUPLER SDR11

CODE	SIZE	WIDTH /	OVERALL	WEIGHT
		FACE	LENGTH	
		(A)	(B)	(KG)
EFC1120	20mm	34	80	0.052
EFC1125	25mm	39	80	0.055
EFC1132	32mm	43	80	0.065
EFC1140	40mm	53	86	0.075
EFC1150	50mm	68	98	0.15
EFC1163	63mm	76	96	0.23
EFC1175	75mm	90	110	0.35
EFC1190	90mm	108	116	0.38
EFC11110	110mm	134	140	0.64
EFC1125	125mm	150	146	1.14
EFC1140	140mm	170	160	1.45
EFC1160	160mm	194	175	1.92
EFC1180	180mm	227	210	2.9
EFC11200	200mm	247	205	2.7
EFC11225	225mm	273	220	3.5
EFC11250	250mm	307	216	5.04
EFC11280	280mm	362	247	6.07
EFC11315	315mm	384	234	9.1
EFC11355	355mm	428	295	11.36
EFC11400	400mm	473	295	15.36
EFC11450	450mm	550	340	28
EFC11500	500mm	615	360	37.8
EFC11560	560mm	685	380	48.83
EFC11630	630mm	770	420	61
EFC11710	710mm	850	430	73.7
EFC11800	800mm	960	440	92.3

ELECTROFUSION COUPLER SDR17

CODE	SIZE	WIDTH /	OVERALL	WEIGHT
		FACE	LENGTH	
		(A)	(B)	(KG)
EFC17450	450mm	510	340	17.64
EFC17500	500mm	570	360	22.26
EFC17560	560mm	630	380	26
EFC17630	630mm	710	420	38.8
EFC17710	710mm	800	430	45.8
EFC17800	800mm	910	440	65
EFC17900	900mm	1022	450	83
EFC171000	1000mm	1135	500	122
EFC171100	1100mm	1240	500	137
EFC171200	1200mm	1355	505	182

ELECTROFUSION COUPLER SDR21

CODE	SIZE	WIDTH /	OVERALL	WEIGHT
		FACE	LENGTH	
		(A)	(B)	(KG)
EFC21900	900mm	1000	450	80
EFC211000	1000mm	1110	500	92.2
EFC211100	1100mm	1220	500	107
EFC211200	1200mm	1330	500	125.2
EFC211400	1400mm	1550	500	168.6

ELECTROFUSION REDUCER SDR11

CODE	SIZE	WIDTH /	OVERALL	WEIGHT
		FACE	LENGTH	
		(A)	(B)	(KG)
EFCR113225	32/25mm	42	88	0.074
EFCR114032	40/32mm	53	98	0.08
EFCR115032	50/32mm	67	110	0.132
EFCR115040	50/40mm	66	109	0.14
EFCR116332	63/32mm	82	124	0.195
EFCR116340	63/40mm	83	124	0.19
EFCR116350	63/50mm	82	124	0.225
EFCR117563	75/63mm	95	143	0.34
EFCR119063	90/63mm	114	158	0.465
EFCR119075	90/75mm	114	158	0.55
EFCR1111063	110/63mm	138	156	0.685
EFCR1111075	110/75mm	138	160	0.9
EFCR1111090	110/90mm	138	178	0.8
EFCR1112590	125/90mm	158	197	1.07
EFCR1116090	160/90mm	198	215	1.56
EFCR11160110	160/110mm	198	215	1.82

ELECTROFUSION TEE EQUAL SDR11

CODE	SIZE	WIDTH / FACE		OVERALL LENGTH		SPECIAL 1	WEIGHT
		(A)	(B)	(S)	(KG)		
EFET11202020	20/20/20MM	42	88	42	0.074		
EFET11252525	25/25/25MM	53	98	79	0.08		
EFET11323232	32/32/32MM	67	110	92	0.132		
EFET11404040	40/40/40MM	66	109	107	0.14		
EFET11505050	50/50/50MM	82	124	130	0.195		
EFET11636363	63/63/63MM	83	124	146	0.19		
EFET11757575	75/75/75MM	82	124	171	0.225		
EFET11909090	90/90/90MM	95	143	200	0.34		
EFET11110110110	110/110/110MM	114	158	218	0.465		
EFET11160160160	160/160/160MM	114	158	298	0.55		

ELECTROFUSION TEE UNEQUAL SDR11

CODE	SIZE	WIDTH / FACE		OVERALL LENGTH		SPECIAL 1	WEIGHT
		(A)	(B)	(S)	(KG)		
EFUT11252025	25/20/25MM	36	109	78	0.08		
EFUT11322532	32/25/32MM	45	115	92	0.102		
EFUT11402540	40/25/40MM	54	146	117	0.175		
EFUT11403240	40/32/40MM	53	146	117	0.185		
EFUT11503250	50/32/50MM	65	174	129	0.311		
EFUT11504050	50/40/50MM	66	174	128	0.312		
EFUT11633263	63/32/63MM	76	150	140	0.276		
EFUT11634063	63/40/63MM	75	150	140	0.279		
EFUT11635063	63/50/63MM	77	195	144	0.444		
EFUT11755075	75/50/75MM	92	204	171	0.68		
EFUT11756375	75/63/75MM	91	203	171	0.7		
EFUT11904090	90/40/90MM	108	200	175	0.77		
EFUT11905090	90/50/90MM	109	200	178	0.76		
EFUT11906390	90/63/90MM	110	200	178	0.8		
EFUT11907590	90/75/90MM	110	234	196	0.98		
EFUT1111040110	110/40/110MM	133	222	198	1.19		
EFUT1111050110	110/50/110MM	132	222	199	1.16		
EFUT1111063110	110/63/110MM	132	223	200	1.15		
EFUT1111090110	110/90/110MM	132	269	216	1.64		
EFUT1116063160	160/63/160MM	193	287	294	3.1		
EFUT1116090160	160/90/160MM	193	288	293	3.11		
EFUT11160110160	160/110/160MM	193	286	291	3.15		
EFUT1120063200	200/63/200MM	242	296	318	4.45		
EFUT1120090200	200/90/200MM	242	298	338	4.58		
EFUT11200110200	200/110/200MM	242	298	339	4.75		

ELECTROFUSION ELBOW 45DEG SDR11

CODE	SIZE	WIDTH /	SPIGOT	OVERALL	WEIGHT
		FACE		LENGTH	
		(A)	(L)	(B)	(KG)
EFE114540	40MM	54	50	85	0.11
EFE114550	50MM	64	55	101	0.164
EFE114563	63MM	80	59	115	0.245
EFE114575	75MM	99	63	140	0.51
EFE114590	90MM	114	85	160	0.715
EFE1145110	110MM	139	90	195	1.225
EFE1145160	160MM	190	92	259	2.47

ELECTROFUSION ELBOW 90DEG SDR11

CODE	SIZE	WIDTH /	SPIGOT	OVERALL	WEIGHT
		FACE		LENGTH	
		(A)	(L)	(B)	(KG)
EFE119020	20MM	31	32	48	0.075
EFE119032	25MM	39	36	74	0.08
EFE119040	32MM	49	42	84	0.116
EFE119050	40MM	59	45	102	0.175
EFE119063	50MM	68	50	117	0.245
EFE119075	63MM	84	53	128	0.345
EFE119090	75MM	95	60	152	0.545
EFE119090	90MM	116	70	180	0.9
EFE1190110	110MM	141	81	217	0.76
EFE1190160	160MM	199	89	283	3.46
EFE1190200	200MM	246	99	346	5.775

ELECTROFUSION ELBOW 45DEG SDR11

CODE	SIZE
EFTA116320	63/20MM
EFTA126325	63/25MM
EFTA136332	63/32MM
EFTA149020	90/20MM
EFTA159025	90/25MM
EFTA169032	90/32MM
EFTA1711020	110/20MM
EFTA1811025	110/25MM
EFTA1911032	110/32MM
EFTA2011040	110/40MM
EFTA2111050	110/50MM
EFTA2211063	110/63MM
EFTA2312520	125/20MM
EFTA2412525	125/25MM
EFTA2512532	125/32MM
EFTA2612540	125/40MM
EFTA2712550	125/50MM
EFTA2812563	125/63MM

CODE	SIZE
EFTA2914032	140/32MM
EFTA3014040	140/40MM
EFTA3114050	140/50MM
EFTA3214063	140/63MM
EFTA3316020	160/20MM
EFTA3416025	160/25MM
EFTA3516032	160/32MM
EFTA3616040	160/40MM
EFTA3716050	160/50MM
EFTA3816063	160/63MM
EFTA4018020	180/20MM
EFTA4018025	180/25MM
EFTA4118032	180/32MM
EFTA4218040	180/40MM
EFTA4318050	180/50MM
EFTA4418063	180/63MM
EFTA4520032	200/32MM
EFTA4620040	200/40MM

CODE	SIZE
EFTA4720050	200/50MM
EFTA4820063	200/63MM
EFTA4922520	225/20MM
EFTA5022525	225/25MM
EFTA5122532	225/32MM
EFTA5222540	225/40MM
EFTA5322550	225/50MM
EFTA5422563	225/63MM
EFTA5525032	250/32MM
EFTA5625040	250/40MM
EFTA5725050	250/50MM
EFTA5825063	250/63MM
EFTA5928032	280/32MM
EFTA6028040	280/40MM
EFTA6128050	280/50MM
EFTA6228063	280/63MM
EFTA6331532	315/32MM
EFTA6431540	315/40MM
EFTA6531550	315/50MM
EFTA6631563	315/63MM

BAY OUTLETS

SCREW DOWN

These outlets are automation compatible. These are the only outlet that will seal against water pressure coming through the pipe. So in most cases these outlets would be installed with the outlet in the paddock, rather than all other outlets having to be installed in the channel.

OUTSIDE DIAM. MM	INSIDE DIAM. MM	INSIDE DIAM. INCHES
160mm	152.2	6"
200mm	190.4	7 1/2"
225mm	214.2	8 1/2"
250mm	237.8	9 1/4"
280mm	266.6	10 1/2"
315mm	300	11 3/4"
355mm	338	13 1/4"
400mm	381	15"
450mm	428.6	17"
500mm	476	18 3/4"
560mm	533.4	21"
630mm	600	24"



Screw Down Valve Outlet
c/w Stainless Steel Splashback



LOCK DOWN OUTLET

These are our over centre locking flap mechanism. They are a very cost-effective outlet that can be installed as a 90 degree, 30 degree or on straight pipe. These outlets range from 160mm – 450mm in size, supplying 1.5 – 14 megalitres per day depending on the outlet size and the amount of command head in the channel.



Straight Lock Down Mechanism



30 Degree Lock Down Mechanism

BAY OUTLET SLIDES / 30 DEGREE SLIDE

Sliding doors offer the option of regulating flow in a flood irrigation process. Construction using marine grade aluminium of a very high standard provides a unit of considerable durability.

Points to note when ordering this type of bay outlet:

- As with all our bay outlets, the overall length is measured between the two furthest points of the bay outlet
- Variations on type arrangements are available upon request

The 30 degree slide is another cost-effective bay outlet with aluminium door and frame as the outlet structure. The main advantage to this outlet over the lock down is that you can control the flow to a certain degree by putting a pin through the door to hold open at different heights. Some customers find this outlet a little easier to shut than the lock down outlet as the door comes up on a 30-degree angle and is usually a bit closer to the bank.

OUTSIDE DIAM. MM	INSIDE DIAM. MM	INSIDE DIAM. INCHES
160	152.2	6
200	190.4	7 ½
225	214.2	8 ½
250	237.8	9 ¼
280	266.6	10 ½
315	300	11 ¾
355	338	13 ¼
400	381	15
450	428.6	17



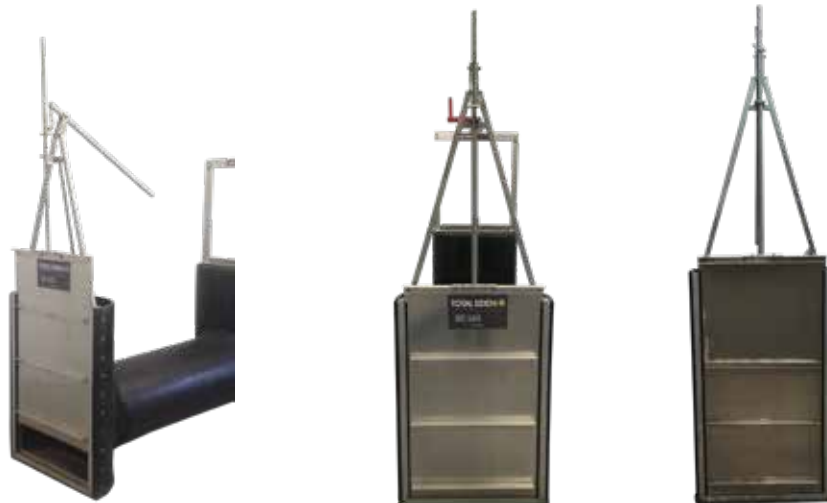
30 Degree Slides

PIPE END STOPS

These are our in-channel checks to hold water up in different sections. Commonly we attach these to a length of poly pipe and burry in the channel which can also be used for a crossing. These outlets range from 315mm – 1000mm depending on flows required. We also do the Pipe End Stops with a winder mechanism for ease of opening when there may be higher head pressure on the door or in the larger size pipes. We also use the winder doors to retro fit onto existing concrete headwalls. It must be noted to the customer that these doors are only designed to stop water one way (water pressure pushing against the door). If you try to do it the other way it will push the door out of the rubber guides.



Pipe End Stop Winder Door



Pipe End Stop c/w Folding Jack

TECHNICAL DATA



**Gradian
Hydrotech**

PIPE SIZE DIMENSIONAL DATA

PIPE MATERIAL	ABBREVIATION	STANDARD	DESIGNATION	PIPE OUTSIDE DIAMETER - NOMINAL SIZE																		
				50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	675
Iron	DICL	AS/NZS 2280	Class K9 or K12	-	-	96	122	177	-	177	-	232	259	286	345	-	426	-	507	560	667	826
		ISO 2531/BS EN 545		-	98	118	170	-	222	-	274	326	378	-	429	480	532	-	635	-	-	-
Steel	MSCL	AS 1579	6mm Wall Thickness	-	-	-	114	168	-	168	-	219	257	273	324	356	406	457	508	559	660	813
	GWI	AS 1074		60	76	89	114	140	165	-	-	-	-	-	-	-	-	-	-	-	-	-
Polyvinyl Chloride	UPVC	AS/NZS 1477	Series 1 (White)	60	75	89	114	140	160	160	200	225	250	280	315	355	400	450	500	560	630	-
	MPVC	AS/NZS 4765	Series 2 (Blue)	-	-	-	122	-	177	-	232	259	286	345	-	426	-	507	560	667	-	-
	OPVC	AS/NZS 4441		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polyethylene	PE 80B or PE 100	AS/NZS 4130	Class PN12.5 or PN 16	63	-	90	110/125	160	180	-	250	280	315	355	-	450	-	-	-	-	-	-
Acronitrile Butadiene Styrene	ABS	BS 5391 Part 1	Class C,E,T	60	75	89	114	140	168	-	219	-	-	-	-	-	-	-	-	-	-	-
Glass Reinforced Plastic	GRP	AS 3571	SN 5000 or SN 10000	-	-	-	122	-	177	-	232	259	286	345	399	426	453	507	560	587	667	747
Copper	CU	AS 1432	Type A or B	51	64	76	102	127	152	-	203	229	-	-	-	-	-	-	-	-	-	-
Grey Cast Iron	CICL	AS 1724	Class B	-	-	-	122	-	177	-	232	259	286	334	-	413	-	492	545	650	-	-
		AS 2544	Class C	-	-	96	122	-	177	-	232	259	286	345	-	426	-	507	560	667	-	-
Asbestos Cement	AC	AS 1711	Class AB	-	-	96	122	-	177	-	232	259	286	334	-	413	-	492	572	650	-	-
			Class CD	-	-	96	122	-	177	-	232	259	286	345	-	426	-	507	587	667	747	826
Reinforced Concrete	RC	AS 4058	Class 2,3 or 4	-	-	-	-	-	197	-	-	279	-	362	-	445	-	533	616	699	787	870
Grey Cast Iron	Soil Pipe	AS 1631		-	-	86	112	140	165	-	-	244	-	325	-	-	-	-	-	-	-	-
		EN 877		-	-	83	110	135	160	-	210	-	274	326	-	429	-	532	635	-	-	-
PVC	SWV	AS/NZS 1260		56	69	83	110	160	160	-	250	-	315	-	400	-	-	-	-	-	-	-
Putrified Clay	VC	AS 1741		-	-	-	138	-	194	-	280	-	370	-	450	485	535	635	710	-	-	-
Fibre Reinforced Cement	FRC		Class X	-	-	-	124	-	179	-	261	-	245	-	426	-	510	594	679	-	-	-
Asbestos Cement	AC		Class 35	-	-	-	120	-	177	-	230	257	283	336	-	419	-	497	576	657	-	-
		AS 1741	Class 50	-	-	-	122	-	183	-	236	262	289	344	-	425	-	505	585	664	-	-

STANDARD DIMENSION RATIOS [SDR] FOR SERIES 1 METRIC PE PIPES – AS/NZS4130

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

AS/NZS4130 – General Pressure Pipe, Straight Lengths. O.D./Wall = SDR.

RURAL POLY PIPE DIMENSIONS: RURAL – AS2698.2 (CLASS B), IMPERIAL – CLASS C & D (ASK119)

PIPE SIZE	RURAL B – 600 kPa (87 PSI)		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
½"	12.7	1.7	12.7	1.7	12.7	1.8
¾"	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 ¼"	31.6	2.1	31.6	3.3	31.6	4.4
1 ½"	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

HDPE PE100 - PRESSURE PIPE DIMENSIONS AS/NZS4130

SDR	41				26				21				17				13.6				11				9				
	4				6.3				8				10				12.5				16				20				
PN for PE100	Mean ID	Ovality Max	Weight Ave kg/m	Min Wall	Mean ID	Ovality Max	Weight Ave kg/m	Min Wall	Mean ID	Ovality Max	Weight Ave kg/m	Min Wall	Mean ID	Ovality Max	Weight Ave kg/m	Min Wall	Mean ID	Ovality Max	Weight Ave kg/m	Min Wall	Mean ID	Ovality Max	Weight Ave kg/m	Min Wall	Mean ID	Ovality Max	Weight Ave kg/m		
16																													
20																													
25																													
32																													
40																													
40																													
63																													
75																													
90																													
110																													
125																													
140																													
160																													
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225																													
250																													
280																													
315																													
355																													
400																													
450																													
500																													
560																													
630																													
710																													
800																													
900																													
1000																													
1200																													
1400																													
1600																													
1800																													
2000																													

Note: 1) All dimensions are in mm and mass in kg/m
 2) Nominal Diameter (DN) equals outside diameter.

CONVERSION FACTORS TABLE

FROM	TO	MULTIPLY BY
VOLUME		
imperial gallon	US gallon	1.2
US gallon	imperial gallon	0.83
imperial gallon	litres	4.55
litres	imperial gallon	0.22
litres	cubic metres	0.001
cubic feet	litres	28.32
FLOW		
gallons/min	cubic metres/sec	0.0000523
gallons/min	cubic metres/hr	0.272
cubic metres/hr	gallons/min	3.67
litres/sec	cubic metres/hr	3.6
litres/min	cubic metres/hr	0.06
VELOCITY		
feet/min	metres/sec	0.00508
feet/sec	metres/sec	0.3048
kilometres/hour	metres/sec	0.2778
POWER		
kilowatts	horsepower	0.746
horsepower	kilowatts	1.34
PRESSURE		
kilograms/sq. cm	pound/sq. inch	14.223
kilograms/sq. m	Pascals	9.807
kilograms/cu. m	pounds/cu. foot	0.06243
pounds/cu. foot	kilograms/cu. m	16.019
pounds/sq. foot	kilograms/sq. m	4.8824
pounds/sq. foot	Pascals	47.88
pounds/sq. inch	Pascals	6.894
feet head	kilopascals	3.35
kilopascals	feet head	0.2984
pounds/sq. inch	feet head	2.31
kilopascals	metres head	0.102
metres head	kilopascals	9.83
metres head	pound/sq. inch	1.422
pounds/sq. inch	metres head	0.703
kilopascals	pound/sq. inch	0.145
pounds/sq. inch	kilopascals	6.895
AREA		
square metres	hectares	0.0001
hectares	square metres	10
acres	hectares	0.405
hectares	acres	2.469

IMPERIAL THREAD SIZES

IMPERIAL SIZE	METRIC EQUIVALENT (NOMINAL)
1/16"	1.6 mm
1/8"	3.2 mm
3/16"	5 mm
1/4"	6 mm
3/8"	10 mm
1/2"	13 mm or 15 mm
3/4"	19 mm or 20 mm
1"	25 mm
1 1/4"	32 mm
1 1/2"	40 mm
2"	50 mm
2 1/2"	65 mm
3"	80 mm
4"	100 mm

Disclaimer: Product dimensions, weights and conversion tables are to be used as a guide only.

Gradian Hydrotech does not accept responsibility for any errors or omissions.

Note: Gallons are imperial gallons unless otherwise stated

ISO
TYPE
5

CERTIFICATE OF CONFORMITY



ApprovalMark International hereby grants:

Gradian Hydrotech Pty Ltd

23 Telford Drive
Shepparton, VIC 3630
AUSTRALIA

ISO Type 5 Certificate of Conformity

Evaluated to:

AS/NZS 4129:2020 – Fittings for polyethylene (PE) pipes for pressure applications

The ISO Type 5 License shall comply with all the terms and conditions as stipulated by the governance of the operating rules of the ISO Type 5 Scheme and shall comply with the standard requirements at all times including when the standard is amended. The ISO Type 5 License only covers the product which is identified in the attached product schedule.

Certificate No. AMI 74951

Issued: 22nd April 2022

Original Issue: 22nd April 2022

Expires: 22nd April 2025

Current Certification: 22nd April 2022

A handwritten signature in black ink, appearing to read "John Prasad".

John PRASAD

Director

ApprovalMark International Pty Ltd
18/33 Holbeche Road, Arndell Park 2148, Australia
www.approvalmark.com



Registered by: ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 18, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd, however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.

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