



High Density Polyethylene Fittings

PRODUCT CATALOGUE

HDPE

Fabricated &
Moulded Fittings

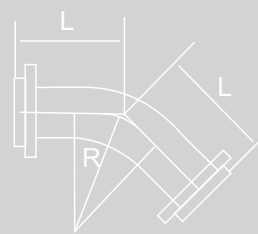
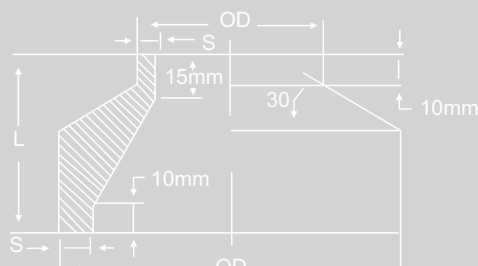


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Introduction

Fittings such as Bends, tees, laterals, reducing tees and laterals and manifolds can be manufactured using HDPE pipe.

The fittings can be manufactured in either plain ended, flanged, Tak stub ends or Victaulic ends. Fittings can be made with combinations of all the ends as well.

The permissible working pressure is 60% of the rated pressure of the pipe used to manufacture the fittings. eg. - 10 Bar pipe produces a 6 Bar fitting.

The dimensions shown on the following pages applies to standard fittings, but fittings can be manufactured to customer requirements. Fittings made from HDPE share the same features and benefits as the pipe they are manufactured from.

These include:

- UV resistance
- Low mass
- Corrosion resistance
- High impact strength
- Good chemical resistance
- Abrasion resistant
- Low friction loss

Pipe bearing the SABS mark of approval must always be used when fittings are fabricated. This ensures consistent quality in the pipeline. Fabricated fittings can be included in a pipeline using the following methods of jointing.

Combination of the systems to the right can be used.

Buttwelding can be done in sizes 50mm to 1000mm
Electrofusion can be done in sizes 20mm to 800mm
Flanging can be done in electro fusion 20mm to 800mm and in compression from 20mm to 160mm. Tak and Victaulic systems can be welded on to pipes from 63mm to 315mm.



BUTTWELDING



ELECTROFUSION



TAK & VICTAULIC



COMPRESSION FITTINGS



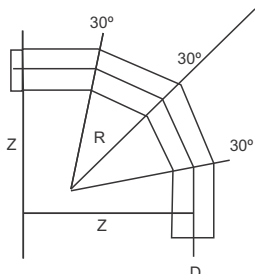
FLANGING



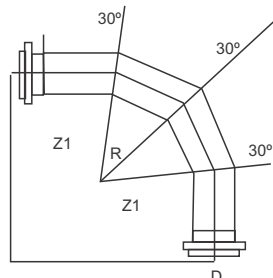
High Density Polyethylene Fittings

FITTING RANGE

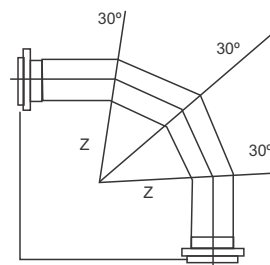
SEGMENTED BENDS



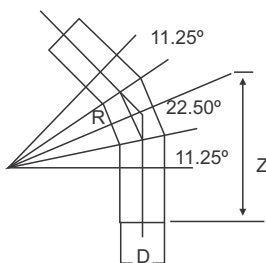
90° Bends Plain Ended



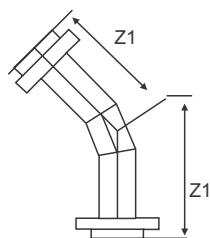
90° Bends Flanged



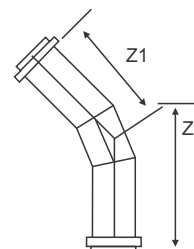
90° Bends with takstubs and victaulic stubs



45° Bends Plain Ended



45° Bends Flanged



45° Bends with takstubs and victaulic stubs



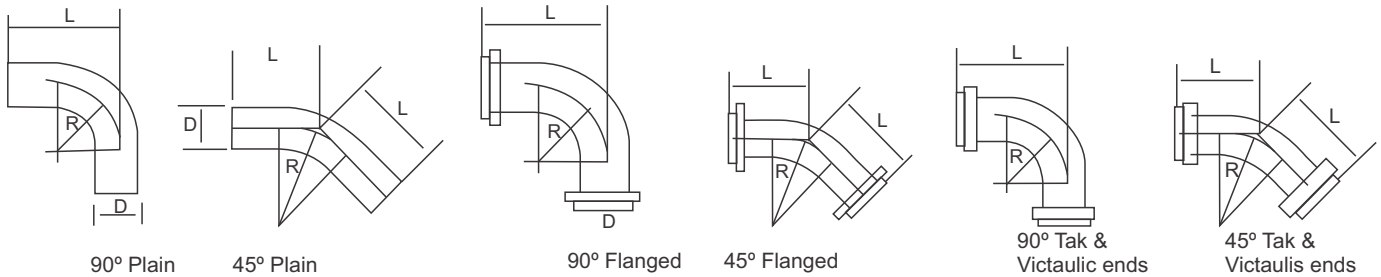
Dia (D)	Radius (R)	Plain ended		Flanged		With Tak &		Wall thickness			
		90°	45°	90°	45°	90°	45°	SDR 17	SDR17	SDR11	SDR11
		Z	Z	Z1	Z1	Z1	Z1	Min	Max	Min	Max
50	75	220	220	265	265			3.0	3.4	4.6	5.2
63	95	280	280	325	325	325	325	3.8	4.3	5.8	6.5
75	113	330	330	375	375	375	375	4.5	5.1	6.8	7.6
90	135	400	400	445	445	445	445	5.4	6.1	8.2	9.2
110	165	370	370	415	415	415	415	6.6	7.4	10.0	11.1
125	180	400	400	455	455	455	455	7.4	8.3	11.4	12.7
140	210	430	430	475	475	475	475	8.3	9.3	12.7	14.1
160	240	470	470	525	525	525	525	9.5	10.6	14.6	16.2
180	270	510	510	575	575	575	575	10.7	11.9	16.4	18.2
200	300	550	550	615	615	615	615	11.9	13.2	18.2	20.2
225	338	600	600	675	675	675	675	13.4	14.9	20.5	22.7
250	375	650	650	715	715	715	715	14.8	16.4	22.7	25.1
280	420	710	710	795	795	795	795	16.6	18.4	25.4	28.1
315	472	620	620	695	695	695	695	18.7	20.7	28.6	31.6
355	532	680	680	755	755			21.1	23.4	32.2	35.6
400	600	760	760	845	845			23.7	26.2	36.3	40.1
450	675	1300	900	1385	985			26.7	29.5	40.9	45.1
500	750	1400	900	1485	985			29.7	32.8	45.5	50.1
560	840	1150	950	1240	1040			33.2	36.7	50.8	56.0
630	945	1300	1100	1400	1200			37.4	41.3	57.2	63.1

Note - Lengths of flanged bends could change with higher pressure class as stubs are longer
 Angles other than 90° and 45° can be manufactured on request
 All sizes in mm

High Density Polyethylene Fittings

FITTING RANGE

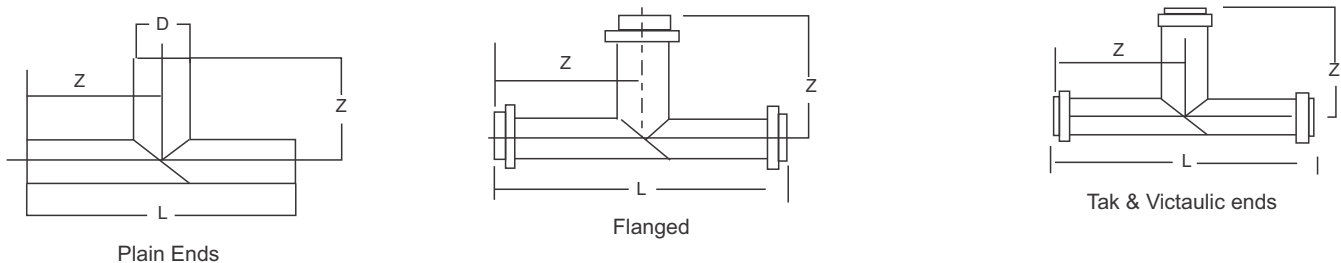
LONG RADIUS SEAMLESS BENDS



OD	Plain ended			Flanged		Tak and Victaulic	
	R	45° L	90° L	45° J.	90° L	45° L	90° L
110	330	345	535	400	690	400	590
125	375	360	580	420	640	415	635
140	420	380	625	440	685	435	680
160	480	405	685	475	755	460	740
180	540	430	745	500	815	515	830
200	600	455	805	525	875	540	890
225	675	485	880	565	960	570	965
250	750	515	955	595	1035	600	1040
280	840	555	1045	637	1125		
315	945	585	1150	675	1240		
355	1065	645	1270	735	1360		
400	1200	705	1405	805	1505		
450	1350	765	1555	865	1655		
500	1500	830	1705	930	1805		



FABRICATED TEES



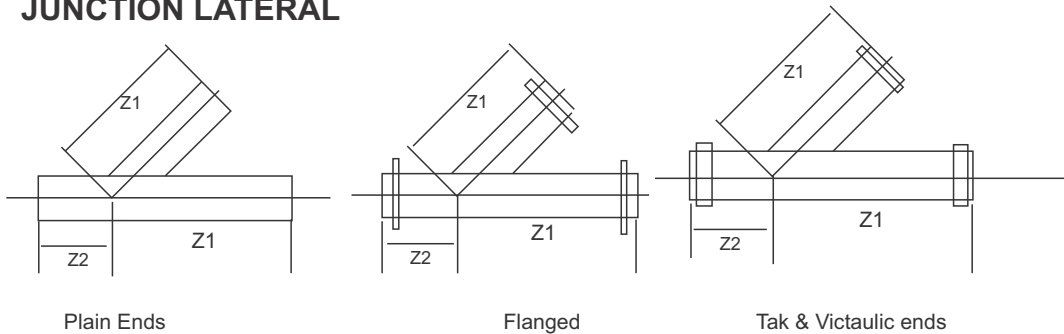
DIA(D)	Plain ended		Flanged		Tak and victaulic ends	
	Z (centre to face)	L (Length of body)	Z (centre to face)	L (Length of body)	Z (centre to face)	L (Length of body)
50	150	300	200	400		
63	150	300	200	400	200	400
75	400	800	450	950	450	950
90	400	800	450	900	450	900
110	400	800	450	900	450	900
125	400	800	450	900	450	900
140	400	800	450	900	450	900
160	400	800	450	900	450	900
180	450	900	500	1000	500	1000
200	450	900	500	1000	500	1000
225	450	900	500	1000	500	1000
250	450	900	500	1000	500	1000
280	650	1300	700	1400	700	1400
315	650	1300	700	1400	700	1400
355	650	1300	700	1400		
400	650	1300	700	1400		
450	850	1700	900	1800		
500	850	1700	900	1800		
560	900	1800	950	1900		
630	900	1800	950	1900		



High Density Polyethylene Fittings

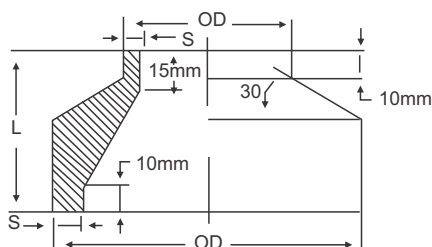
FITTING RANGE

JUNCTION LATERAL



Plain ends			Flanged		Tak and Victaulic ends	
45°						
Size mm	Z1 (Branch)	Z2 (Centre to face)	Z1 (Branch)	Z2 (Centre to face)	Z1 (Branch)	Z2 (Centre to face)
50	200	150	250	200	250	200
63	200	150	250	200	250	200
75	475	370	525	420	525	420
90	475	370	525	420	525	420
110	475	370	525	420	525	420
125	475	370	525	420	525	420
140	475	370	525	420	525	420
160	475	370	725	420	725	420
180	875	530	725	500	725	500
200	875	530	725	500	725	500
225	875	530	725	500	725	500
250	875	530	725	500	725	500
280	900	700	900	700	900	700
315	900	700	900	700	900	700
355	900	700	900	700		
400	900	700	900	700		
450	1100	870	1100	870		
500	1100	870	1100	870		
560	1200	950	1200	950		
630	1200	950	1200	950		

CONCENTRIC REDUCERS



Dia (D1)	Dia (D2)	L
25	20	60
32	20,25	60
40	20,25,32	60
50	25,32,40	60
63	25,32,40,50	60
75	32,40,50,63	60
90	40,50,63,75	60
110	63,75,90	60
125	75,90,110	60
140	90,110,125	80
160	90,110,125,140	80
180	110,125,140,160	80
200	140,160,180	80
225	160,180,200	80
250	180,200,225	80
280	200,225,250	80
315	250,280	80
355	280,315	90
400	315,355	90
450	355,400	90
500	400,450	90

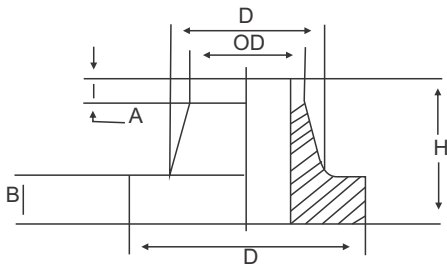


Note - Lengths of flanged bends could change with higher pressure class as stubs are longer
 Angles other than 90° and 45° can be manufactured on request
 All sizes in mm

High Density Polyethylene Fittings

FITTING RANGE

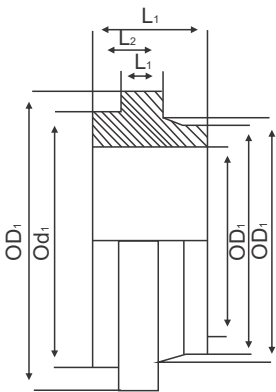
STUBS



Dia OD	D	A	D2	PN 4 -10		PN12-20	
				B	H	B	H
16	46	10	28	15	40	15	40
20	46	10	28	15	40	15	40
25	56	10	36	15	40	15	40
32	65	10	43	20	40	27	60
40	73	10	50	20	50	27	60
50	83	10	60	20	50	27	60
63	98	10	71	20	50	27	60
75	110	10	83	20	50	27	60
90	129	10	100	20	50	27	60
110	158	10	125	25	55	35	75
125	160	10	133	30	60	35	75
140	188	10	155	30	60	35	75
160	217	10	187	35	70	55	100
180	217	10	187	35	70	55	100
200	270	10	234	35	70	55	100
225	270	10	234	45	80	55	100
250	310	10	275	45	80	75	120
280	325	10	289	45	80	75	120
315	375	10	327	50	90	75	120
355	430	10	373	50	90	75	120
400	486	10	426	60	100	75	120
450	540	10	472	60	100	75	120
500	585	10	526	60	100		
560	645	10	588	65	105		
630	725	10	658	65	105		



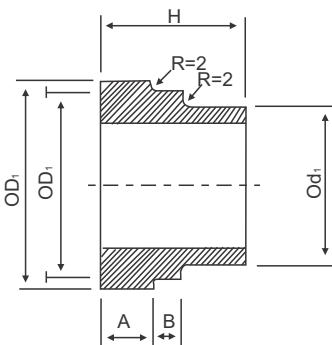
TAK STUB



Pipe OD	OD1	OD2	L1	L2	L3
110	125	138	23	35	53
125	148	167	22	32	55
140	156	175	28	40	60
160	177	196	32	44	65
180	204	224	33	44	65
200	222	246	34	47	68
225	248	272	46	33	74
250	272	297	35	50	75
280	304	326	38	53	78



VICTAULIC STUB



Pipe OD	OD1	OD2	OD3	A	B	H	Clamp Size	
50	63	68.5	60	50.5	16.0	10	55	2"
10	90	97.0	90	61.0	16.0	15	55	3"
75	90	97.0	90	76.0	16.0	15	55	3"
90	110	124.5	115	91.0	16.5	15	55	4"
110	110	124.5	115	111.0	16.5	15	55	4"
125	160	178.5	161	126.0	17.0	15	55	6"
140	160	178.5	161	141.0	17.0	15	55	6"
160	160	178.5	161	161.0	17.0	15	55	6"
180	225	231.5	218	181.0	21.0	21	85	8"
200	225	231.5	218	201.5	21.0	21	85	8"
225	225	286.0	273	226.5	21.0	21	85	10"
250	225	286.0	273	251.5	21.0	21	85	10"

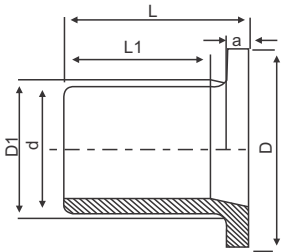


Note - "S" dimension is equal to wall thickness of pipe
 Note 2 -ID = OD - 2 x wall thickness of pipe
 All sizes in mm

High Density Polyethylene Fittings

FITTING RANGE

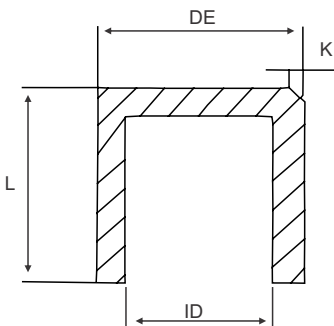
ELONGATED STUBS



Pipe size d	L (Length)	LI (Length of straight)	a	D	dl
88	85	45	7	45	26
25	85	40	9	58	32
32	85	60	10	68	40
40	85	60	11	78	50
50	104	75	12	88	61
63	120	87	14	102	75
75	130	92	16	122	89
90	140	96	17	138	105
110	160	110	18	158	125
125	182	132	25	158	132
140	180	130	25	188	155
160	180	130	25	212	175
180	198	140	30	212	187
200	200	135	32	268	232
225	200	135	32	268	235
250	215	145	35	320	285
280	228	160	35	320	291
315	238	160	35	370	335
355	255	175	40	430	373
400	286	195	45	482	427



END CAPS

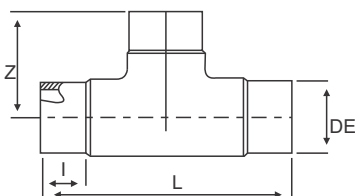


DE	L	K
50	61	5
63	79	5
75	86	5
90	95	5
110	89	5
125	107	6
140	129	6
160	118	6
180	150	6
200	143	6
225	119	7
250	188	7
280	283	7
315	292	7



MOULDED FITTINGS

TEES 90° LONG

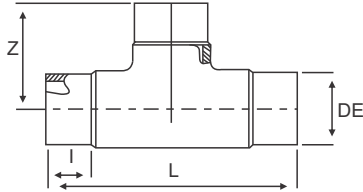


DE	L	Z	I
75	250	124	68
90	280	139	80
110	313	153	86
125	350	172	94
140	375	188	96
160	400	200	98
200	502	270	126
250	623	307	148



All sizes in mm
 Note - "S" dimension is equal to wall thickness of pipe
 Note 2 -ID = OD - 2 x wall thickness of pipe
 All sizes in mm

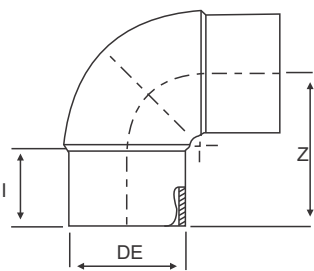
REDUCING TEES LONG



DE1	DE2	L	Z	I1	I2
110	63	313	152	86	80
110	75	313	151	86	79
110	90	313	151	86	78
160	63	400	187	97	88
160	90	400	187	97	88
160	110	400	189	97	87



ELBOWS 90° LONG



DE	Z	I
110	202	78
125	197	64
140	213	77
160	233	76
200	333	116
250	459	174



Long Radius Bends

It should be noted that when PE 100 materials were introduced the wall thickness of piping was seamless reduced. In order to manufacture a long radius seamless bend the pipe is heated and bent in a hydraulic press. This action caused the inside arc of the bend to compress and the outside arc to stretch.

SDR 17 (PN 10) pipe material can ripple on the inside arc and flatten on the outside arc as this process takes place.

The bend is held at the required angle by using strapping thru the bend.

This causes the end of the bends to become oval as the pipe stresses against the strapping. This is normal and contractors should be aware that the bend legs are made longer than the specification shows so that they can trim the leg back to a place where the pipe is once again round.

THIS IS NORMAL PRACTICE

It is NOT advisable to use SRDR 17 long radius seamless bends. SDR 11 (PN 16) bends should be ordered instead. The throat of the bend can be trimmed on site to suit the SDR 17 pipe.

If however SDR 17 material is required it is suggested that SEGMENTED BENDS ARE ORDERED.



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