



PE Water Pipe and Fittings



www.siffopipeline.com

Product Overview

- ◎ **Material:** PE 80 or PE 100
- ◎ **Pressure Rating:** 0.4MPa, 0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa, 2.0MPa, 2.5MPa
- ◎ **Size:** full 20mm through 1600mm availability
- ◎ **Standard:** ISO 4427-2, EN 12201-2, AS/NZS 4130, BS 6920, GB/T 13663.
- ◎ **Colors:**
 - Blue
 - Black with blue stripes
 - Other colors are also available upon request
- ◎ **Form Supplied:**
 - 5.8 meters straight length (all size)
 - 50 or 100 meters coil length (d_n20~d_n63)
 - Other forms are also available upon request



Advantages

- ◎ **Non-toxic:** no heavy metal additives, would not be covered with dirt or contaminated by bacterium. Sanitary. No Secondary pollution.
- ◎ **Corrosion Resistance:** unaffected by chemical matters and electron chemical matters which cause corrosion in metals.
- ◎ **High flow capacity:** smooth interior walls and low abrasion resistance result low flow resistance and high flow capacity.
- ◎ **Excellent Flexibility:** can be supplied in coil form, fewer fittings required and lower cost in installation.
- ◎ **High impact and breakage resistance.**
- ◎ **Excellent UV resistance.**
- ◎ **Differential Settlement Resistance:** low requirements for foundation treatment.
- ◎ **Easy Installation:** light weight, easy to transport and handle friendly.
- ◎ **Long Service Life:** PE water pipe can work for more than 50 years under proper use.
- ◎ **Use trenchless technology.**
- ◎ **Various Joint Availability:** socket fusion joint, butt fusion joint, electro fusion joint and transition joint.

Applications

- ◎ **Municipal water supply**
- ◎ **Commercial & Residential water supply**
- ◎ **Industrial liquids transportation**
- ◎ **Sewage treatment**



The damage percentages in the water supply lines at Kobe/Japan earthquake in 1995.

Pipe Type	Percentage of damage Piece/km
Ductile Cast Iron Pipe	0.488
Cast Iron Pipe	1.508
PVC Pipe	1.430
Steel Pipe	0.437
Asbestos Steel Pipe	1.782
PE Pipe	0

Specifications PE100 Water Pipe

Nominal pressure	PN6	PN8	PN10	PN12.5	PN16	PN20	PN25
Standard Dimension Ratio	SDR26	SDR21	SDR17	SDR13.6	SDR11	SDR9	SDR7.4
DN(mm)	Thickness(mm)						
DN20			1.50	1.80	2.30	2.30	3.00
DN25			1.80	2.30	2.30	3.00	3.50
DN32			2.30	2.40	3.00	3.60	4.40
DN40		2.30	2.40	3.00	3.70	4.50	5.50
DN50	2.30	2.40	3.00	3.70	4.60	5.60	6.90
DN63	2.50	3.00	3.80	4.70	5.80	7.10	8.60
DN75	2.90	3.60	4.50	5.60	6.80	8.40	10.30
DN90	3.50	4.30	5.40	6.70	8.20	10.40	12.30
DN110	4.20	5.30	6.60	8.10	10.00	12.30	15.10
DN125	4.80	6.00	7.40	9.20	11.40	14.00	17.10
DN140	5.40	6.70	8.30	10.30	12.70	15.70	19.20
DN160	6.20	7.70	9.50	11.80	14.60	17.90	21.90
DN180	6.90	8.60	10.70	13.30	16.40	20.10	24.60
DN200	7.70	9.60	11.90	14.70	18.20	22.40	27.40
DN225	8.60	10.80	13.40	16.60	20.50	25.20	30.80
DN250	9.60	11.90	14.80	18.40	22.70	27.90	34.20
DN280	10.70	13.40	16.60	20.60	25.40	31.30	38.30
DN315	12.10	15.00	18.70	23.20	28.60	35.20	43.10
DN355	13.60	16.90	21.10	26.10	32.20	39.70	48.50
DN400	15.30	19.10	23.70	29.40	36.30	44.70	54.70
DN450	17.20	21.50	26.70	33.10	40.90	50.30	61.50
DN500	19.10	23.90	29.70	36.80	45.40	55.80	
DN560	21.40	26.70	33.20	41.20	50.80	62.50	
DN630	24.10	30.00	37.40	46.30	57.20	70.30	
DN710	27.20	33.90	42.10	52.20	64.50	79.30	
DN800	30.60	38.10	47.40	58.80	72.60	89.30	
DN900	34.40	42.90	53.30	66.20	81.70		
DN1000	38.20	47.70	59.30	72.50	90.20		
DN1200	45.90	57.20	67.90	88.20			
DN1400	53.50	66.70	82.40	102.90			
DN1600	61.20	76.20	94.10	117.60			

HDPE Pipe Physical Characteristics

Property	Method	Standard	Unit	Value
Hydrostatic strength at 20 °C	ISO 1167-1 ISO 1167-2	ISO4427-2	—	No failure of any test piece during test period
Hydrostatic strength at 80 °C	ISO 1167-1 ISO 1167-2	ISO4427-2	—	No failure of any test piece during test period
Elongation at break for e≤5 mm	ISO 6259-1 ISO 6259-3	ISO4427-2	%	≥350%
Elongation at break for e>12 mm	ISO 6259-1 ISO 6259-3	ISO4427-2	%	≥350%
Longitudinal reversion	ISO 2505	ISO4427-2	%	≤3 % No effect on surface
Oxidation induction time	ISO 1133:2005,	ISO4427-2	min	≥20 min
Vicat Softening Temperature	DIN53460, ISO306	ISO4427-2	°C	80 °C~125 °C

Plastic-Steel Mesh Skeleton-Plastic (PE) Composite Pipe for Water Supply

■ Product Overview

Material: PE, steel mesh skeleton

Pressure Rating: 1.0MPa, 1.6MPa, 2.0MPa, 2.5MPa

Standard: CJ/T189

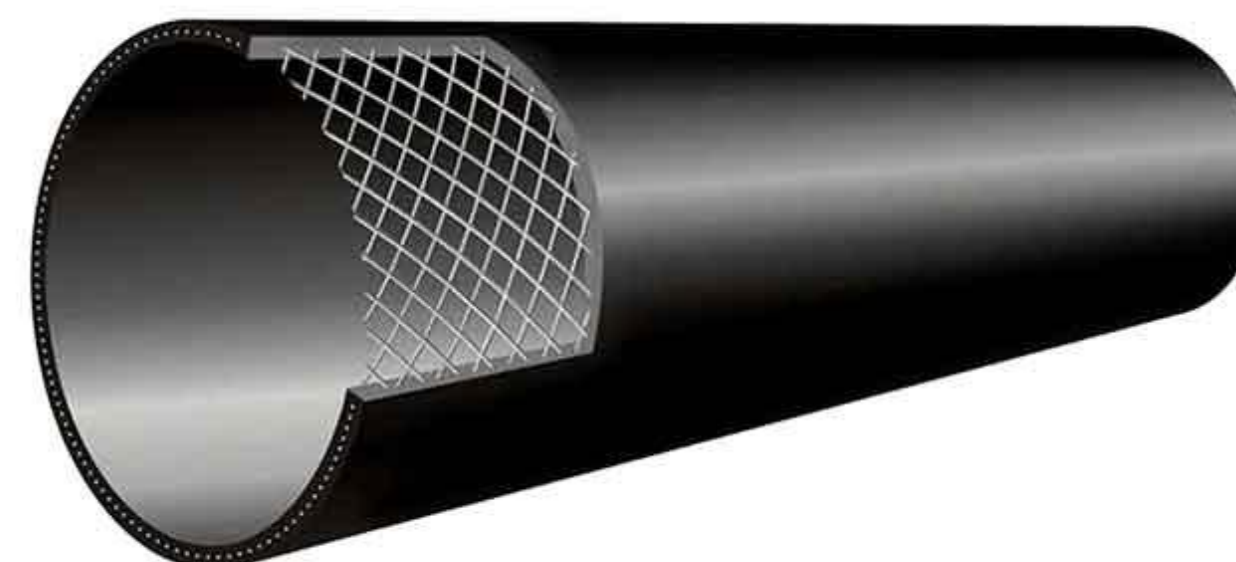
Size: full 50mm through 500mm availability

Colors: Black (all size)

Other colors are also available upon request

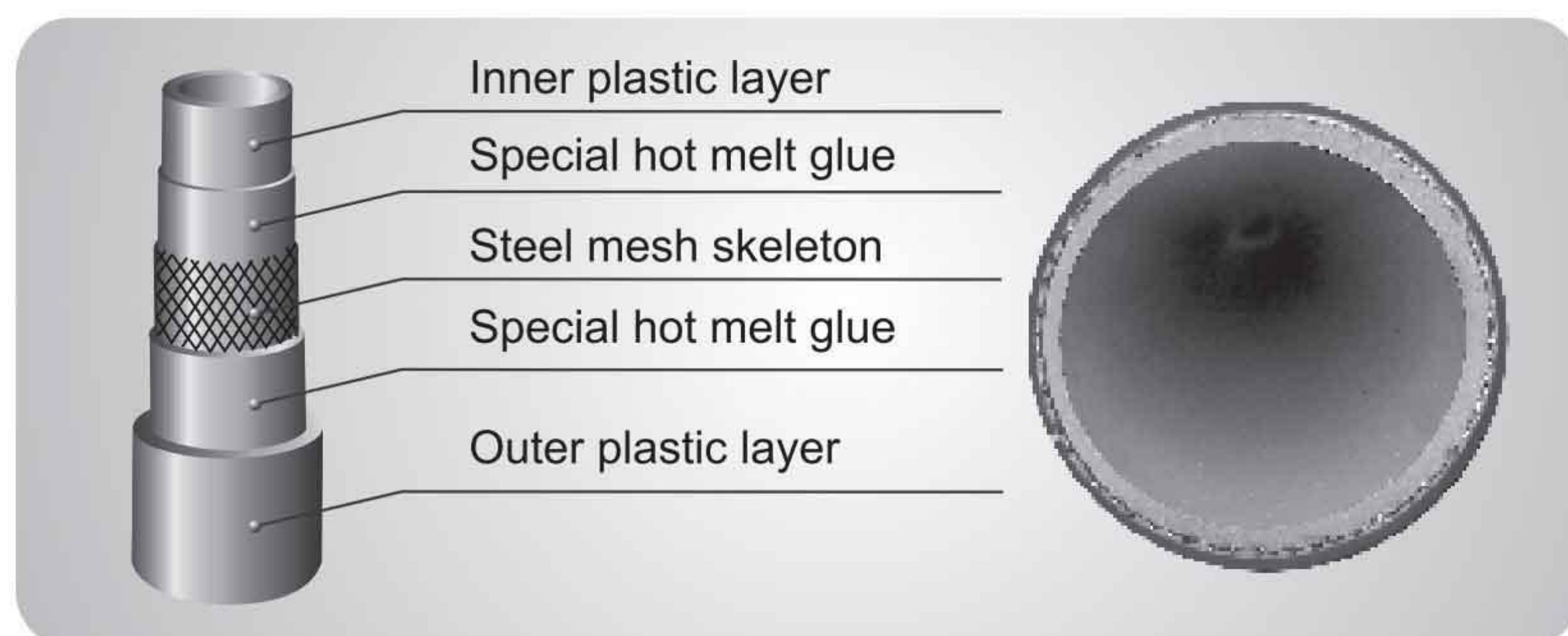
Form Supplied: 6 meters or 8 meters straight length(all size)

Others forms are also available upon request



■ Advantages

- Higher strength resistance and creep resistance.
- Excellent stiffness, impact resistance. Low linear expansion coefficient.
- Smooth inner wall, won't covered with dirt. Low flow resistance, high flow capacity.
- Both the inner and outer wall are made of plastic, lead the pipe and fittings owns good corrosion resistance.
- Light weight, easy to transport.
- Use electro-fusion joint, no leakage in the joint, fast and easy installation.
- The product is composited with steel wire and plastic, overcome the fast stress crack of plastic pipe.
- Good abrasion resistance. The product can work for more than 50 years under normal use.



Plastic-Steel Mesh Skeleton-Plastic (PE) Composite Pipe for Water Supply

PN1.0			PN1.6			PN2.0		
SAP No. (black/5.8M)	d _n (mm)	e _n (mm)	SAP No. (black/5.8M)	d _n (mm)	e _n (mm)	SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
	50	4.5	8010120226	50	4.5		50	5.0
	63	4.5	8010120229	63	4.5		63	5.0
	75	5.0	8010120230	75	5.0		75	5.0
	90	5.5	8010120231	90	5.5		90	5.5
	110	5.5	8010120033	110	7.0			
	160	6.0		160	9.0			
	200	6.0	8010120042	200	9.5			
	250	10.5		250	12.0			
	315	11.5		315	13.0			
	355	12.0		355	14.0			
	400	12.5		400	15.0			
	500	15.5		500	18.0			

PN2.5		
SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
	50	5.5
	63	5.5
	75	5.5
	90	5.5



[Features]

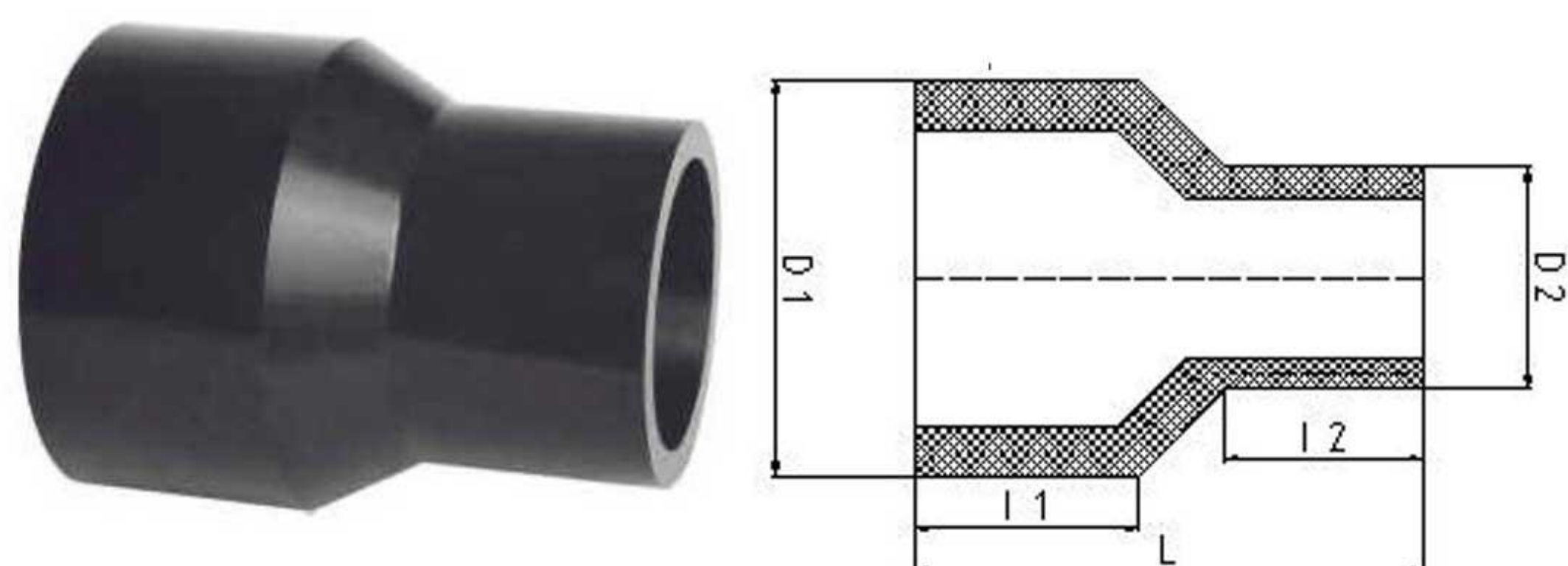
- **Material:** PE 100
- **Size:** full 75mm through 800mm availability
- **Pressure Rating:** 1.0MPa, 1.25MPa, 1.6MPa or other nominal pressures available upon request
- **Standard:** ISO 4427-3, EN 12201-3, BS EN 12201-3 AS/NZS 4129 BS 6920
- **Color:** blue
black
other colors are also available upon request
- **Joint:** joining pipe and butt joint fittings by butt fusion joint

[Advantages]

- **Non-toxic:** no heavy metal additives, would not be covered with dirt or contaminated by bacterium
- **Corrosion Resistance:** resist chemical matters and electron chemical corrosion
- **Low Installation Costs:** light weight and ease of installation can reduce installation costs
- **High Flow Capacity:** smooth interior walls result in low pressure loss and high volume
- **Longevity:** more than 50 years under proper use

Butt Fusion Joint Fittings

Reducer

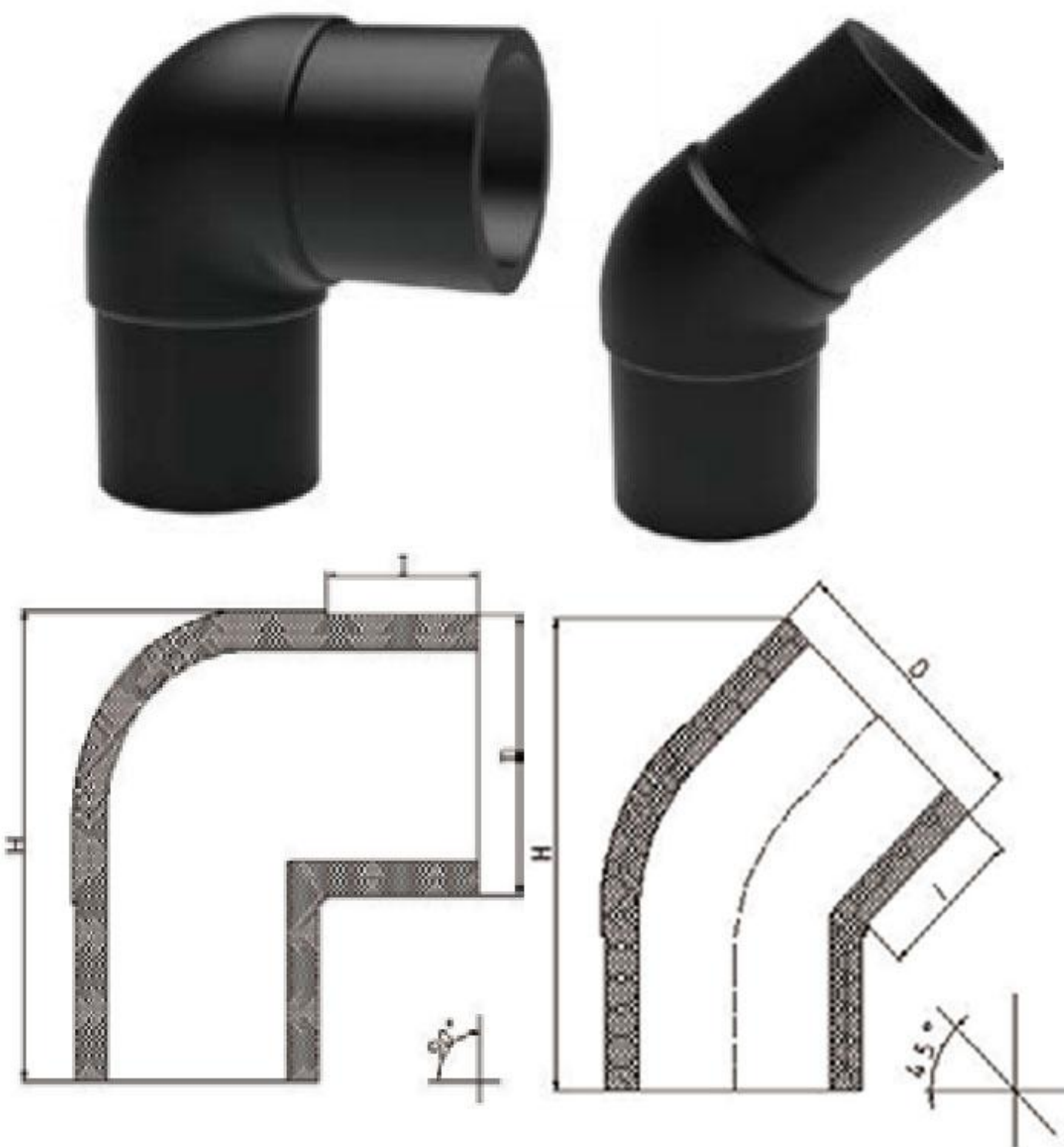


REDUCER COUPLING				
D1(mm)	D2(mm)	L1(mm)	L2(mm)	L(mm)
160	140	70	70	145
180	110	70	70	153
180	160	70	80	156
200	63	70	70	142
200	75	70	70	142
200	90	70	70	157
200	110	70	70	153
200	125	70	70	154
200	140	70	70	154
200	160	70	80	159
225	110	70	70	156
225	160	70	80	162
225	200	70	80	155
250	110	70	70	160
250	125	70	70	157
250	160	70	80	163
250	200	70	80	159
250	225	70	80	155
280	110	80	70	150
280	160	80	80	160
280	200	80	80	160
280	250	80	80	168
315	110	80	70	181
315	125	80	70	180
315	160	80	80	184
315	180	80	80	181
315	200	80	80	178
315	225	80	80	174
315	250	80	80	171
315	280	80	90	180
355	110	80	70	180
355	160	80	80	183
355	200	80	80	177
355	250	80	80	170
355	315	80	90	179

D1(mm)	D2(mm)	L1(mm)	L2(mm)	L(mm)
400	110	90	70	205
400	160	90	80	208
400	200	90	80	202
400	225	90	80	198
400	250	90	80	193
400	280	90	90	199
400	315	90	95	200
400	355	90	95	194
450	315	85	90	175
450	400	85	100	185
500	200	90	80	170
500	250	90	80	170
500	315	90	90	180
500	355	90	90	180
500	400	90	100	190
500	450	90	100	190
560	400	90	100	190
560	500	90	100	190
630	315	90	90	180
630	400	90	100	190
630	500	90	100	190
630	560	90	100	190

Butt Fusion Joint Fittings

90° & 45° Elbow



90° ELBOW			45° ELBOW		
D(mm)	L(mm)	H(mm)	D(mm)	L(mm)	H(mm)
63	65	128	63	64	168
75	65	140	75	63	180
90	65	155	90	63	190
110	65	175	110	63	196
125	70	195	125	66	215
140	75	215	140	74	242
160	75	240	160	79	260
180	85	275	180	79	295
200	100	305	200	80	300
225	108	340	225	108	360
250	108	365	250	100	365
280	112	400	280	108	400
315	112	430	315	100	405
355	100	460	355	100	430
400	100	510	400	101	472
450	150	610	450	125	552
500	150	660	500	125	593
560	155	720	560	125	635
630	158	800	630	125	695
710	170	900	710	170	830
800	170	990	800	170	900

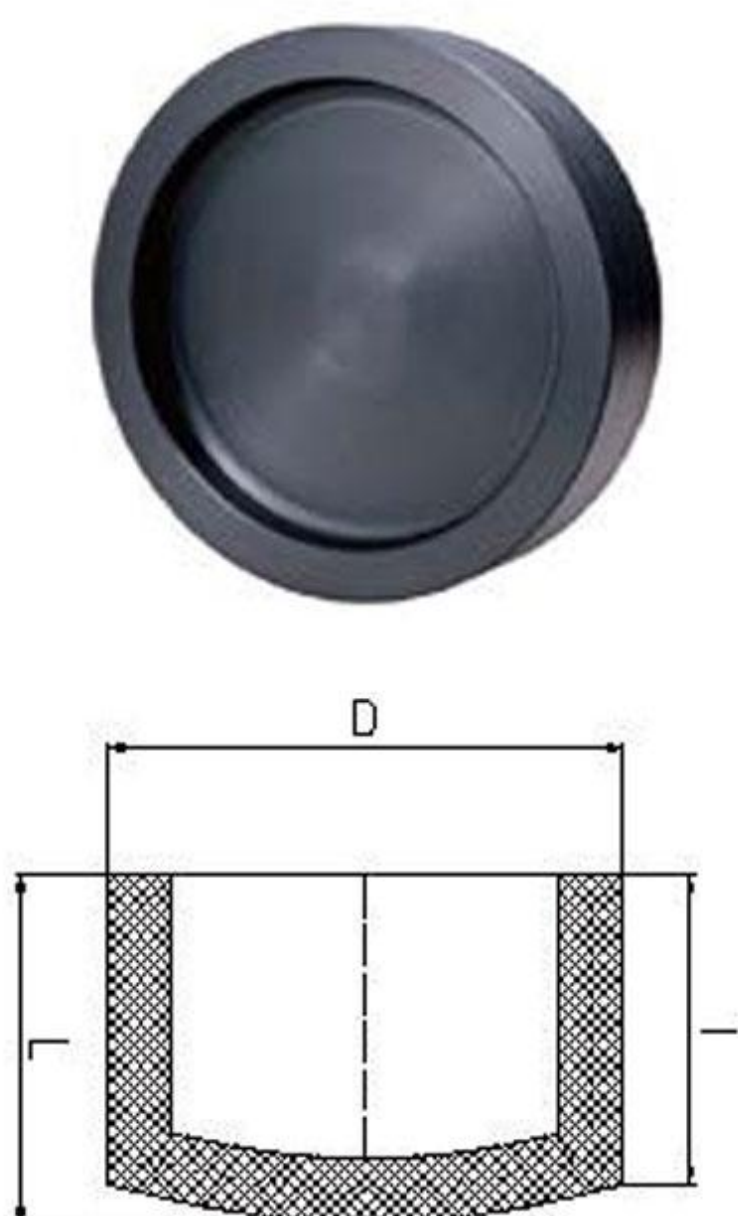
TEE



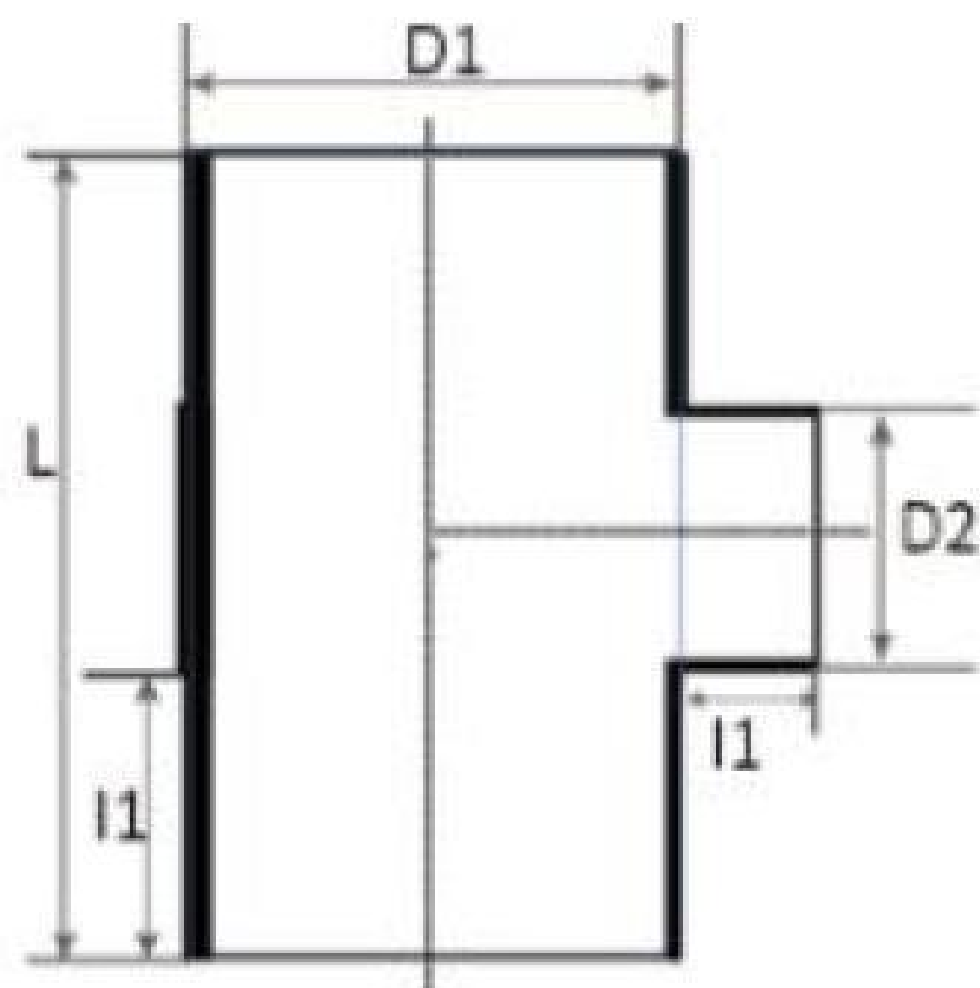
TEE		
D(mm)	L(mm)	H(mm)
63	65	204
75	65	215
90	65	230
110	65	254
125	70	275
140	70	290
160	75	324
180	110	420
200	110	420
225	115	470
250	115	485
280	115	516
315	115	562
355	100	580
400	110	640
450	145	625
500	145	820
560	160	900
630	165	975
710	210	1140
800	230	1260

CAP		
D(mm)	L(mm)	H(mm)
63	43	52
75	44	54
90	64	73
110	60	73
125	80	88
140	83	90
160	69	85
180	80	95
200	75	90
225	70	85
250	102	115
280	110	128
315	105	128
355	110	135
400	102	130
450	110	135
500	110	135
560	110	140
630	110	140
710	120	150
800	120	150
900	120	150
1000	120	150
1200	150	190

CAP



Butt Fusion Joint Fittings



REDUCER TEE

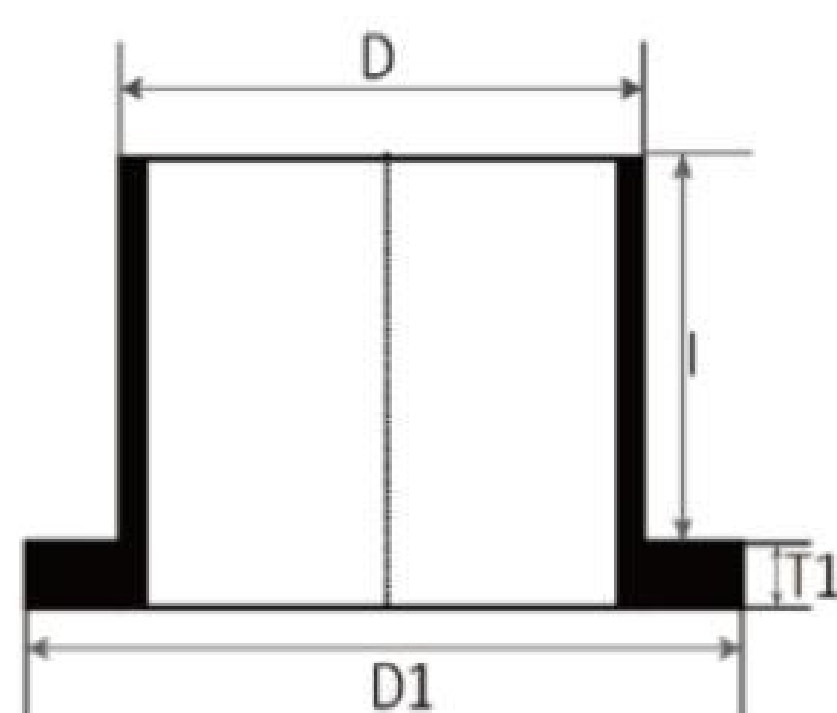
REDUCER TEE									
D1	D2	l1	l2	L	D1	D2	l1	l2	L
75	50	62	62	190	400	110	110	80	355
75	63	64	64	203	400	160	110	120	402
90	50	75	61	212	400	200	110	120	443
90	63	64	63	203	400	225	120	120	510
90	75	66	63	218	400	250	110	120	493
110	50	64	65	191	400	280	120	140	545
110	63	65	62	204	400	315	110	120	556
110	75	63	63	215	400	355	120	160	628
110	90	64	64	230	450	110	160	90	436
125	63	75	70	212	450	160	160	125	485
125	75	75	70	226	450	200	160	125	532
125	90	75	70	240	450	250	160	125	582
125	110	75	70	263	450	315	160	125	556
140	63	75	70	213	450	400	160	160	569
140	75	75	70	226	500	110	160	160	430
140	90	75	70	240	500	160	160	90	488
140	110	75	70	260	500	200	160	125	520
140	125	75	75	278	500	250	160	125	568
160	63	80	70	225	500	315	160	125	640
160	75	80	70	234	500	355	150	160	700
160	90	75	70	254	500	400	150	160	700
160	110	75	80	273	500	450	150	160	780
160	125	80	80	283	560	110	170	90	508
160	140	80	80	298	560	160	170	125	507
180	90	110	80	312	560	200	170	125	545
180	110	110	80	330	560	250	170	125	590
180	160	110	110	382	560	315	170	125	660

Butt Fusion Joint Fittings

200	63	110	70	280	560	400	170	160	740
200	75	110	70	282	560	450	170	160	796
200	90	110	70	301	560	500	170	160	840
200	110	110	70	320	630	110	170	90	459
200	125	95	80	250	630	160	170	125	503
200	140	95	80	368	630	200	170	125	540
200	160	110	110	371	630	225	170	125	586
200	180	110	110	400	630	250	170	125	586
225	110	110	85	356	630	315	170	125	665
225	160	115	110	387	630	400	170	160	750
225	200	115	110	425	630	450	170	160	797
250	110	110	80	338	630	500	170	160	845
250	125	110	80	345	710	110	210	160	530
250	160	115	110	396	710	160	210	160	585
250	200	115	110	434	710	200	210	160	630
250	225	115	110	460	710	250	190	160	630
280	110	120	115	348	710	315	195	160	710
280	160	120	115	400	710	400	195	175	790
280	200	120	115	436	710	500	195	200	890
280	250	120	115	490	710	630	195	210	1020
315	110	120	80	357	800	110	230	160	590
315	160	120	120	408	800	160	210	160	590
315	200	120	120	445	800	200	210	160	630
315	225	110	120	472	800	250	230	160	720
315	250	120	120	496	800	315	230	160	800
315	280	120	120	525	800	355	230	180	850
355	110	110	80	333	800	400	230	180	850
355	160	110	110	381	800	500	195	210	1020
355	200	110	110	420	800	630	230	210	1100
355	250	110	110	470	800	710	195	210	1100
355	315	110	110	538					

Butt Fusion Joint Fittings

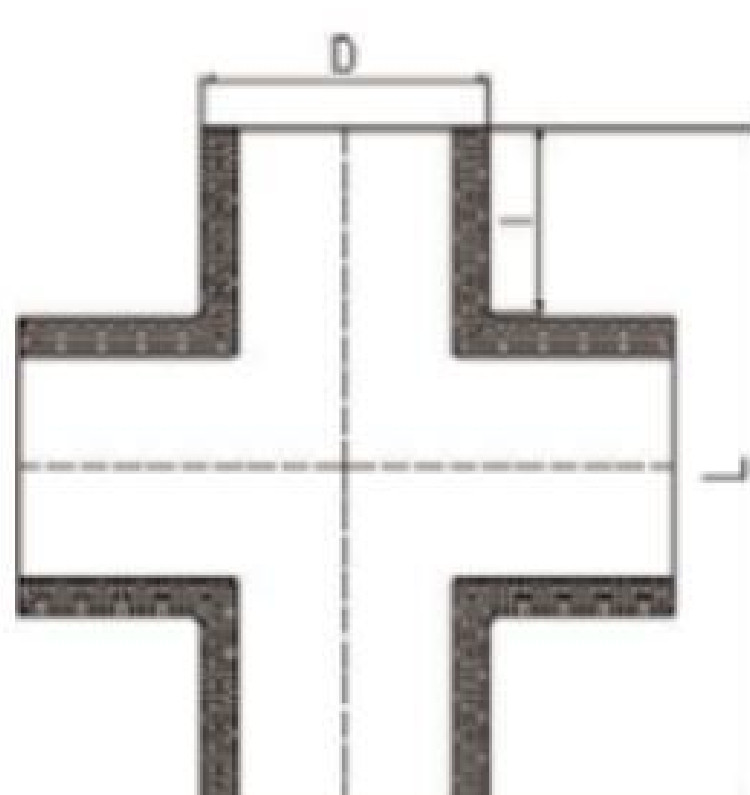
Stub End



STUB END

D(mm)	I(mm)	D1(mm)	T1(mm)
63	78	94	9
75	79	108	10
90	81	124	12
110	80	149	14
125	90	160	15
140	88	179	16
160	95	210	18
180	95	219	20
200	94	263	22
225	105	269	25
250	171	319	27
280	172	325	30
315	173	370	33
355	173	427	37
400	172	480	41
450	165	515	46
500	215	575	51
560	120	630	57
630	209	690	64
710	247	800	71
800	255	900	79
900	265	998	89
1000	258	1100	97
1200	230	1300	118

Cross



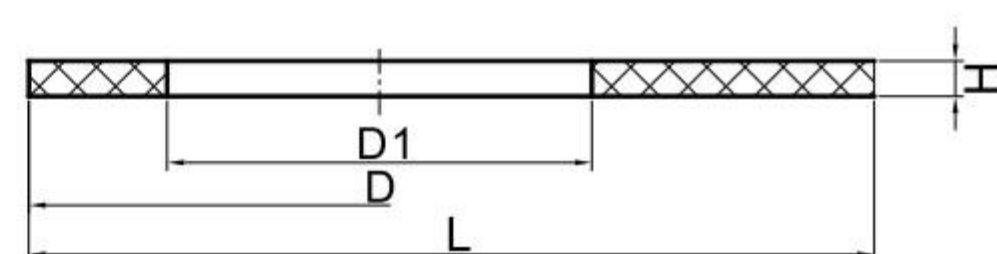
CROSS

D	I	L	SDR
63	60	184	11
75	65	203	11
90	75	240	11
110	80	260	13.6
125	85	295	13.6
160	80	330	13.6
200	115	440	13.6
225	115	460	13.6
250	120	493	13.6

315	120	558	17
355	140	640	17
400	140	685	17
450	140	740	17
500	150	810	17
560	150	875	17
630	160	960	17
710	210	1140	17
800	235	1280	17

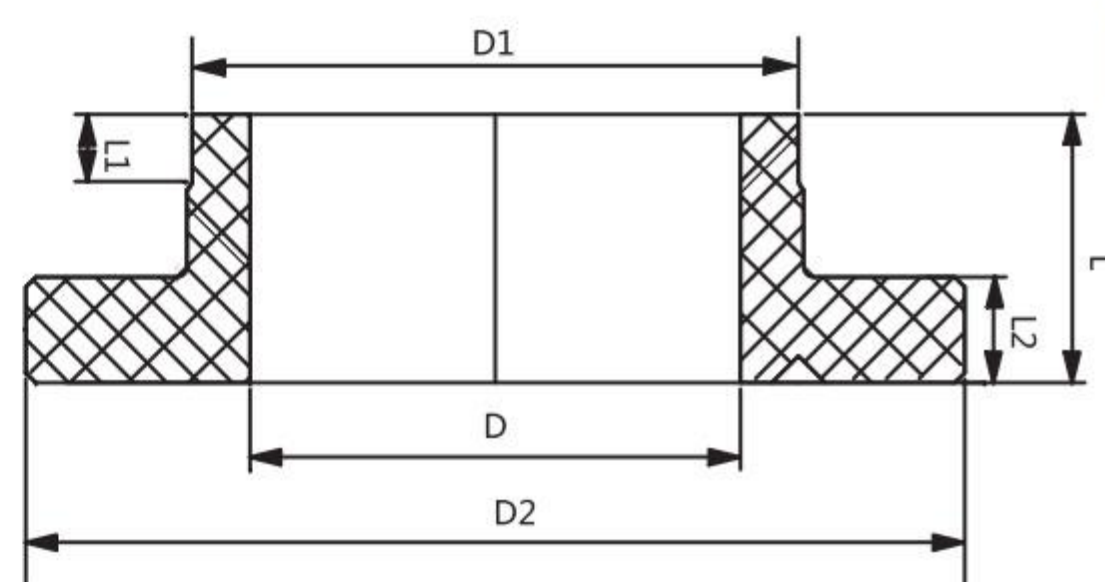
Butt Fusion Joint Fittings

Rubber Gasket



SAP Number	Size(mm)	D1	D	L	H	PCS/CTN
8010040783	75					
8010040785	90					
8010040767	110					
8010040768	125	102	162	188	3.5	
8010042692	140					
8010040769	160					
8010040770	180	148	212	238.5	3.5	
8010040771	200					
8010040772	225	184	273	299.5	3.5	
8010040773	250					
8010040774	280	229	320	348.5	3.5	
8010040775	315					
8010040776	355					
8010040777	400					
8010040778	450					
8010040779	500					
8010040780	560	516	690	716	5	
8010040781	630					
8010040782	710	630	810	837	5	
8010040784	800	738	915	942.5	5	
	900	770	1005	1085.5	6	
	1000	860	1110	1185	6	
8010042261	1200	1045	1328	1419	6	
	1400	1280	1510	1595	6	
	1600	1465	1710	1795	6	

Long-turn Flange (One Piece)



SAP Number	Size(mm)	L1	L2	L	D1	D2	D	PCS/CTN
8010043164	125	20	26.5	80	125	102	215	



[Features]

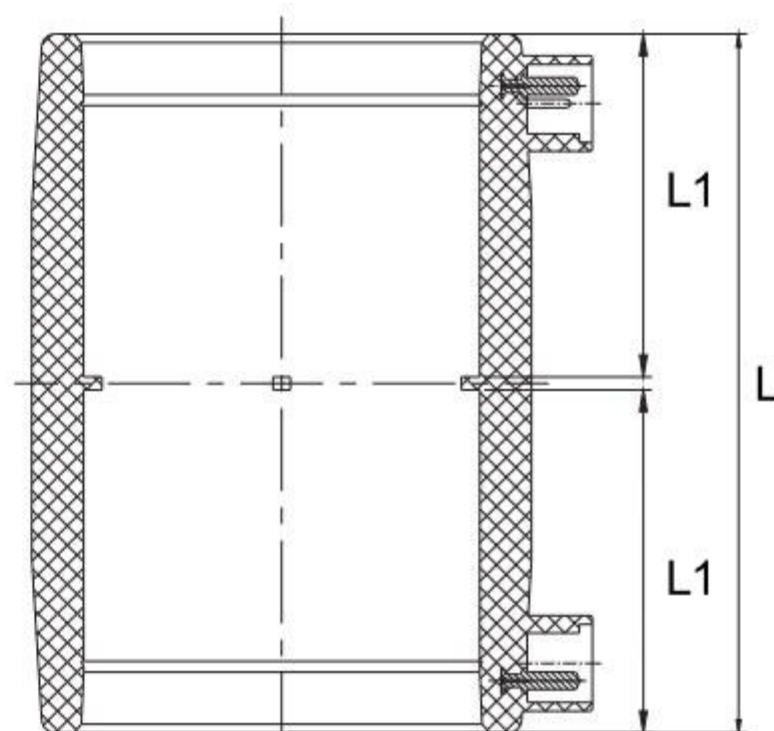
- **Material:** PE 100
- **Size:** full 20mm through 400mm availability
- **Pressure Rating:** 1.6MPa or other nominal pressures available upon request
- **Standard:** ISO 4427-3, EN 12201-3, BS EN 12201-3 AS/NZS 4129 BS 6920
- **Color:** blue, black or other colors available upon request
- **Joint:** joining pipe and electro fusion fittings by electro fusion joint

[Advantages]

- **Non-toxic:** no heavy metal additives, would not be covered with dirt or contaminated by bacterium
- **Corrosion Resistance:** resist chemical matters and electron chemical corrosion
- **Low Installation Costs:** light weight and ease of installation can reduce installation costs
- **High Flow Capacity:** smooth interior walls result in low pressure loss and high volume
- **Longevity:** more than 50 years under proper use

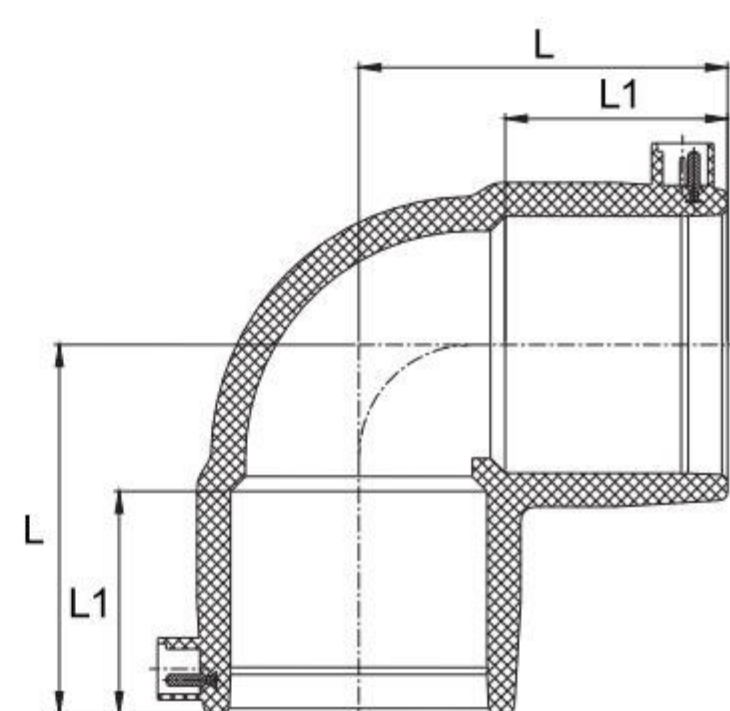
Electro Fusion Fittings

E/F Coupling



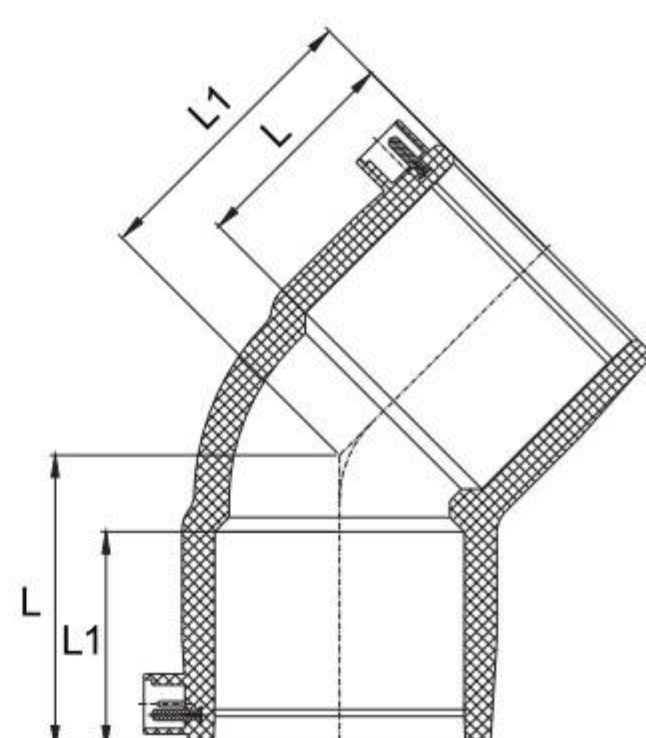
SAP No. (black)	Size(mm)	L	L1	PCS/CTN
8010040318	20	84	41	350
8010040321	25	84	41	320
8010040325	32	90	44	240
8010040327	40	100	49	180
8010040330	50	113	55	120
8010040332	63	129	63	80
8010040333	75	143	70	48
8010040334	90	161	79	32
8010040314	110	167	82	18
8010040315	125	177	87	12
8010040316	160	199	98	6
8010040317	180	213	105	4
8010040319	200	227	112	4
8010040320	225	243	120	2
8010040322	250	261	129	2
8010040323	280	273	135	2
8010040324	315	304	150	1
8010040326	355	332	164	1
8010040328	400	362	179	1
8010040329	450	394	194.5	
8010040331	500	425	210	
8010042123	630			

E/F 90° Elbow



SAP No. (black)	Size(mm)	L	L1	PCS/CTN
8010040379	20	54	41	
8010040381	25	56.2	41	240
8010040384	32	65	44	160
8010040385	40	74	49	100
8010040387	50	86	55	60
8010040388	63	100	63	40
8010040389	75	114	70	24
8010040390	90	131	79	16
8010040375	110	145	82	9
8010040376	125	159	87	6
8010040377	160	190	96	4
8010040378	180	206	105	2
8010040380	200	225	112	2
8010040382	250	265	129	1
8010040383	315	320	150	
8010040386	400	395	179	

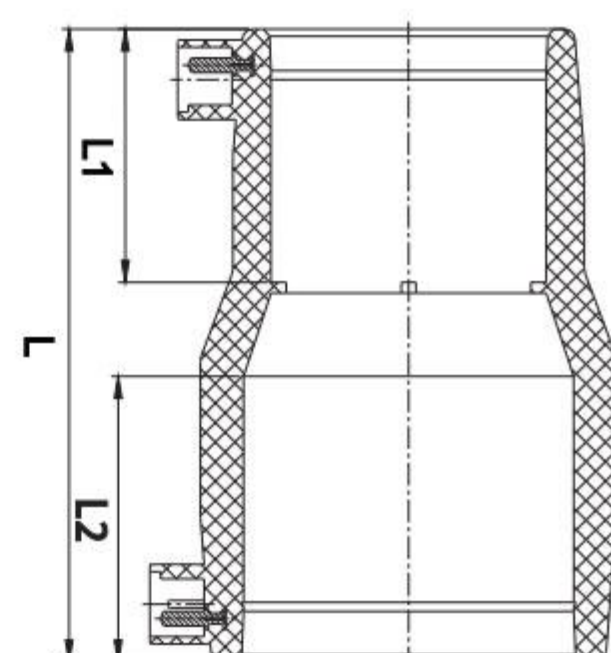
E/F 45° Elbow



SAP No. (black)	Size(mm)	L	L1	PCS/CTN
8010040362	32	56	44	180
8010040363	40	64	49	120
8010040365	50	73	55	80
8010040366	63	85	63	50
8010040367	75	95	70	48
8010040368	90	107	79	20
8010040355	110	116	82	12
8010040356	125	127	87	8
8010040357	160	150	98	4
8010040358	180	157	105	3
8010040359	200	170	112	2
8010040360	250	202	129	1
8010040361	315	238	150	
8010040364	400	280	179	

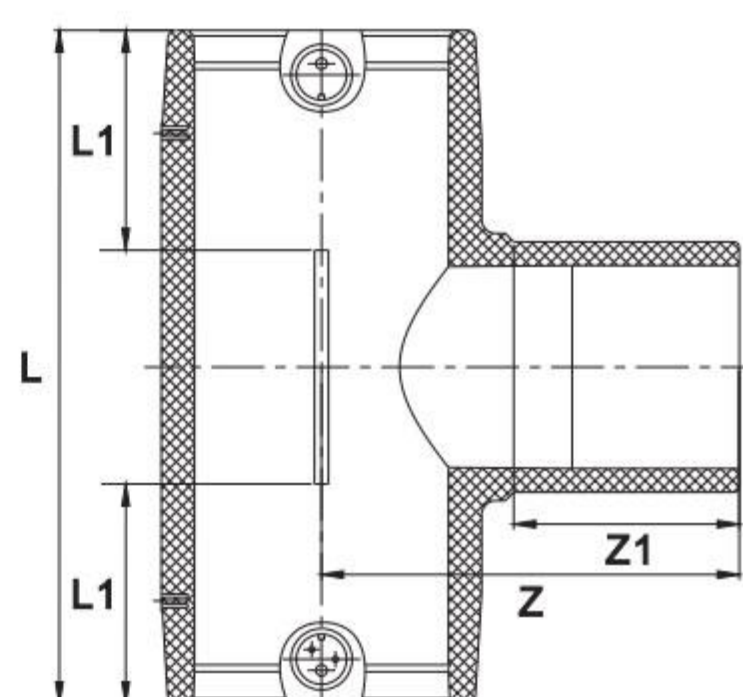
Electro Fusion Fittings

E/F Reducer



SAP No. (black)	Size(mm)	L	L1	L2	PCS/CTN
8010040493	32×25				
8010040496	40×32	105	44	49	150
8010040497	50×32	115	44	55	126
8010040498	50×40	115	49	55	100
8010040499	63×32	130	44	63	72
8010040500	63×40	130	49	63	72
8010040501	63×50	130	55	63	70
8010040502	75×63	145	63	70	48
8010040503	90×63	175	63	79	28
8010040504	90×75	175	70	79	28
8010040474	110×50	160	55	82	33
8010040475	110×63	180	63	82	20
8010040476	110×75	180	70	82	24
8010040477	110×90	180	79	82	24
8010040478	125×90	195	79	85	14
8010040481	160×90	224	79	98	6
8010040479	160×110	224	82	98	6
8010040485	200×63	250	63	112	5
8010040486	200×90	250	79	112	
8010040482	200×110	250	82	112	4
8010040483	200×160	250	98	112	4
8010040487	250×110	280	82	129	3
8010040488	250×160	280	98	129	2
8010040489	250×200	280	112	129	2
8010040490	315×160	320	98	150	
8010040491	315×200	320	112	150	1
8010040492	315×250	320	129	150	1
8010040494	400×200	370	112	179	
8010040495	400×315	370	129	179	

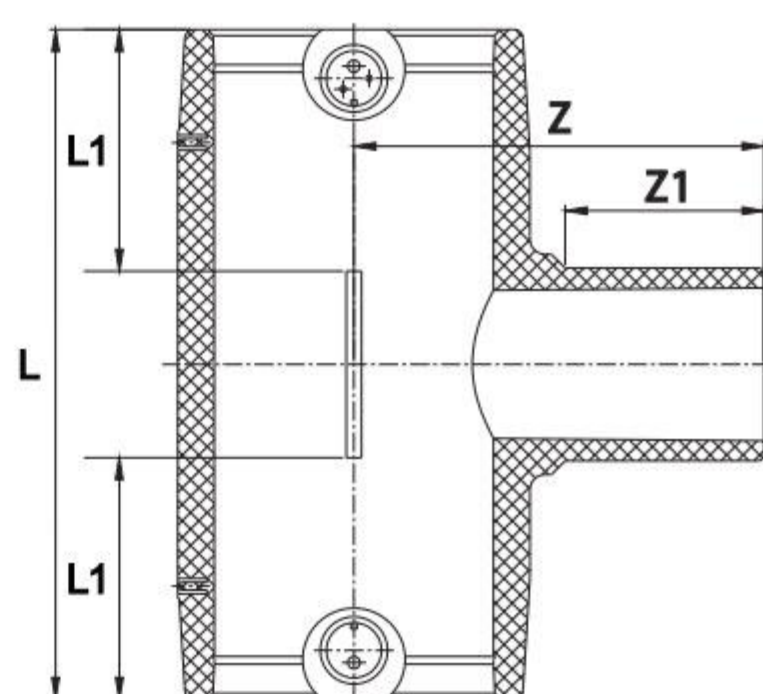
E/F Tee



SAP No. (black)	Size(mm)	L	L1	Z1	Z	PCS/CTN
8010040289	20	98	41	41	60.5	180
8010040291	25	102	41	41	63	
8010040294	32	118	44	46	73	120
8010040295	40	136	49	51	84	70
8010040297	50	157	55	57	95	48
8010040298	63	190	63	65	115	30
8010040299	75	215	70	72	130	20
8010040300	90	242	79	81	150	12
8010040285	110	266	82	84	167	7
8010040286	125	290	87	89	181	5
8010040287	160	338	98	105	222	3
8010040288	180	368	105	107	237	2
8010040290	200	398	112	115	255	2
8010040292	250	472	129	134	301	1
8010040293	315	567	150	150	360	
8010040296	400	690	179	178	440	

Electro Fusion Fittings

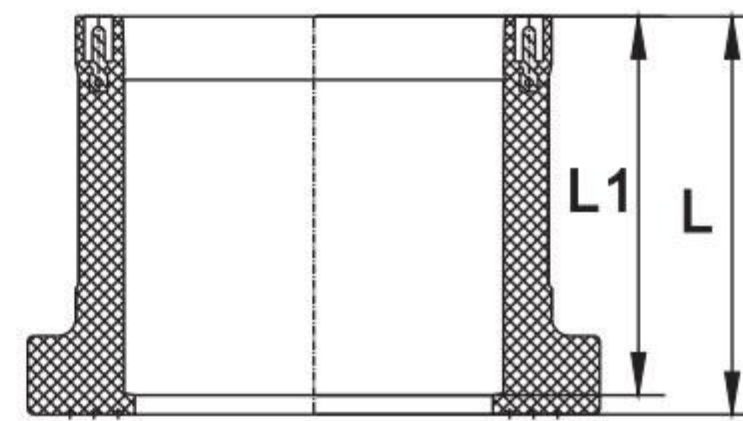
E/ F Reducing Tee



SAP No. (black)	Size(mm)	L	L1	Z1	Z	PCS/CTN
8010040434	32×20	107	44	43	70	130
8010040435	32×25	111.5	44	43	70	130
8010040441	40×20	118.5	49	43	76	90
8010040442	40×25	123	49	43	76	90
8010040443	40×32	129	49	46	79	90
8010040444	50×20	130.5	55	42	79.5	70
8010040445	50×25	135.8	55	43	81	65
8010040446	50×32	142.2	55	46	84	60
8010040447	50×40	149	55	51	89	60
8010040448	63×20	153	63	43	90	40
8010040449	63×25	158	63	43	90	40
8010040450	63×32	165.5	63	46	96	40
8010040451	63×40	172.5	63	51	101	40
8010040452	63×50	180.5	63	57	107	36
8010040453	75×40	186.3	70	51	109	
8010040454	75×50	194.2	70	57	115	
8010040455	75×63	204	70	65	123	
8010040456	90×40	197	79	51	120	16
8010040457	90×50	209.5	79	57	126	16
8010040458	90×63	219	79	65	134	15
8010040459	90×75	230	79	72	141	14
8010040403	110×50	218	82	57	140	10
8010040404	110×63	226	82	65	148	10
8010040405	110×75	238	82	72	155	9
8010040406	110×90	250	82	81	164	9
8010040408	125×63	239	87	65	160	6
8010040409	125×75	249.6	87	72	167	6
8010040410	125×90	261.6	87	81	175	6
8010040407	125×110	278.6	87	84	178	6
8010040412	160×50	249	98	57	174	4
8010040413	160×63	259	98	65	182	4
8010040414	160×75	270	98	72	189	3
8010040415	160×90	282	98	81	198	3
8010040411	160×110	298	98	84	201	3
8010043150	180×160	352	105	100	230	
8010040418	200×50	308	112	70	216	2
8010040419	200×63	308	112	70	216	2
8010040420	200×75	308	112	81	227	
8010040421	200×90	308	112	81	227	
8010040416	200×110	365	112	100	245	2
8010040417	200×160	365	112	100	245	2
8010040425	250×50	330	129	80	252	
8010040426	250×63	330	129	80	252	
8010040427	250×75	330	129	80	254	
8010040428	250×90	358	129	90	265	
8010040422	250×110	358	129	90	265	1
8010040423	250×160	430	129	110	291	1
8010040424	250×200	430	129	120	291	1
8010040433	315×90	440	150	100	325	
8010040429	315×110	440	150	100	325	
8010040430	315×160	440	150	105	325	
8010040431	315×200	514	150	120	346	
8010040432	315×250	514	150	134	346	
8010040436	400×110	453	179	82	355	
8010040437	400×160	526	179	110	390	
8010040438	400×200	526	179	112	390	
8010040439	400×250	619	179	134	415	
8010040440	400×315	619	179	163	425	

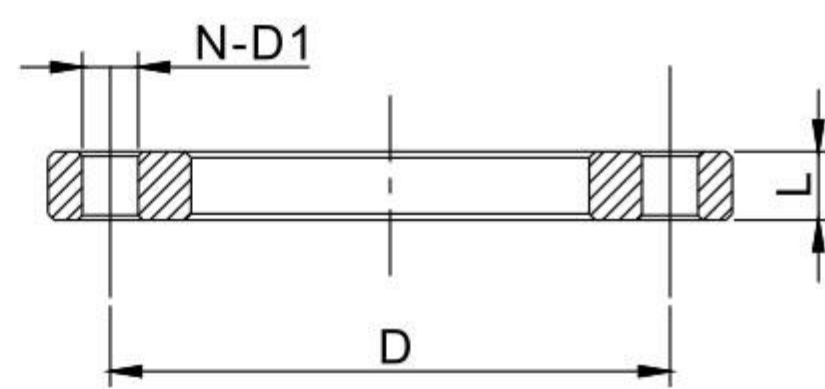
Electro Fusion Fittings

E/F Stub Flange



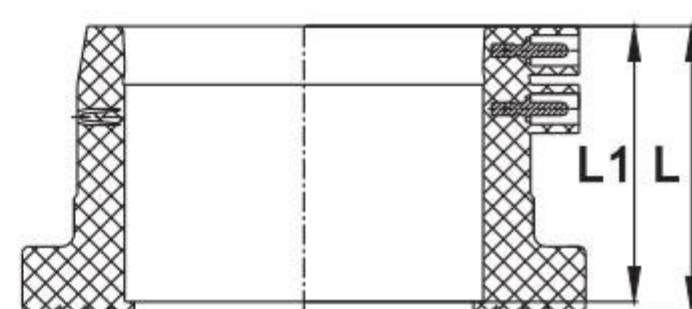
SAP No. (black)	Size(mm)	L	L1	PCS/CTN
8010040277	110	129	126	20
8010040278	160	129	124	7
8010040279	200	139	135	6
8010040280	250	143	138	3
8010040281	315	159	150	1
8010040282	400	185	175	
8010040283	500	220	210	
8010043074	630	288	255	

E/F Flange (Steel Tray)



SAP No. (black)	Size(mm)	N	D1	D	L	PCS/CTN
8010040267	110	8	18	180	22	3
8010040268	160	8	22	240	24	1
8010040269	200	12	22	295	26	1
8010040270	250	12	26	355	29	1
8010040271	315	12	26	410	32	1
8010040273	400	16	30	525	36	1
8010040274	500	20	33	650	44	
8010043076	630	20	36	770	54	

E/F Stub Flange (short)



SAP No. (black)	Size(mm)	L	L1	PCS/CTN
8010043075	110	88	85	

Electro Fusion Fittings

E/F Straight Saddle



SAP No. (black)	Size(mm)	PCS/CTN
8010042697	90x63	
8010042698	110x63	30
8010042699	125X63	
8010042700	160X63	30
8010042702	200X63	
8010042703	200X90	12
8010042705	250X90	12
8010042708	315X110	4
8010042709	315X160	3

E/F Tapping Saddle



SAP No. (black)	Size(mm)	PCS/CTN
8010042711	63x32	
8010042714	90x63	
8010042716	110x40	
8010042717	110x63	
8010042721	160x63	
8010042726	200x90	
8010042727	250x90	
8010042720	160x32	12

E/F Stop Saddle



SAP No. (black)	Size(mm)	PCS/CTN
8010041359	90	
8010041353	110	
8010041354	125	
8010041355	160	
8010041356	200	
8010041357	250	
8010041358	315	8



[Features]

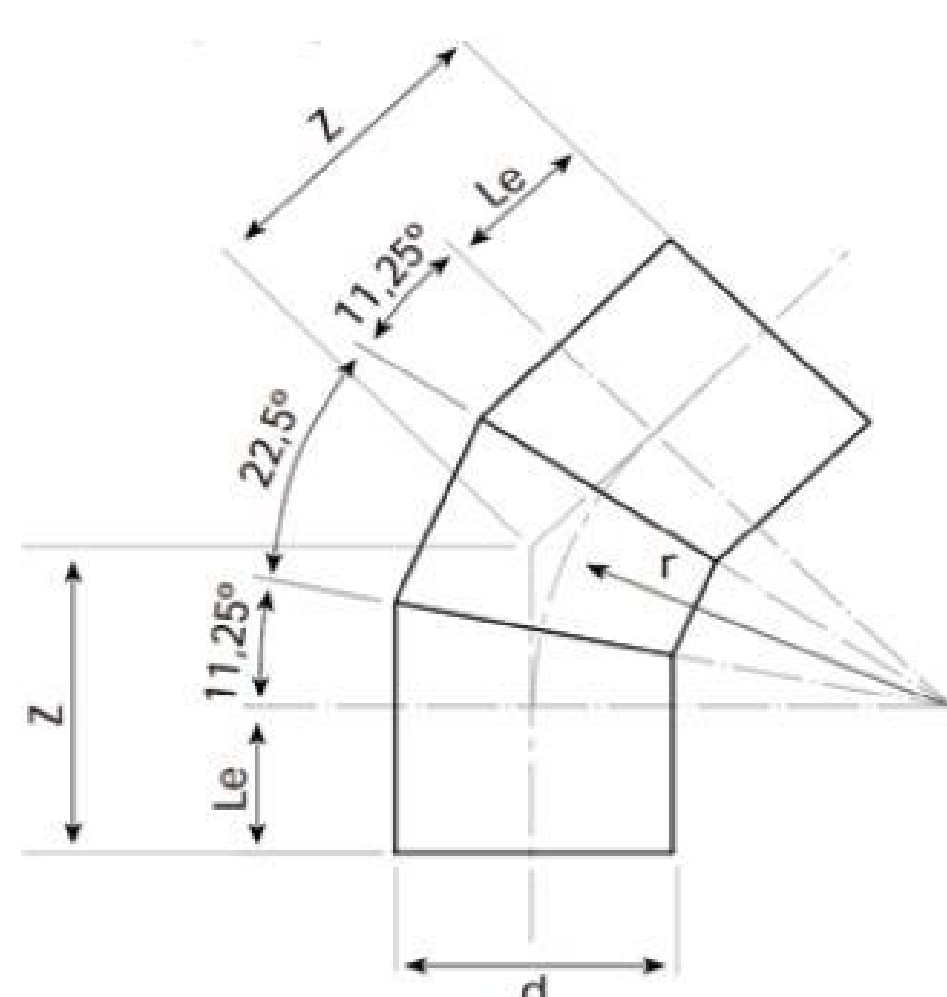
- **Material:** PE 100
- **Size:** full 110mm through 1600mm availability
- **Pressure Rating:** 0.6MPa, 1.0MPa, 1.6MPa, 2.0MPa, 2.5MPa or other nominal pressures available upon request
- **Standard:** ISO 4427-3 EN 12201-3 BS EN 12201-3 BS 6920
- **Color:** blue, black with blue stripes or other colors available upon request
- **Angles:** various angles available upon request
- **Joint:** joining pipe and fabricated fittings by butt fusion joint

[Advantages]

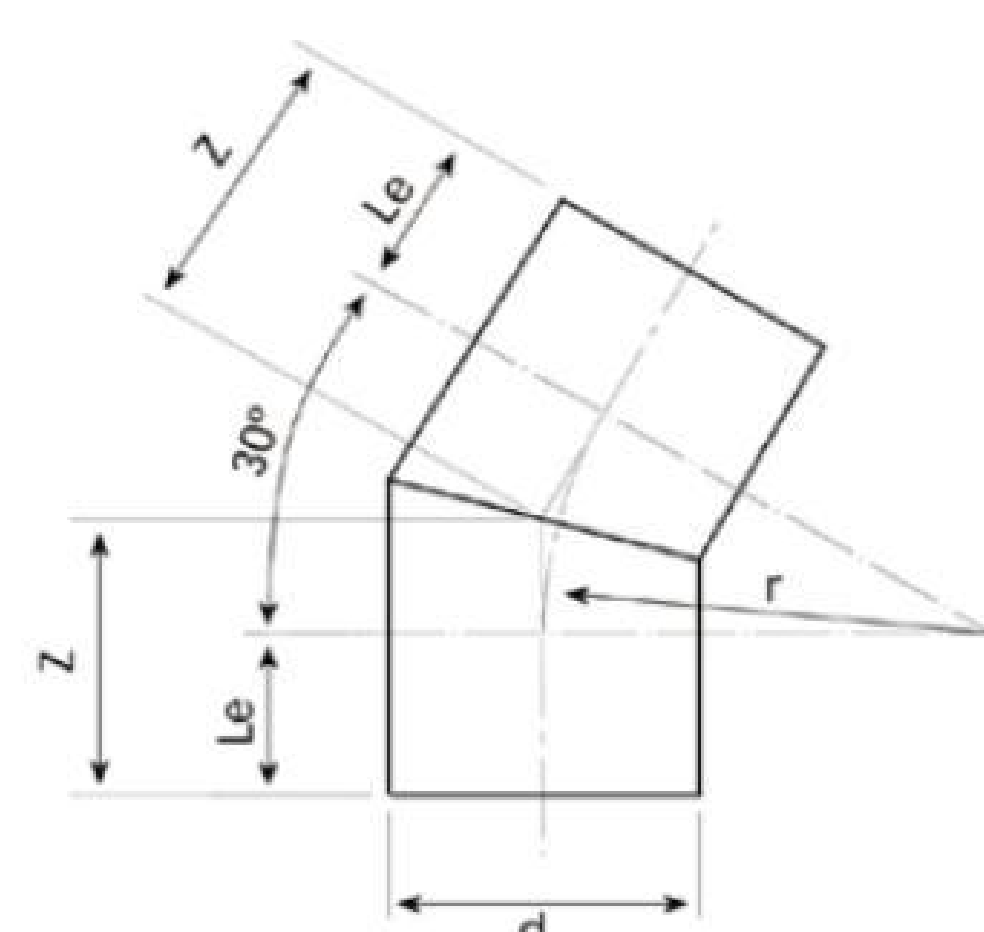
- **Non-toxic:** no heavy metal additives, would not be covered with dirt or contaminated by bacterium
- **Corrosion Resistance:** resist chemical matters and electron chemical corrosion
- **Low Installation Costs:** light weight and ease of installation can reduce installation costs
- **High Flow Capacity:** smooth interior walls result in low pressure loss and high volume
- **Longevity:** more than 50 years under proper use

FABRICATED ELBOW 45 °(± 2 °) AND ELBOW 30°(± 2 °)

Elbow 45°



Elbow 30°



Diameter (d)	r ⁽¹⁾	Le min	Z min 45°	Z min 30°
90	135	100	156	136
110	165	150	218	194
125	188	150	228	200
140	210	150	237	206
160	240	150	249	214
180	270	150	262	222
200	300	150	274	230
225	338	150	290	241
250	375	250	412	350
280	420	250	424	362
315	473	300	498	428
355	533	300	520	443
400	600	300	548	461
450	675	300	580	481
500	750	350	665	551
560	840	350	698	575
630	945	350	741	603
710	1065	350	792	636
800	1200	350	847	672
900	1350	400	960	762
1000	1500	400	1022	802
1200 ⁽²⁾	1800	400	1146	882
1400 ⁽²⁾	2100	400	1270	963
1600 ⁽²⁾	2400	400	1394	1043

1) $r \approx 1.5d$

2) Values according ISO 4427-2 and ISO4427-3 standard

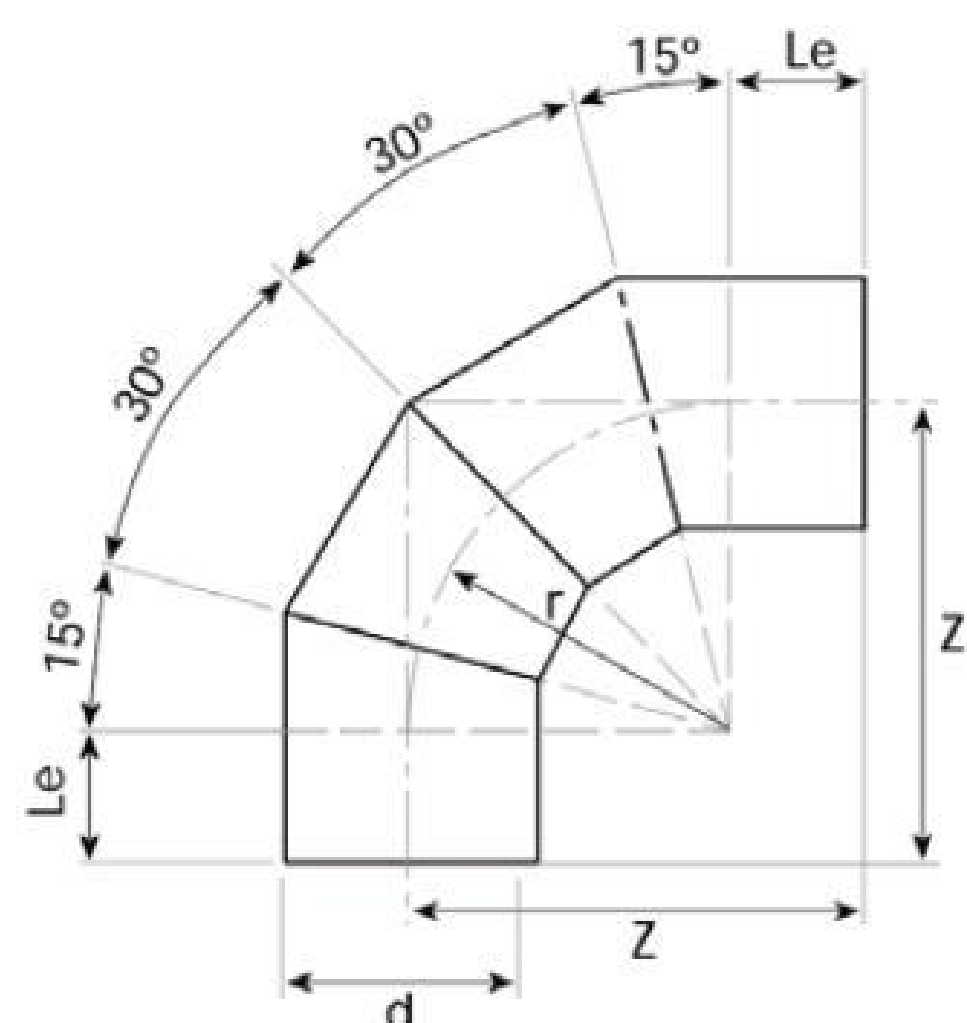
NOTE:

.Can be manufactured in all PN (PN6-PN25) nominal pressures.

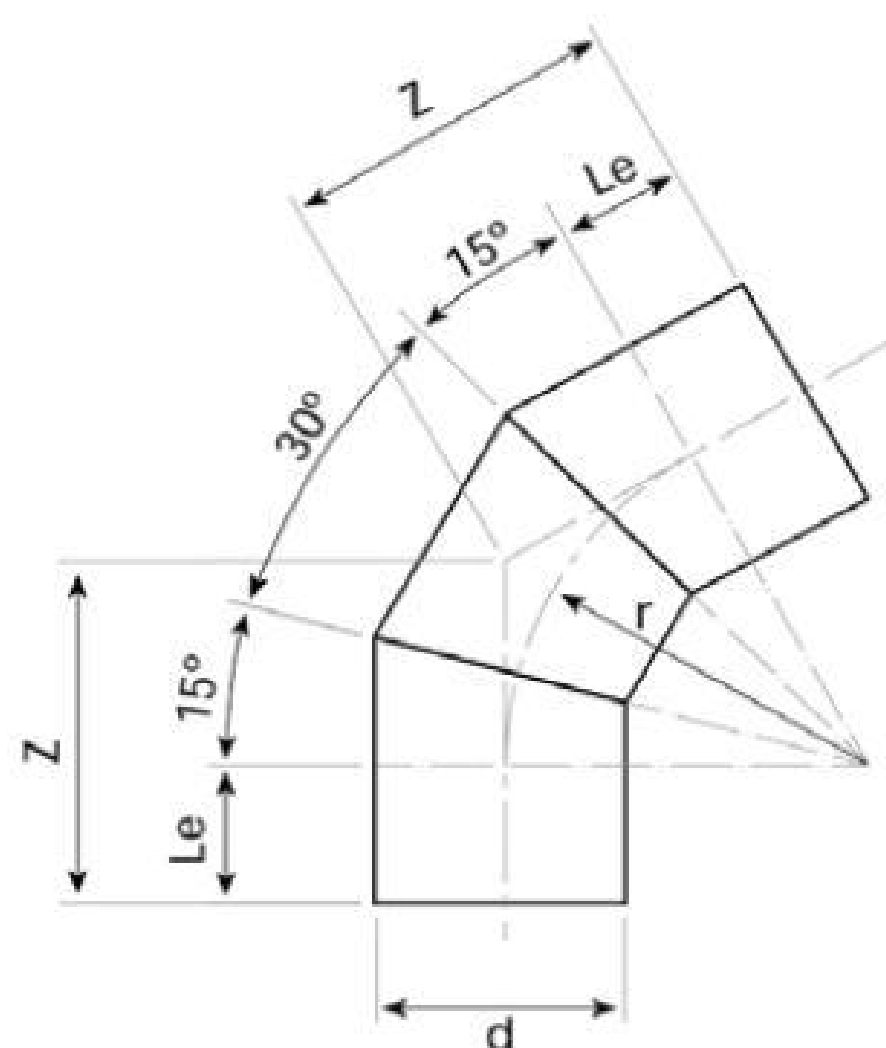
.Other sizes and specifications can be customized upon request

Fabricated ELBOW 90 °(± 2 °) AND ELBOW 60°(± 2 °)

Elbow 90°



Elbow 60°



Diameter (d)	r (1)	Le min	Z min 90°	Z min 60°
90	135	100	235	178
110	165	150	315	245
125	188	150	338	258
140	210	150	360	271
160	240	150	440	288
180	270	150	470	305
200	300	150	500	323
225	338	150	538	345
250	375	250	625	466
280	420	250	670	492
315	473	300	773	576
355	533	300	833	608
400	600	300	900	646
450	675	300	975	689
500	750	350	1100	783
560	840	350	1190	835
630	945	350	1295	896
710	1065	350	1415	965
800	1200	350	1550	1043
900	1350	400	1750	1179
1000	1500	400	1900	1266
1200 (2)	1800	400	2200	1439
1400 (2)	2100	400	2500	1612
1600 (2)	2400	400	2800	1786

1) $r=1.5d$

2) Values according ISO 4427-2 and ISO4427-3 standard

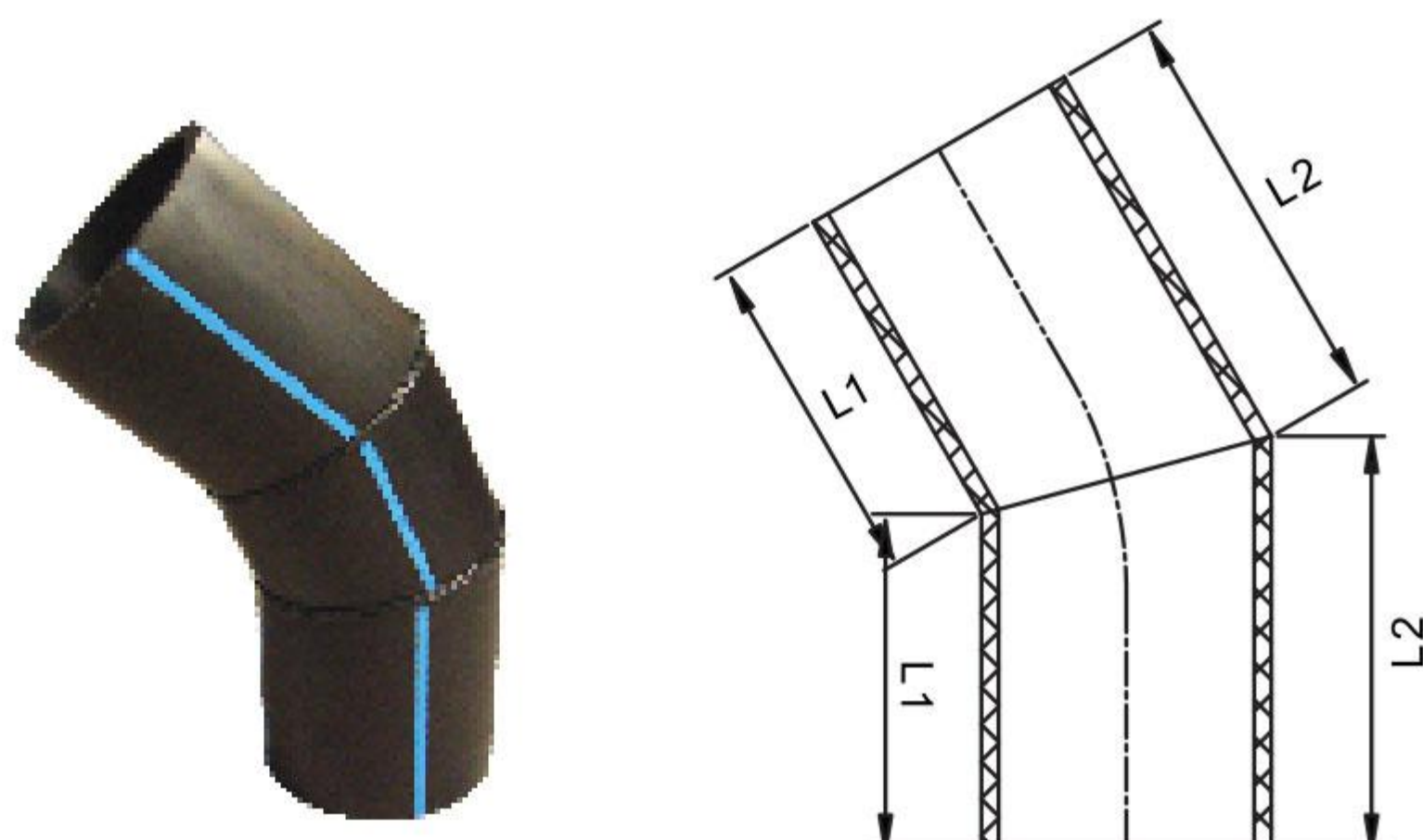
NOTE:

.Can be manufactured in all PN (PN6-PN25) nominal pressures.

.Other sizes and specifications can be customized upon request

Fabricated Fittings

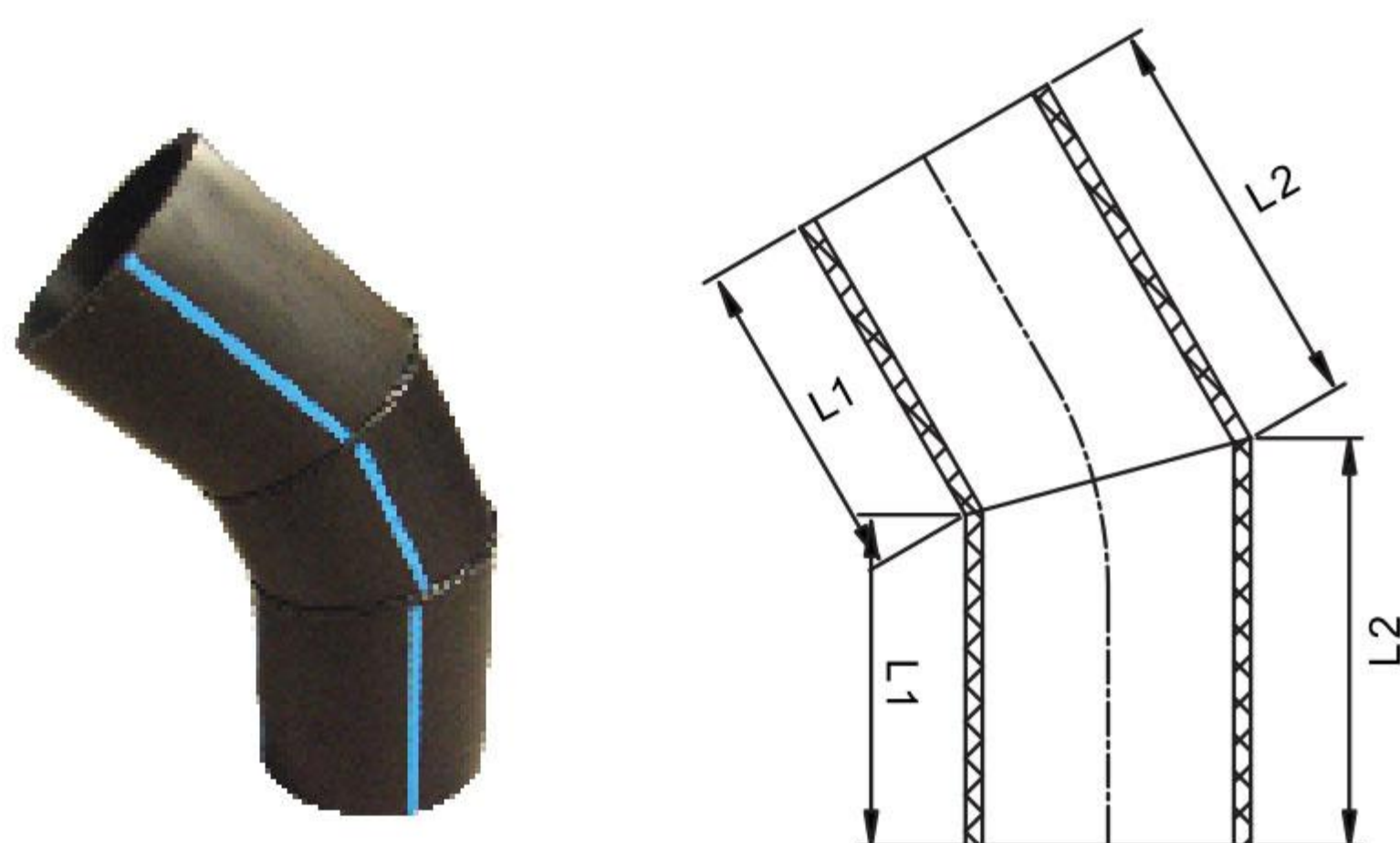
Fabricated 11. 25° Elbow



SAP No. (black)		Size (mm)	L1	L2	PCS/CTN
1.0 MPa	1.6MPa				
8010041614	8010041432	125			
	8010041427	180			
8010042661		200			
8010042660	8010043221	250			
	8010041429	315			
	8010043153	630	540	602	

Nominal Pressure is available in 0.6MPa, 1.0MPa and 1.6MPa.

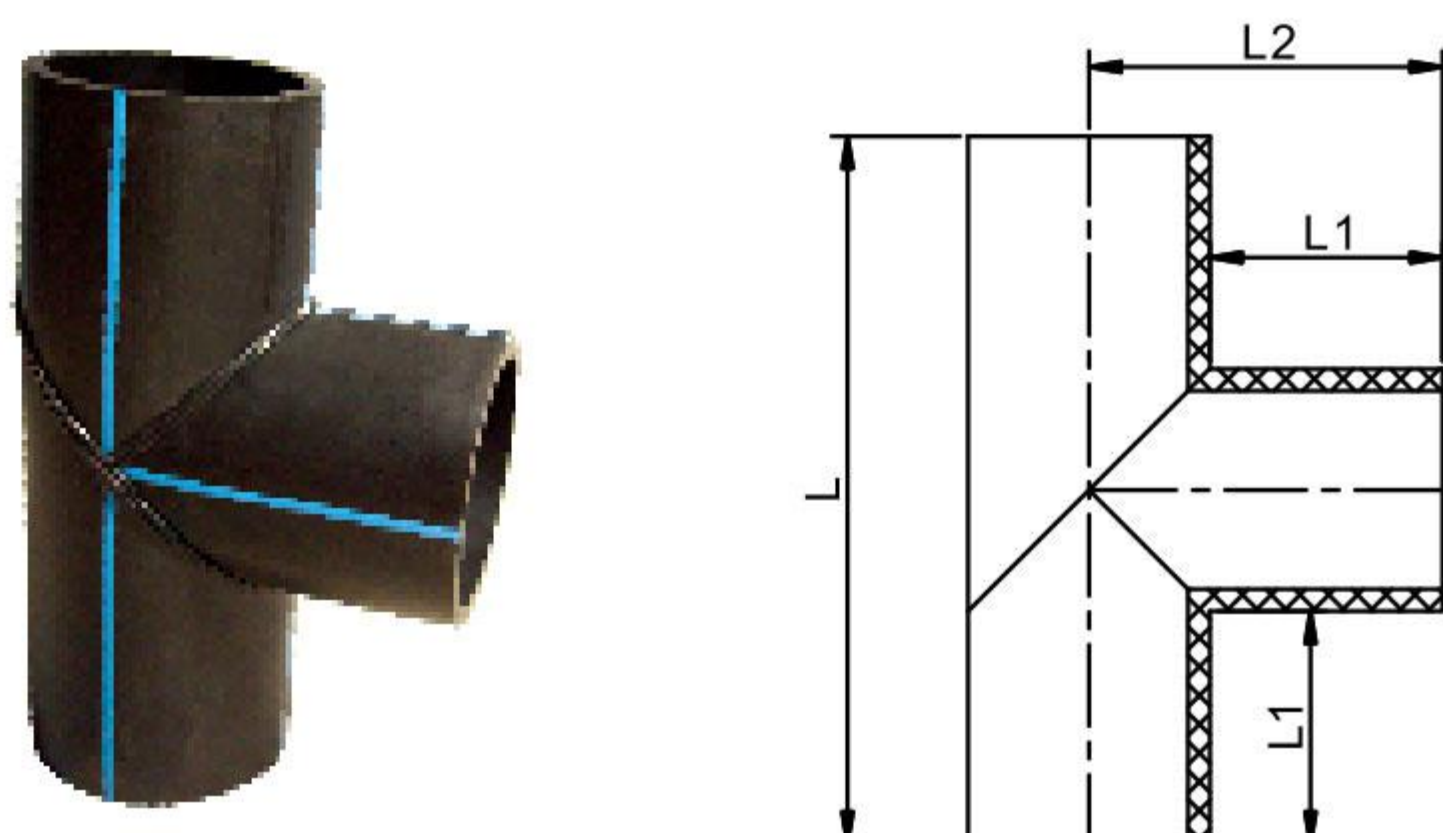
Fabricated 22.5° Elbow



SAP No. (black)		Size (mm)	L1	L2	PCS/CTN
1.0 MPa	1.6MPa				
8010043213	8010041570	90			
8010041611	8010043173	110			
8010041612	8010040986	125			
8010040981	8010042995	160			
	8010040987	180			
8010040982	8010043154	200			
8010043295	8010041430	280			
8010040983	8010040988	315			
	8010040989	450			
8010040984	8010043152	630			
8010040985		800			
		1200	680	919	

Nominal Pressure is available in 0.6MPa, 1.0MPa and 1.6MPa.

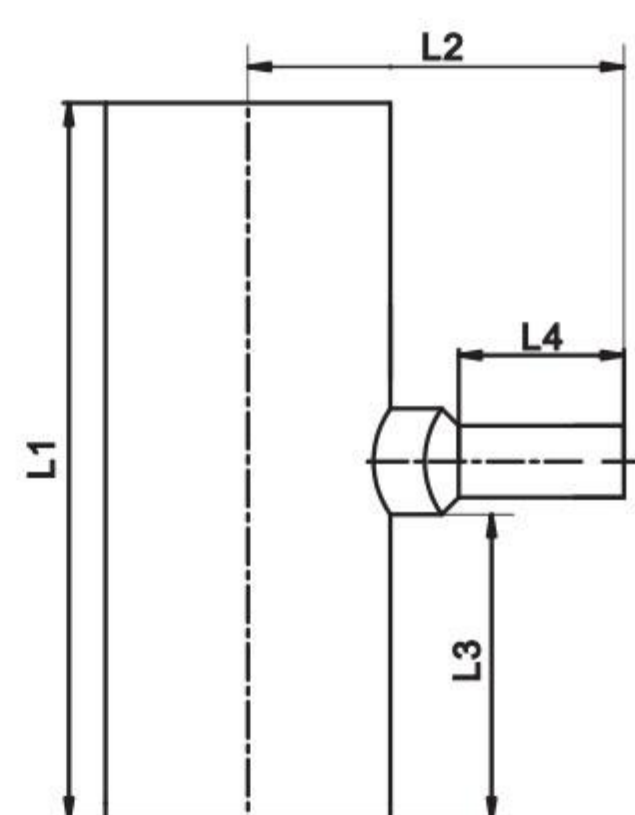
Fabricated Tee



SAP No. (black/1.6MPa)	Size (mm)	L1	L2	L	PCS/CTN
8010040926	315	300	460	920	
8010040927	355	300	480	960	
8010040928	400	300	500	1000	
8010040929	450	305	530	1060	
8010040930	500	350	600	1200	
8010040931	560				
8010043113	630	350	665	1330	

Nominal Pressure is available in 0.6MPa, 1.0MPa and 1.6MPa.

Fabricated Reducing Tee

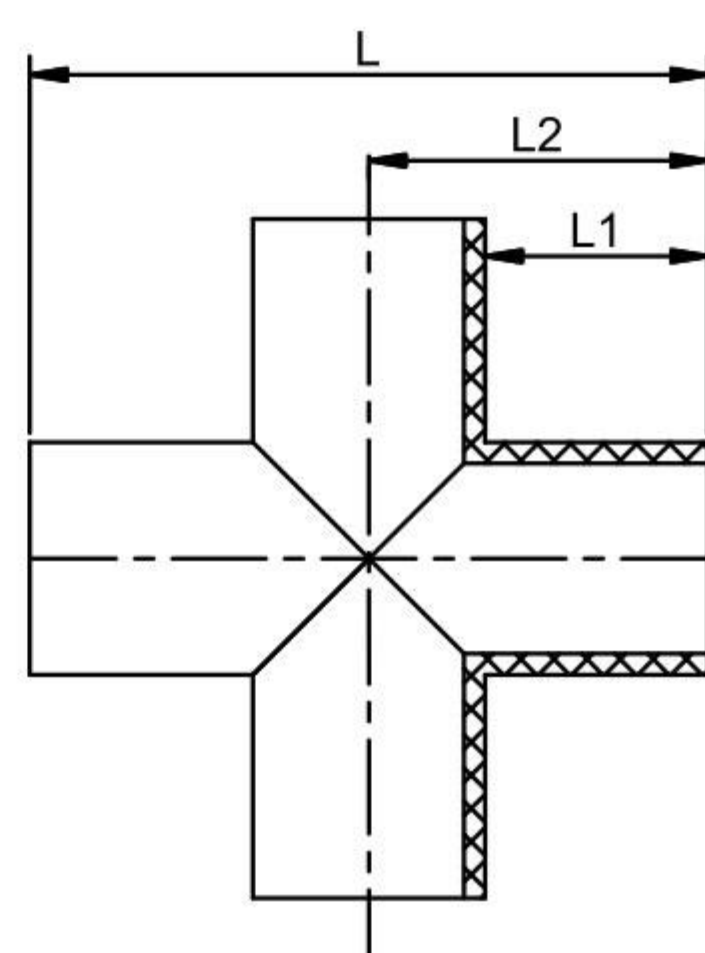


SAP No. (black/1.6MPa)	Size (mm)	L1	L2	L3	L4	PCS/CTN
8010041243	200×63	600	275	235	145	
8010041244	200×75	600	285	223	155	
8010041245	200×90	600	290	213	155	
8010041251	225×63	600	288	235	145	
8010041252	225×75	600	298	223	155	
8010041253	225×90	600	303	213	155	
8010041246	225×110	600	308	203	160	
8010041260	250×63	630	300	250	145	
8010041261	250×75	630	310	238	155	
8010041262	250×90	630	315	228	155	
8010041254	250×110	630	320	218	160	
8010041255	250×125	630	325	203	160	
8010041266	280×63	670	315	270	145	
8010042609	280×75	670	335	258	155	
8010041267	280×90	670	340	248	155	
8010041263	280×110	670	345	238	160	
	280×125	670	335	223	160	
8010041276	315×63	670	343	270	145	
8010041277	315×75	670	353	258	155	
8010041278	315×90	670	358	248	155	
8010041268	315×110	670	363	238	160	

SAP No. (black/1.6MPa)	Size (mm)	L1	L2	L3	L4	PCS/CTN
8010041269	315×125	670	368	223	160	
8010041270	315×160	670	363	203	160	
8010042754	355×63	670	358	270	145	
	355×75	670	373	258	155	
8010041282	355×90	670	378	248	155	
8010041279	355×110	670	393	238	160	
8010041437	355×125	670	393	223	160	
8010041280	355×160	670	382	203	160	
8010041287	400×63	720	380	295	145	
8010041288	400×75	720	395	283	155	
8010041289	400×90	720	400	273	155	
8010041283	400×110	720	415	263	160	
8010041284	400×125	720	425	248	160	
8010041285	400×160	720	405	228	160	
8010041292	450×63	720	400	295	145	
8010041293	450×75	720	410	283	155	
8010041294	450×90	720	425	273	155	
8010041393	450×110	720	430	263	160	
8010041290	450×125	720	440	248	160	
8010041291	450×160	720	430	228	160	
	500×63	760	430	315	145	
	500×75	760	440	303	155	
8010041296	500×90	760	455	293	155	
8010041295	500×110	760	460	283	160	
8010042612	500×125	760	470	268	160	
8010043099	500×160	760	460	248	160	
	560×110	760	485	283	160	
8010042616	560×160	760	490	248	160	
	630×63	760	500	315	145	
	630×75	760	510	303	155	
	630×90	760	530	393	155	
	630×110	760	535	283	160	
	630×125	760	540	268	160	
8010042662	630×160	760	530	248	160	

Nominal Pressure is available in 0.6MPa, 1.0MPa and 1.6MPa.

Fabricated Cross



SAP No. (black/1.6MPa)	Size (mm)	L1	L2	L	PCS/CTN
8010040957	110	150	205	410	
8010041517	125	150	215	430	
8010040958	160	150	230	460	
8010040960	200				
8010040961	225	150	250	500	
8010040962	250	150	265	530	
8010040963	280	250	350	750	
8010040964	315				
8010040965	355	300	460	920	
8010040966	400	300	480	960	
8010040967	450	300	500	1000	
8010040968	500				
	560				
	630				

Nominal Pressure is available in 0.6MPa, 1.0MPa and 1.6MPa.

(1) Socket Fusion Joint

Step: (Use Socket Fusion Welding Machine)



① Check and measure

- Check the pipe and fittings to see whether they are damaged, and make the incision smooth.
- Measure the depth of socket, mark on the pipe surface.



② Chamfer

- Chamfer the nozzle, the angle should be 30°, the length of surface groove should not exceed 2.0mm.



③ Clean and dry

- Clean and dry the pipe's spigot and the fittings' socket.



④ Heat

- Push the end of the pipe and fittings, without turning, upto the welding depth into the welding machine, heat up the end of the pipe and fittings.



⑤ Join and cool

- Pull out the pipe and fittings from the welding machine when the scheduled heating is over, insert the pipe's spigot into the fittings' socket evenly and swiftly.
- Not continue the next step until the scheduled cooling is over.

Recommended technical parameter for Socket Fusion Joint

(Thermal temperature is 260°C ± °C)

Outer Diameter (mm)	Heating Time(s)	Maximum Transit Time (s)	Minimum Cooling Time (s)
20	5	4	2
25	7	4	2
32	8	6	4
40	12	6	4
50	18	6	4
63	24	8	6

(2) Butt Fusion Joint

Step: (Use Butt Fusion Welding Machine)



① Prepare

- Prepare the necessary tools.



② Clamp and clean

- Clamp down the pipe on the jig, clean up the joint parts, mill the joint sides, and then adjust the joint parts to make the misplacement less than 10% of the wall thickness.



③ Heat

- Put the heating panel.



④ Join

- Remove the heating panel after finishing heating, join the two heating parts swiftly, increase pressure up to the fusion-joint pressure and keep until it cools down.



⑤ Complete

- Butt Fusion Joint is completed.

Recommended welding parameter, which should be followed by the welders

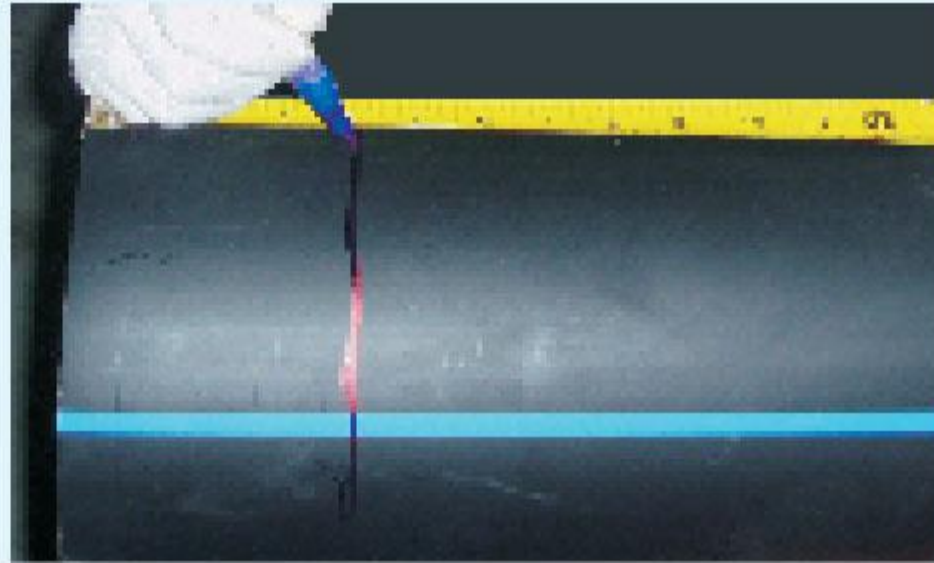
Wall Thickness (mm)	Preheating Curling Height (mm) (Preheating Temperature is $210 \pm 10^{\circ}\text{C}$)	Preheating Time(s) (Temperature is $210 \pm 10^{\circ}\text{C}$)	Allowed Maximum Transit Time(s)	Cooling Time for the Weld Seam under Pressure-reserving State (min)
2.0 - 3.9	0.5	30 - 40	4	4 - 5
4.3 - 6.9	0.5	40 - 70	5	6 - 10
7.0 - 11.4	1.0	70 - 120	6	10 - 16
12.2 - 18.2	1.0	120 - 170	8	17 - 24
20.1 - 25.5	1.5	210 - 250	10	25 - 32
28.3 - 32.2	1.5	280 - 320	12	33 - 40

Application of Butt Fusion Joint at Sites



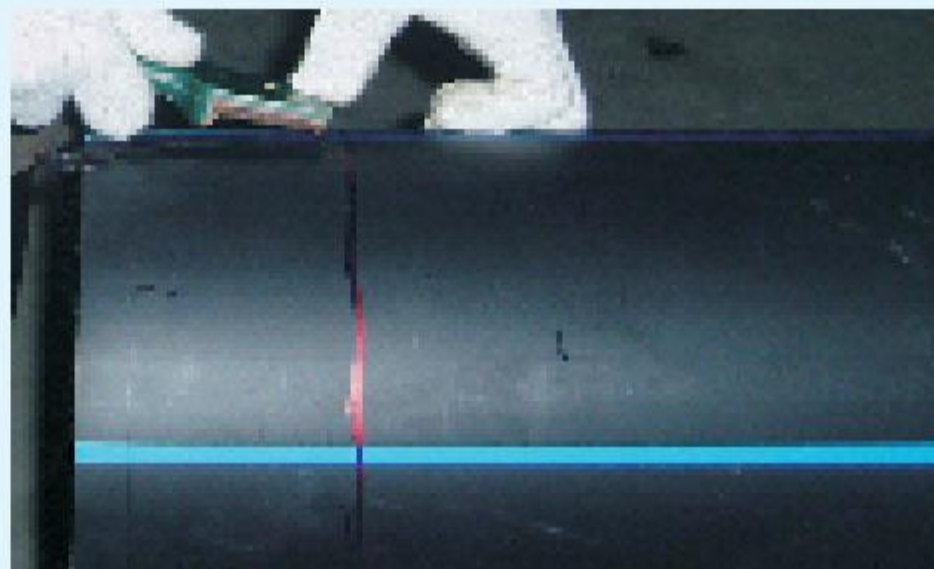
(3) Electro Fusion Joint

Step: (Use Electro Fusion Welding Machine)



① Clean and mark

- Clean up the connection part, mark the inserting depth.



② Scrape

- Scrape and polish the joint surface.



③ Align and restrain the fittings to the pipes



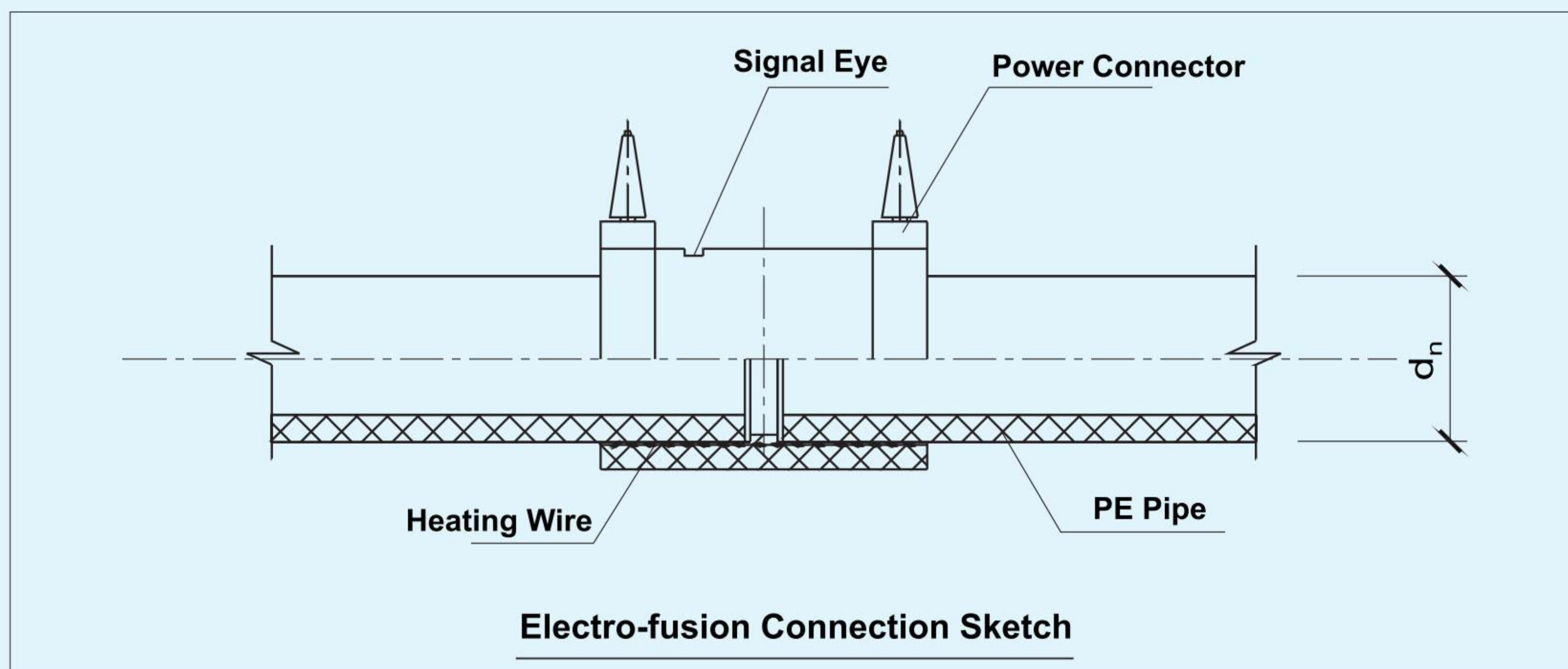
④ Apply electric current

- Apply the electric current to the fittings; the joining parts will be heated and melted, turn off the current when there is melt flowing in the observation hole.



⑤ Cool

- Cool without movement or pressure.



Note: While connecting, the heating voltage and time should comply with manufacture's technical stipulations of Electro Fusion Welding Machine.



SIFFO

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