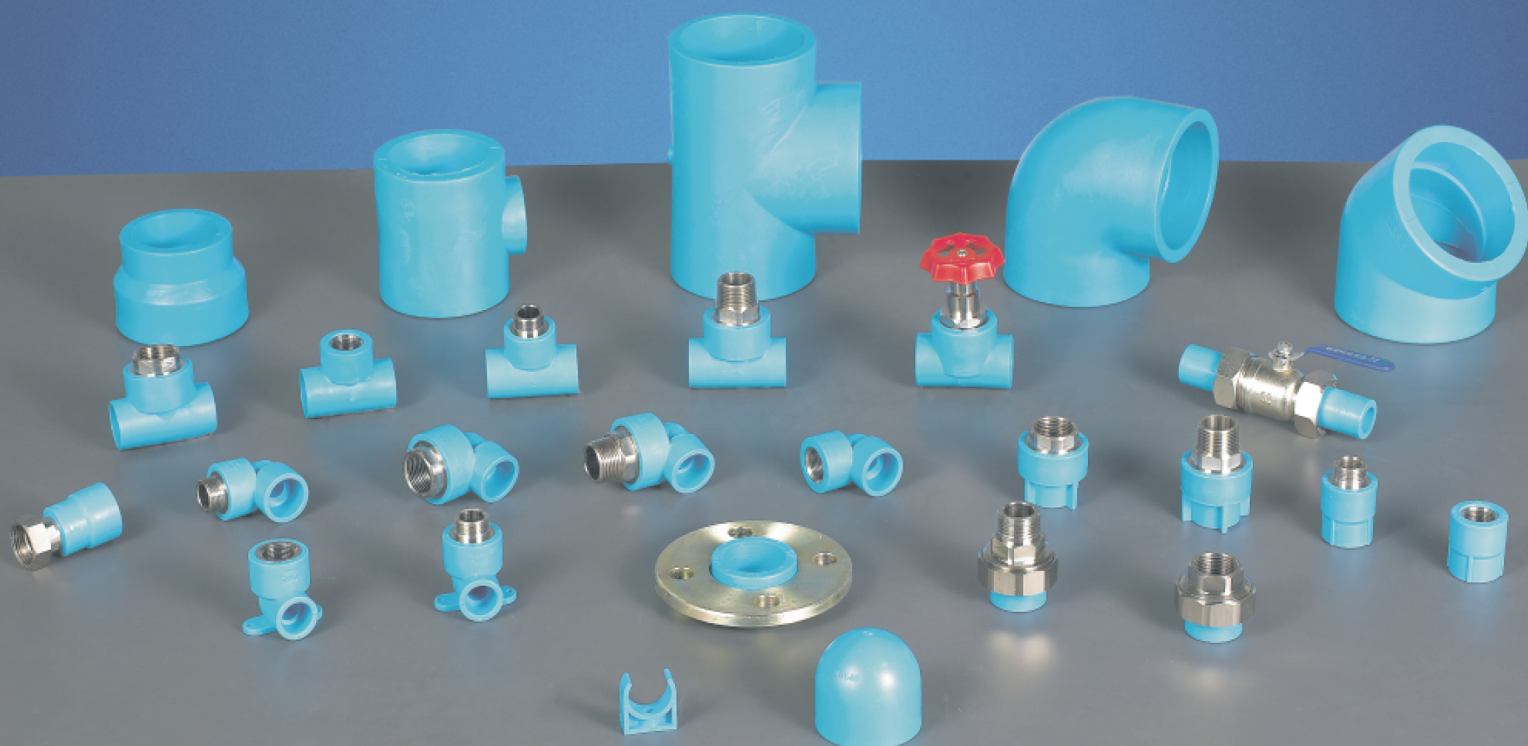




PE

Water Supply Pipe and Fittings



■ Product Overview

- ⊗ **Material:** PE 80 or PE 100
- ⊗ **Pressure Rating:** 0.4MPa, 0.6MPa, 0.8MPa, 1.0MPa, 1.25MPa, 1.6MPa
- ⊗ **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

■ Physical Properties

Properties		Typical Value
Extension Rate at Break, %		≥350
Longitudinal Reversion, % (110°C)		≤3
Oxidation Induction Time, min (200°C)		≥20
Hydraulic Pressure Test	20°C, 100h	No Failure
	PE80 9.0MPa	
	PE100 12.4MPa	
	80°C, 165h	No Failure
	PE80 4.6MPa	
	PE100 5.5MPa	
	80°C, 1000h	No Failure
	PE80 4.0MPa	
	PE100 5.0MPa	
Climate Resistance (After the pipe accumulate accept the aging energy ≥3.5GJ/m ³)	80°C, 165h	No Failure
	PE80 4.6MPa	
	PE100 5.5MPa	
	Extension Rate at Break, %	≥350
	Oxidation Induction Time, min (200°C)	≥10

Technical Specifications	PE 100	Unit	Test Mechod
Density at 23°C	0.955	g/cm ³	ISO 1183
MFR 190°/5 kg	0.23	g/10 min	ISO 1133
Mechanical Properties			
Yield Stress	23	MPa	ISO 527
Tensile Modulus	>1000	MPa	ISO 527
Oxidation-Induction Time at 210°C	≥20	min	ISO TR 10837
Carbon Black Content (Black Only)	≥2~2.5	%	ISO 6964
Resistance to S.C.P (slow crack propagation = 4.6 Mpa, 80°C Notched)	>1000	h	ISO 13479
Resistance to R.C.P (Rapid Crack Propagation S4-test 110/10 mm, °C)	>10	bar	ISO DIS 13477
Elongation at break	≥500	%	ISO 6259
Linear Thermal Expansion	1.5×10 ⁻⁴	°C-1	ASTM D696(20-60°C)
Electrical Properties			
Electric Strength	>20	kV/mm	ASTM D149
Volume Resistivity	>10 ¹⁹	ΩM	ASTM D257

SDR 26 (PN 0.6)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
110	4.2	
125	4.8	
160	6.2	
180	6.9	
200	7.7	
225	8.6	
250	9.6	
280	10.7	
315	12.1	
355	13.6	
400	15.3	
450	17.2	
500	19.1	
560	21.4	
630	24.1	
710	27.2	
800	30.6	
900	34.4	
1000	38.2	
1200	46.3	
1400	53.9	
1600	61.6	

SDR 21 (PN 0.8)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
90	4.3	
110	5.3	
125	6.0	
140	6.7	
160	7.7	
180	8.6	
200	9.6	
225	10.8	
250	11.9	
280	13.4	
315	15.0	
355	16.9	
400	19.1	
450	21.5	
500	23.9	
560	26.7	
630	30.0	
710	33.9	
800	38.1	
900	42.9	
1000	47.7	
1200	57.2	
1400	66.8	

SDR 17 (PN1.0)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
75	4.5	
90	5.4	
110	6.6	
125	7.4	
160	9.5	
180	10.7	
200	11.9	
225	13.4	
250	14.8	
280	16.6	
315	18.7	
355	21.1	
400	23.7	
450	26.7	
500	29.7	
560	33.2	
630	37.4	
710	42.1	
800	47.4	
900	53.3	
1000	59.3	

SDR 13.6 (PN 1.25)

SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
50	3.7	
63	4.7	
75	5.6	
90	6.7	
110	8.1	
125	9.2	
160	11.8	
180	13.3	
200	14.7	
225	16.6	
250	18.4	
280	20.6	
315	23.2	
355	26.1	
400	29.4	
450	33.1	
500	36.8	
630	46.3	

SDR 11 (PN 1.6)		
SAP No. (black/5.8M)	d _n (mm)	e _n (mm)
	20	2.3
	25	2.3
	32	3.0
	40	3.7
	50	4.6
	63	5.8
	75	6.8
	90	8.2
	110	10.0
	125	11.4
	160	14.6
	180	16.4
	200	18.2
	225	20.5
	250	22.7
	280	25.4
	315	28.6
	355	32.2
	400	36.3
	450	40.9
	500	45.4
	560	50.8
	630	57.2

Coil Pipe			
SDR 13.6 (PN 1.25)			
SAP No. (blue/50M)	d _n (mm)	e _n (mm)	Length (m/roll)
	63	4.7	50

Coil Pipe			
SDR 11 (PN 1.6)			
SAP No. (black/50M)	d _n (mm)	e _n (mm)	Length (m/roll)
	20	2.3	50/100
	25	2.3	50/100
	32	3.0	50/100
	40	3.7	50/100
	50	4.6	50
	63	5.8	50



■ Features

Material: PE 100

Size: full 20mm through 110mm availability

Pressure Rating: 1.6MPa, or other nominal pressures available upon request

Standard: ISO 4427-3, EN 12201-3, BS EN 12201-3 BS 6920

Color: blue (all size)

black (d_n110)

other colors are also available upon request

Joint: joining pipe and socket fusion joint fittings by socket fusion joint

■ Advantages

Non-toxic: no heavy metal additives, would not be covered with dirt or contaminated by bacterium

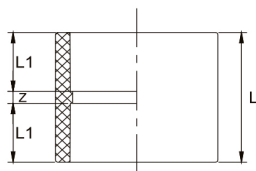
Corrosion Resistance: resist chemical matters and electron chemical corrosion

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

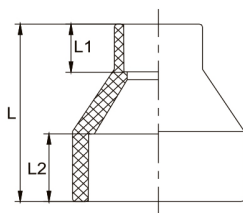
Longevity: more than 50 years under proper use

Coupling (Soc×Soc)



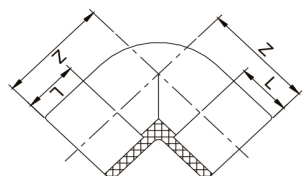
SAP Number (blue)	Size (mm)	L1	L	Z	PCS/CTN
	20	16.5	37	4	870
	25	18	40	4	560
	32	20.5	45	4	340
	40	22.5	50	5	240
	50	25.5	56	5	260
	63	30	65	5	160
	75	33	72	6	100
	90	37	78	4	50
	110	42	89	5	36

Reducer (Soc×Soc)



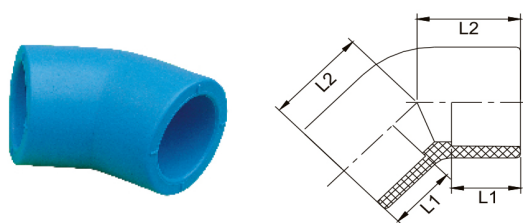
SAP Number (blue)	Size (mm)	L1	L2	L	PCS/CTN
	25x20	16.5	18	45	600
	32x20	16.5	20.5	56	340
	32x25	18	20.5	52	300
	40x20	16.5	22.5	63	320
	40x25	18	22.5	61	240
	40x32	20.5	22.5	54	240
	50x20	16.5	25.5	67	160
	50x25	18	25.5	67	160
	50x32	20.5	25.5	67	160
	50x40	22.5	25.5	62	120
	63x25	18	29.5	82	160
	63x32	20.5	29.5	84	150
	63x40	22.5	29.5	82	150
	63x50	25.5	29.5	71	135
	75x32	20.5	33	65	135
	75x40	22.5	33	67	140
	75x50	25.5	33	75	100
	75x63	29.5	33	80	90
	90x40	22.5	37	75	
	90x50	25.5	37	75	120
	90x63	29.5	37	100	72
	90x75	33	37	86	55
	110x63	29.5	42	112	50

90°Elbow (Soc×Soc)



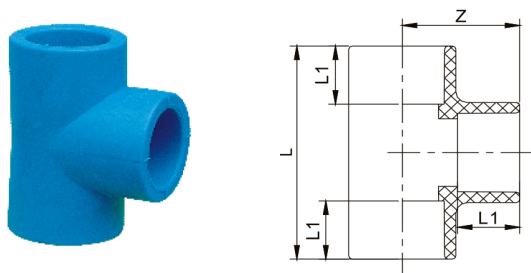
SAP Number (blue)	Size (mm)	L	Z	PCS/CTN
	20	16.5	33	500
	25	18	36.5	320
	32	20.5	41.5	200
	40	22.5	48	100
	50	25.5	61	120
	63	29.5	69	60
	75	33	77.5	40
	90	37	89	25
	110	42	105.5	15

45° Elbow (Soc×Soc)



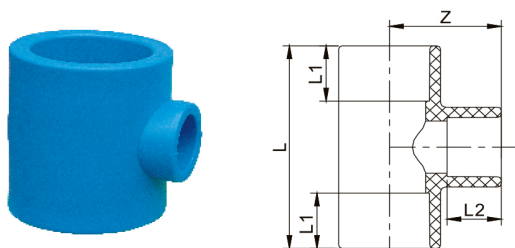
SAP Number (blue)	Size (mm)	L1	L2	PCS/CTN
	20	16.5	24	500
	25	18	27	380
	32	20.5	32	240
	40	22.5	35	140
	50	25.5	41	140
	63	29.5	48	80
	75	33	53.2	50
	90	37	59.5	30
	110	42	69	20

Tee (Soc×Soc)



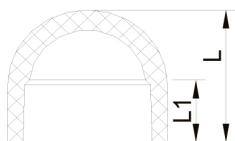
SAP Number (blue)	Size (mm)	L1	L	Z	PCS/CTN
	20	16.5	64	32	320
	25	18	72	36	220
	32	20.5	85	42.5	140
	40	22.5	94	47	90
	50	25.5	112	56	80
	63	29.5	140	70	50
	75	33	154	77	30
	90	37	178	89	20
	110	42	214	107	12

Reducing Tee (Soc×Soc)



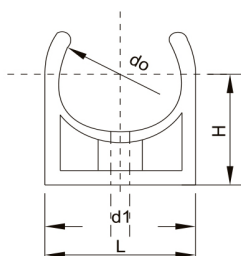
SAP Number (blue)	Size (mm)	L1	L2	L	Z	PCS/CTN
	25x20	18	16.5	66	34	280
	32x20	20.5	16.5	72	38	180
	32x25	20.5	18	77	40	160
	40x20	22.5	16.5	78	42	116
	40x25	22.5	18	83	44	96
	40x32	22.5	20.5	90	46	96
	50x20	25.5	16.5	86	47	160
	50x25	25.5	18	91	49	150
	50x32	25.5	20.5	98	51	120
	50x40	25.5	22.5	104	53	100
	63x25	29.5	18	101	57	80
	63x32	29.5	20.5	108	59	60
	63x40	29.5	22.5	112	61	60
	63x50	29.5	25.5	122	64	60
	75x32	33	20.5	100	64	60
	75x40	33	22.5	113	63.5	54
	75x50	33	25.5	122.5	64.5	60
	75x63	33	29.5	145	75	36
	90x40	37	22.5	120	72.25	36
	90x50	37	25.5	132.3	80	28
	90x63	37	29.5	148	84	28
	90x75	37	33	164	88	25

Cap(Soc)



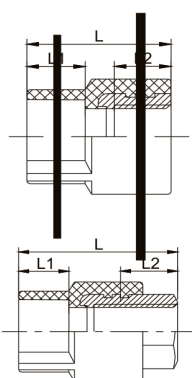
SAP Number (blue)	Size (mm)	L1	L	PCS/CTN
	20	16.5	30	1500
	25	18	34	900
	32	20.5	43	450
	40	22.5	54	240
	50	25.5	58	140
	63	29.5	68	150
	75	33	80	
	90	37	95	
	110	42	112	

Pipe Clamp



SAP Number (blue)	Size (mm)	D	L	do	d1	H	PCS/CTN
	20	20	27.4	19.6	5	22	1080
	25	25	32	24.6	5	24.5	1050
	32	32	39	31.5	5	28.5	960
	40	40	47.5	38.5	5	32	600
	50	50	57.5	48.5	5	37	450

Female Thread Adapter (Soc×Fipt with Metal Insert)

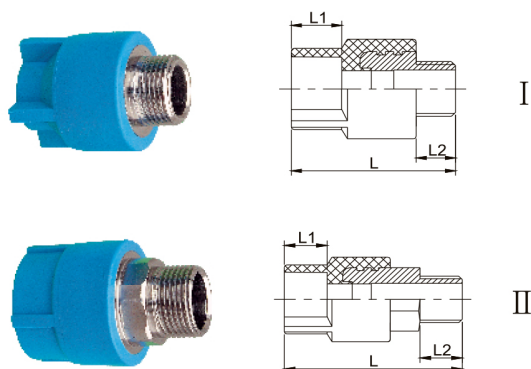


I

II

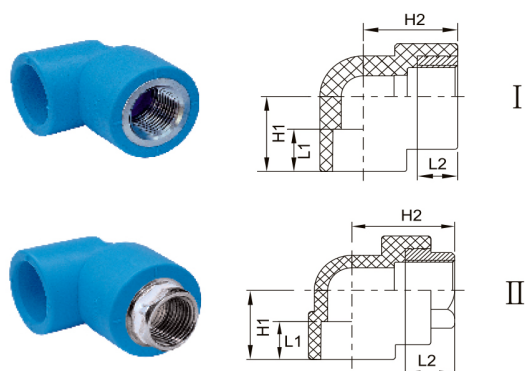
SAP Number (blue)	Size (mm x inch)	L1	L2	L	PCS/CTN
	20x1/2"	16.5	17.5	42	360
	20x3/4"	16.5	17	42	240
	25x1/2"	18	17.5	44.5	300
	25x3/4"	18	17	45	180
	32x1/2"	20.5	17.5	47	180
	32x3/4"	20.5	17	47	210
	32x1"	20.5	22	59	96
	40x1"	22.5	22	60	72
	40x1 1/4"	22.5	23	64	48
	50x1 1/4"	25.5	23	66	48
	50x1 1/2"	25.5	23	68.5	36
	63x2"	29.5	25	77	36
	75x2"	33	25	80.5	

Male Thread Adapter (Soc×Mipt with Metal Insert)



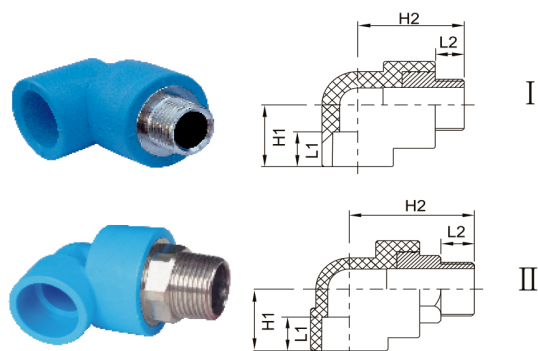
SAP Number (blue)	Size (mm x inch)	L1	L2	L	PCS/CTN
	20x1/2"	16.5	14	56	240
	20x3/4"	16.5	14	56	180
	25x1/2"	18	14	58.5	210
	25x3/4"	18	14	59	180
	32x1/2"	20.5	14	61	180
	32x3/4"	20.5	14	61	180
	32x1"	20.5	19	78	72
	40x1"	22.5	19	79	72
	40x1 1/4"	22.5	21	85	48
	50x1 1/4"	25.5	21	87	48
	50x1 1/2"	25.5	21	89.5	48
	63x2"	29.5	24	102	36
	75x2"	33	24	105.5	36

Female Thread Elbow (Soc×Fipt with Metal Insert)



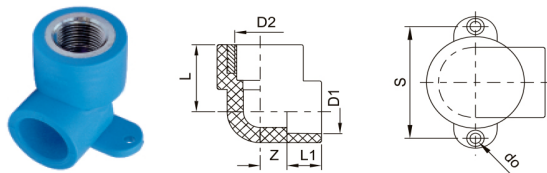
SAP Number (blue)	Size (mm x inch)	L1	L2	H1	H2	PCS/CTN
	20x1/2"	16.5	17.5	30	36	240
	20x3/4"	16.5	17	33	36	210
	25x1/2"	18	17.5	33	38	210
	25x3/4"	18	16	34.4	37.4	180
	32x1/2"	20.5	17.5	35	42	180
	32x3/4"	20.5	17.5	38	42	150
	32x1"	20.5	22	40.5	53	72
	40x1 1/4"	22.5	23	51	61.2	48
	50x1 1/2"	25.5	23	57	66.5	36
	63x2"	29.5	25	67.5	78.5	
	75x2 1/2"	33	30	79	89.5	

Male Thread Elbow (Soc×Mipt with Metal Insert)



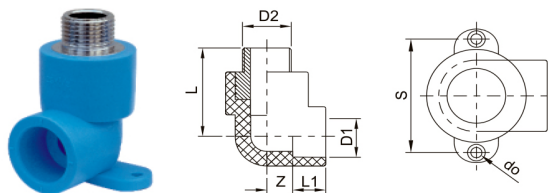
SAP Number (blue)	Size (mm x inch)	L1	L2	H1	H2	PCS/CTN
	20x1/2"	16.5	14	30	50	240
	20x3/4"	16.5	14	33	50	150
	25x1/2"	18	14	33	52	210
	25x3/4"	18	14	34.4	51.4	150
	32x1/2"	20.5	14	35	56	180
	32x3/4"	20.5	14	38	56	120
	32x1"	20.5	19	40.5	72	72
	40x1 1/4"	22.5	21	49.5	82.5	48
	50x1 1/2"	25.5	21	55.5	87.5	
	63x2"	29.5	24	62.5	103	
	75x2 1/2"	33	28	74	118	

**Female Thread Elbow with Base
(Soc×Fipt with Metal Insert)**



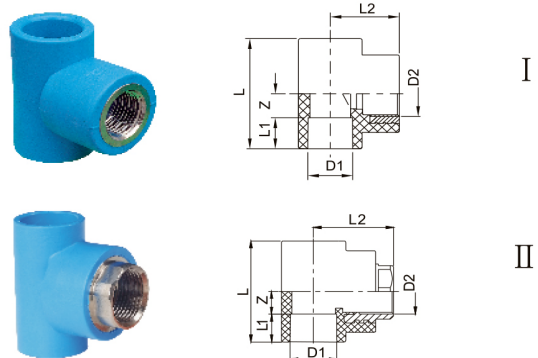
SAP Number (blue)	Size (mm×inch)	D1	D2	L	S	L1	do	PCS/CTN
	20x1/2"	20	1/2"	36	49.5	16.5	5	210
	20x3/4"	20	3/4"	36	53.5	16.5	5	180
	25x1/2"	25	1/2"	38	49.5	18	5	180
	25x3/4"	25	3/4"	37.4	53.5	16.5	5	180

**Male Thread Elbow with Base
(Soc×Mipt with Metal Insert)**



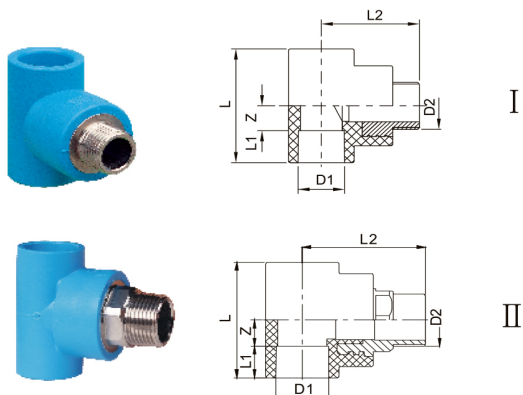
SAP Number (blue)	Size (mm×inch)	D1	D2	L	S	L1	do	PCS/CTN
	20x1/2"	20	1/2"	49	50	16	5	180
	20x3/4"	20	3/4"	49	55	16	5	150
	25x1/2"	25	1/2"	51.5	50	18	5	180
	25x3/4"	25	3/4"	51.5	55	18	5	150

**Female Thread Tee
(Soc×Soc×Fipt with Metal Insert)**



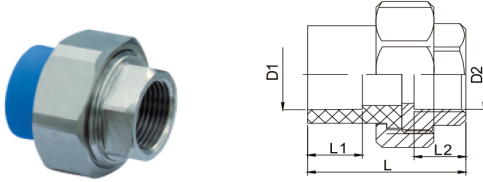
SAP Number (blue)	Size (mm×inch)	D1	D2	Z	L2	L1	L	PCS/CTN
	20x1/2"	20	1/2"	13.5	36	16.5	60	240
	20x3/4"	20	3/4"	16.5	36	16.5	66	210
	25x1/2"	25	1/2"	15	38	18	66	180
	25x3/4"	25	3/4"	17	38	18	70	150
	32x1/2"	32	1/2"	14.5	42	20.5	70	120
	32x3/4"	32	3/4"	17.5	42	20.5	76	120
	32x1"	32	1"	20	53	20.5	81	60
	40x1 1/4"	40	1-1/4"	28.5	61.2	22.5	102	
	50x1 1/2"	50	1-1/2"	31.5	66.5	25.5	114	
	63x2"	63	2"	38	78.5	29.5	135	
	75x2 1/2"	75	2-1/2"	46	89.5	33	158	

**Male Thread Tee
(Soc×Soc×Mipt with Metal Insert)**



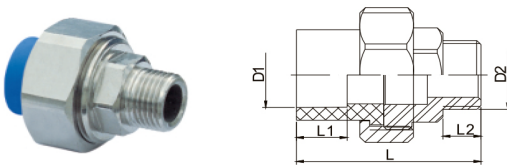
SAP Number (blue)	Size (mm×inch)	D1	D2	Z	L2	L1	L	PCS/CTN
	20x1/2"	20	1/2"	13.5	50	16.5	60	180
	20x3/4"	20	3/4"	16.5	50	16.5	66	150
	25x1/2"	25	1/2"	15	52	18	66	150
	25x3/4"	25	3/4"	17	52	18	70	120
	32x1/2"	32	1/2"	14.5	56	20.5	70	120
	32x3/4"	32	3/4"	17.5	56	20.5	76	90
	32x1"	32	1"	20	72	20.5	81	60
	40x1 1/4"	40	1-1/4"	27	82.5	22.5	99	
	50x1 1/2"	50	1-1/2"	30	87.5	25.5	111	
	63x2"	63	2"	32.25	103	29.5	123.5	
	75x2 1/2"	75	2-1/2"	41	118	33	148	

Female Thread Union (Soc×Fipt with Metal)



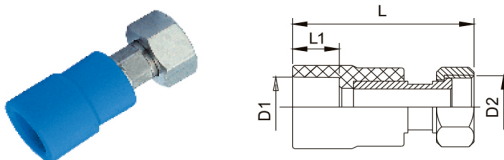
SAP Number (blue)	Size (mm×inch)	D1	D2	L1	L2	L	PCS/CTN
	20x1/2"	20	1/2"	16	16	42	180
	25x3/4"	25	3/4"	18	17	47	150
	32x1"	32	1"	20.5	18	52	90

Male Thread Union (Soc×Mipt with Metal)



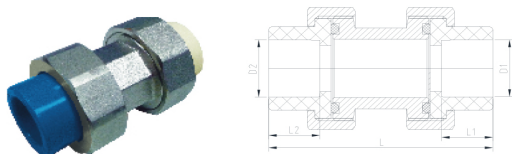
SAP Number (blue)	Size (mm×inch)	D1	D2	L1	L2	L	PCS/CTN
	20x1/2"	20	1/2"	16	14	55	150
	25x3/4"	25	3/4"	18	13.5	60	120
	32x1"	32	1"	20.5	19	71	72

Flexible Joint (Soc×Fipt with Metal)



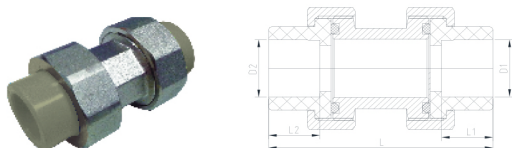
SAP Number (blue)	Size (mm×inch)	D1	D2	L	L1	PCS/CTN
	20x1/2"	20	1/2"	59	16.5	300
	20x3/4"	20	3/4"	59.5	16.5	240
	25x1/2"	25	1/2"	61	18	240
	25x3/4"	25	3/4"	62	18	240
	32x1"	32	1"	68.5	20	150

PE/PE-RT Change Union (Soc×Soc)



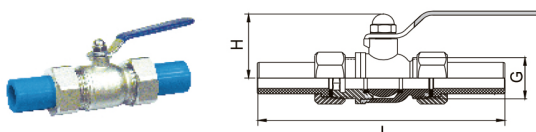
SAP Number (blue)	Size (mm×inch)	L	L1	L2	D1	D2	PCS/CTN
	20	72	16	16.5	20	20	
	25	77	18	18	25	25	
	32	82	20	20	32	32	

PPR/PE Change Union (Soc×Soc)



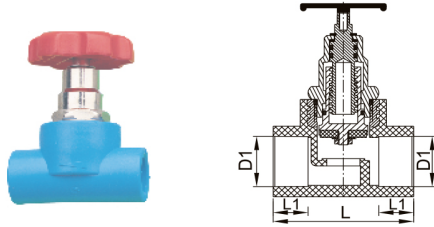
SAP Number (gray)	Size (mm×inch)	L	L1	L2	D1	D2	PCS/CTN
	20	68.2	16	16	20	20	180
	25	74	18	18	25	25	120
	32	82	20	20	32	32	72

Ball Valve (Spig×Spig)



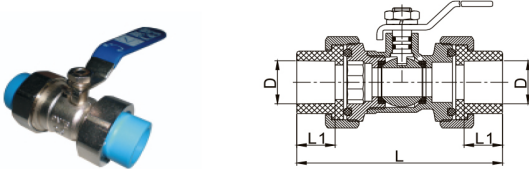
SAP Number (blue)	Size (mm)	L	G	H	PCS/CTN
	20	142	3/4"	33	96
	25	156.5	1"	35	72
	32	169	1-1/4"	42.2	36

Stop Valve (Soc×Soc)



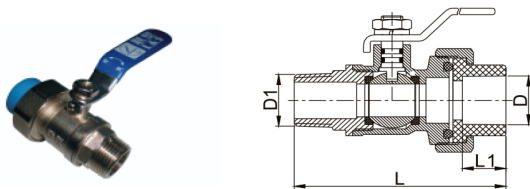
SAP Number (blue)	Size (mm)	D1	L1	L	PCS/CTN
	20	20	16.5	65	72
	25	25	18	74	60
	32	32	20.5	83	36
	40	40	22.5	89.5	36
	50	50	25.5	117	30
	63	63	29.5	124	20

True Union Ball Valve (Soc×Soc)



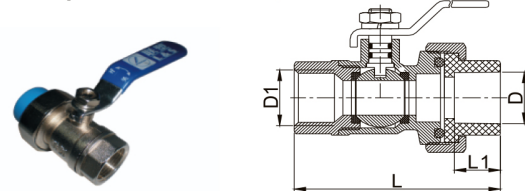
SAP Number (blue)	Size (mm)	D	L1	L	PCS/CTN
	20	20	16	85.8	
	25	25	18	93.8	
	32	32	20	103.2	

Male Thread Union Ball Valve (Soc×Mipt with Metal)



SAP Number (blue)	Size (mm)	D	D1	L1	L	PCS/CTN
	20x1/2"	20	1/2"	16	77.9	
	25x3/4"	25	3/4"	18	83.9	
	32x1"	32	1"	20	95.7	

Female Thread Union Ball Valve (Soc×Fipt with Metal)



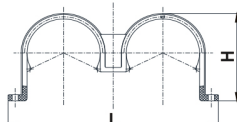
SAP Number (blue)	Size (mm)	D	D1	L1	L	PCS/CTN
	20x1/2"	20	1/2"	16	71.9	
	25x3/4"	25	3/4"	18	75.4	
	32x1"	32	1"	20	85.7	

PE Single Male Manifold



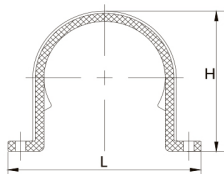
SAP Number (black)	Size (mm)	SDR	Brand Pipe	PCS/CTN
	50×1/2"	11	3	
	50×1/2"	11	4	
	50×1/2"	11	5	
	50×1/2"	11	6	
	50×1/2"	11	8	

Double U Clamp



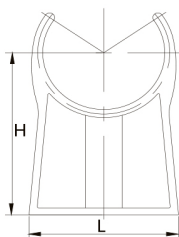
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	72.5	27.5	
	25	85	33.8	
	32	100.5	41	
	40	122	50	
	50	147.5	61	
	63	178	76	

U Clamp



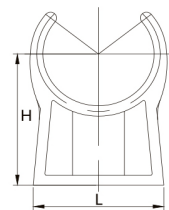
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	44	27.5	
	25	50.5	33.8	
	32	57	41	
	40	68	50	
	50	78	61	

Clamp (Tall-style)



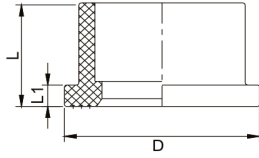
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	24.5	40	
	25	30.5	45	
	32	37	50	
	40	46	60	
	50	60	70	

Clamp (Moderate-style)



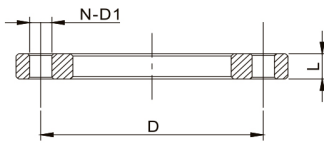
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	24.5	30	
	25	30.5	35	
	32	37	40	
	40	46	45	
	50	60	55	

Stub Flange (Soc×Flange)



SAP Number (blue)	Size (mm)	L1	L	D	PCS/CTN
	50	10	30	84	90
	63	11	34	104	60
	75	14	38	124	

Flange(Steel Tray)



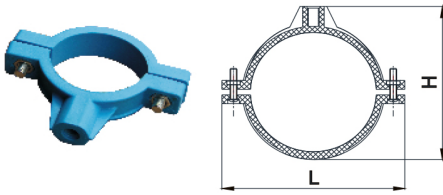
SAP Number (black)	Size (mm)	D	D1	N	L	PCS/CTN
	50 1.6MPa	110	18	4	10	
	63 1.6MPa	125	18	4	12	
	75 1.6MPa	145	18	4	15	

Rubber Gasket



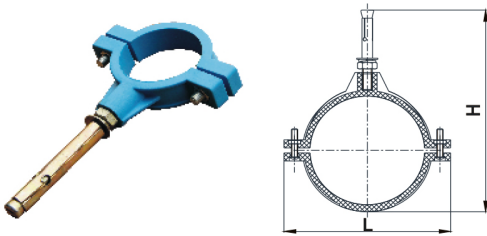
SAP Number (black)	Size (mm)	D1	D	L	H	PCS/CTN
	50	45	86	113	4	
	63	58	105	132.5	4	
	75	68	127	153.5	4	

Pipe Clamp I (without Screw)



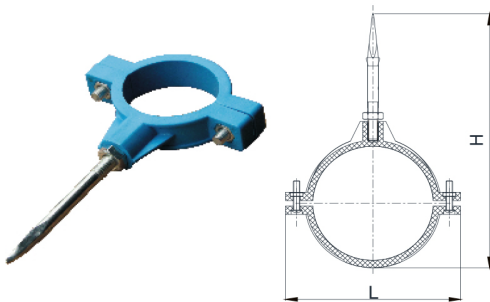
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	49	42	
	25	54	47	
	32	64	54	
	40	72	62.5	
	50	87	73	
	63	106	87.5	
	75	118.5	101	
	90	132	115	
	110	157	138.5	
	160	207	191	

Pipe Clamp I (Screw)



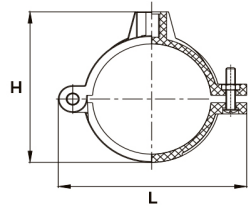
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	49	96	480
	25	54	101	
	32	64	108	
	40	72	116.5	
	50	87	127	
	63	106	140.5	
	75	118.5	154	
	90	132	178	
	110	157	200.5	
	160	207	251	

Pipe Clamp I (Tusk Screw)



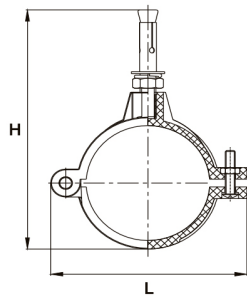
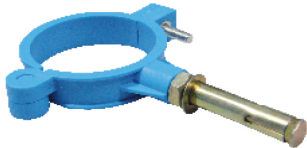
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	20	49	96	
	25	54	101	
	32	64	108	
	40	72	116.5	
	50	87	137	
	63	106	150.5	
	75	118.5	164	
	90	132	218	
	110	157	240.5	
	160	207	291	

Pipe Clamp IV (Without Screw)



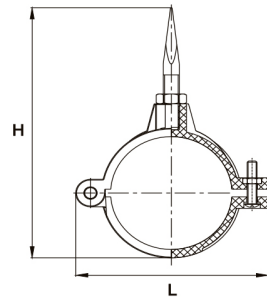
SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	40	72.5	62.5	
	50	88.5	73	
	63	105	87.5	
	75	117.5	101	
	90	132	115	
	110	162	138.5	

Pipe Clamp IV (Screw)



SAP Number (blue)	Size (mm)	L	H	PCS/CTN
	40	72.5	111.5	
	50	88.5	127	
	63	105	140.5	
	75	117.5	154	
	90	132	178	
	110	162	200.5	

Pipe Clamp IV (Tusk Screw)



SAP Number (blue)	Size (mm)	L	H	PCS/CTN
80100 3039	40	72.5	116.5	
	50	88.5	137	
	63	105	150.5	
	75	117.5	164	
	90	132	218	
	110	162	240.5	

Definitions of abbreviated configuration description follow

Soc: Socket Fipt: Female Iron Pipe Thread
Spig: Spigot Mipt: Male Iron Pipe Thread



■ 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 (all size)

black (dn110 or above)

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

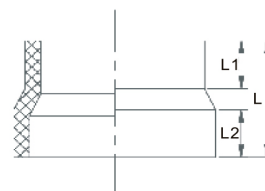
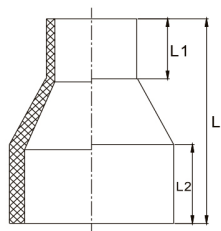
Corrosion Resistance: resist chemical matters and electron chemical corrosion

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

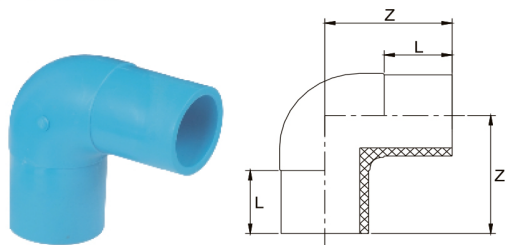
Reducer



SAP Number (blue)	SDR	Size (mm)	L1	L2	L	PCS/CTN
	11	75×63	70	75	156	60
	11	90×63	65	79	172	40
	11	90×75	70	79	163	40
	11	110×50	65	79.6	200	36
	11	110×63	70	80	196	36
	11	110×75	70	80	184	32
	11	110×90	72	81	166	30
	11	125×63	70	80	200	24
	11	125×90	84	98	242	24
	11	125×110	82	87	185.5	20
	11	160×90	80	90	242	12
	11	160×110	80	100	228	12
	11	160×125	80	80	195	12
	11	180×63	78	100	266	14
	11	180×110	100	100	239	12
	11	180×160	69	92.8	179	10
	11	200×110	80	100	226	6
	11	200×160	98	112	248	6
	11	200×180				6
	11	225×160	90	90	230	6
	11	225×200	90	90	206	4
	11	250×110	80	90	210	5
	11	250×160	80	90	283	3
	11	250×200	90	90	246	4
	11	250×225	90	90	206	3
	13.6	280×110				3
	13.6	280×160				4
	13.6	280×200	85	85	250	4
	13.6	315×110	90	85	225	3
	13.6	315×160	90	90	225	2
	13.6	315×200	100	100	286	2
	13.6	315×225	90	90	222	2
	13.6	315×250	90	90	240	2
	13.6	315×280	85	85	201	

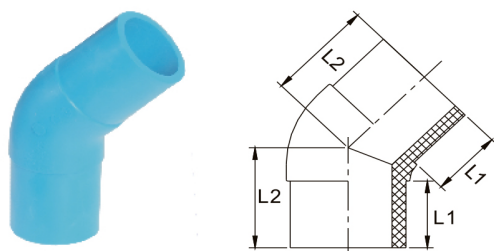
SAP Number (blue)	SDR	Size (mm)	L1	L2	L	PCS/CTN
	17	355×200	80	80	287	
	17	355×250	77	77	242	
	17	355×315	90	90	220	
	17	400×200	70	70	265	
	17	400×250	80	80	248	
	17	400×315	80	85	215	
	17	400×355				
	17	450×200	70	70	254	
	17	450×250	85	85	248	
	17	450×315	90	100	270	
	17	450×400				
	26	500×315	85	100	250	
	17	500×315	85	100	250	
	26	500×355	85	100	250	
	17	500×355	85	100	250	
	26	500×400	85	100	250	
	17	500×400	85	100	250	
	26	500×450				
	17	500×450	85	100	250	
	26	560×315				
	26	560×400				
	17	560×400	90	95	250	
	26	560×450				
	17	560×450				
	17	560×500	100	95	250	
	17	630×315	100	100	290	
	17	630×400	100	100	290	
	17	630×500	100	100	290	

90° Elbow



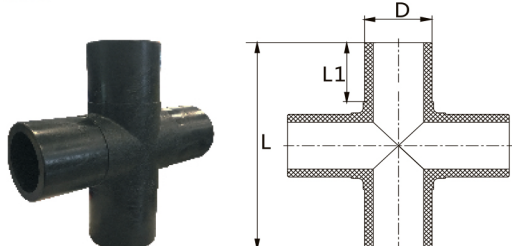
SAP Number (blue)	SDR	Size (mm)	Z	L	PCS/CTN
	11	75	132	75	30
	11	90	150	85	20
	11	110	163	87	12
	11	125	170.5	87	8
	11	160	200	100	5
	11	180	210	95	4
	11	200	225	100	3
	17	225	265	120	
	11	225	265	120	
	17	250	292	130	
	11	250	292	130	
	17	280	316	138	
	11	280	316	138	

45° Elbow



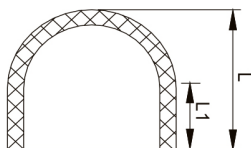
SAP Number (blue)	SDR	Size (mm)	L1	L2	PCS/CTN
	11	75	80	124	30
	11	90	85	136	18
	11	110	87	145	12
	11	125	87	150	10
	17	160	100	175	4
	11	160	100	175	4
	17	180	105	183	3
	11	180	105	183	3
	17	200	110	193	3
	11	200	110	193	3
	17	225	122	215	
	11	225	122	215	
	17	250	130	232	
	11	250	130	232	
	17	280	140	250	
	11	280	140	250	

Cross



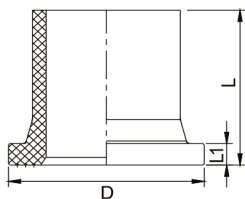
SAP Number (black)	SDR	Size (mm)	L1	L	D	PCS/CTN
	11	63	63	220	67	
	11	75	70	254	79	
	11	90	79	288	95	
	11	160	98	426	160	

Cap



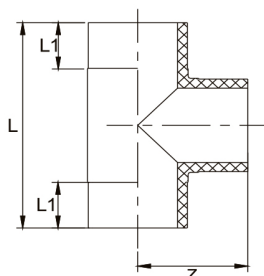
SAP Number (blue)	SDR	Size (mm)	L1	L	PCS/CTN
	11	63	50.5	82	
	11	75	75	111	100
	17	90			60
	11	90	72	117	60
	11	110	72	127	40
	11	125	79.5	142	24
	11	160	98	179	15
	11	180	114.5	184	12
	11	200	114.4	199	8
	11	225	108.4	204	5
	11	250	118.2	224	4
	13.6	280	104.6	220	4
	11	315	94.5	140	
	17	355	62	120	
	11	400	82.4	150	

Stub Flange



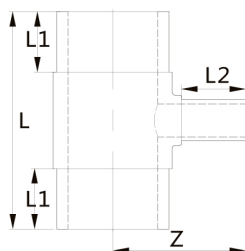
SAP Number (blue)	SDR	Size (mm)	L1	L	D	PCS/CTN
	11	50	10	86	90	
	11	63	11	100	102	
	11	75	16	125	122	48
	11	90	17	140	138	24
	11	110	18	160	158	18
	11	125	18	160	158	16
	11	160	25	180	212	6
	11	180	30	184	212	6
	11	200	32	200	268	4
	11	225	25	195	268	4
	11	250	34	150	320	4
	11	280	35	145	320	3
	11	315	33	145	370	3
	17	315	33	145	370	
	13.6	355	31	120	432	2
	17	400	33	140	482	1
	11	450	50	120	545	
	17	450	50	120	545	
	26	500	46	170	585	
	17	500	46	170	585	
	26	560	50	195	685	
	17	560	50	195	685	
	26	630	50	160	685	
	17	630	50	160	685	

Tee



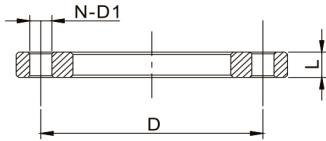
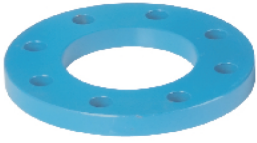
SAP Number (blue)	SDR	Size (mm)	L1	L	Z	PCS/CTN
11		63				
11		75	75	264	132	18
11		90	85	300	150	14
11		110	87	326	163	8
11		125	90	325	163.5	6
11		160	100	400	210	3
11		180	95	420	420	3
11		200	103	456	228	2
17		225	120	530	265	
11		225	120	530	265	
11		250	130	600	300	
17		250	130	600	300	
11		280	138	632	316	
17		280	138	632	316	
17		315	150	710	355	
11		315	150	710	355	
17		355	103.5	660	330	
26		355	103.5	660	330	
17		400	102	715	357.5	

Reducing Tee



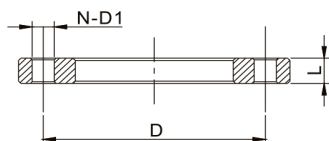
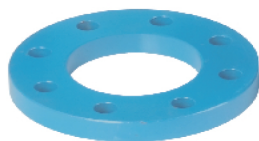
SAP Number (blue)	SDR	Size (mm)	L1	L2	L	Z	PCS/CTN
11		110×63	87	85	302	160.75	10
11		110×75	87	84.5	302	161.25	10
11		110×90	87	87	302	162.25	9
11		160×63	92.5	92	333	190	6
11		160×75	92.5	91.5	333	188.5	5
11		160×90	92.5	91.5	333	188.5	5
11		160×110	92.5	90.5	333	186	5
11		200×90	112		420	220	2
17		200×110	114	84	373	205	2
11		200×110	114	84	373	205	2
17		200×160	100	100	426	230	2
11		200×160	100	100	426	230	2
11		250×63	130		500	250	
17		250×110	130	84	460	248	
11		250×110	130	84	460	248	
17		250×160	130	100	510	270	
11		250×160	130	100	510	270	

Flange (Steel Tray)



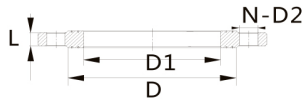
SAP Number (black)	SAP Number (blue)	Size (mm)	D	D1	N	L	PCS/CTN
SDR26 (0.6MPa)							
		1000	1120	30	28	26	
		1400	1560	36	36	27	
		1600	1760	36	40	29	
SDR21 (0.8MPa)							
		315					
		1200					
SDR17 (1.0MPa)							
		75					
		90					
		110					
		180					
		200	295	22	8	24	
		225	295	22	8	24	
		250	350	22	12	26	
		280	350	22	12	26	
		315	400	22	12	28	
		355	460	22	16	30	
		400	515	26	16	32	
		450	565	26	20	32	
		500	620	26	20	32	
		560	725	30	20	36	
		630	725	30	20	36	
		710	840	30	24	36	
		800	950	33	24	36	
		900	1050	33	28	33	
		1000	1160	36	28	38	
		1200	1380	39	32	44	
SDR13.6 (1.25MPa)							
		110					
		160					
		450					

Flange(Steel Tray)



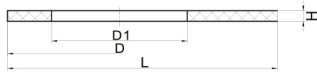
SAP Number (black)	SAP Number (blue)	Size (mm)	D	D1	N	L	PCS/CTN
SDR11 (1.6MPa)							
	8010043912	50	110	18	4	10	
	8010043071	63	125	18	4	12	
	8010040566	75	145	18	4	18	48
	8010040567	90	160	18	8	20	36
	8010040560	110	180	18	8	22	32
	8010043518	125	180	18	8	22	32
	8010040561	160	240	22	8	24	15
	8010040562	180	240	22	8	24	15
	8010040563	200	295	22	12	26	8
	8010043517	225	295	22	12	26	
	8010040564	250	355	26	12	29	4
	8010043503	280	355	26	12	29	
	8010040565	315	410	26	12	32	3
	8010043516	355	470	26	16	35	
	8010043260	400	525	30	16	32	
	8010043261	450	585	30	20	37	
	8010043262	500	650	33	20	44	
	8010043704	560					
	8010041534	630	770	36	20	54	
	8010041535	800	950	39	24	42	
		1200					

Spacer Flange



SAP Number	SDR	Size (mm)	D	D1	L	N	D2	PCS/CTN
	11	110	150	120	20	8	18	
	11	160	210	170	24	8	23	
	17	160	210	170	22	8	23	
	11	200	269	210	32	12	23	
	17	200	269	210	28	8	23	

Rubber Gasket



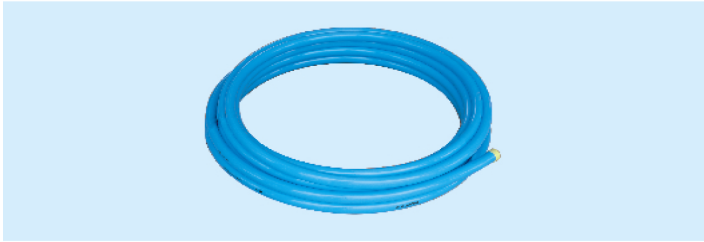
SAP Number	Size (mm)	D1	D	L	H	PCS/CTN
	75	62	127	153.5	3.5	
	90	74	142	168.5	3.5	
	110	90	158	184.5	3.5	
	125	102	162	188	3.5	
	140					
	160	131	212	238.5	3.5	
	180	148	212	238.5	3.5	
	200	148	268	294.5	3.5	
	225	184	273	299.5	3.5	
	250	204	320	346.5	3.5	
	280	229	320	346.5	3.5	
	315	258	370	396.5	4	
	355	302	438	464.5	4.5	
	400	327	482	508.5	5	
	450	400	540	566	5	
	500	442	590	816	5	
	560	516	690	716	5	
	630	556	690	716	5	
	710	630	810	837	5	
	800	738	915	942.5	5	
	900	770	1005	1085.5	6	
	1000	860	1110	1185	6	
	1200	1045	1328	1419	6	
	1400	1280	1510	1595	6	
	1600	1465	1710	1795	6	

3.1 Corrosion resistance.

3.2 No leaks in the fusion weld joint. PE pipe are mainly used fusion weld joint to ensure the identity of the material, structure of the fittings and the pipe.

3.3 The great technical and economic value of the flexibility of PE piping system. Mainly as below:

3.3a PE pipe can be coiled due to it's excellent flexibility, can be supplied with long length, avoiding the mass usage of joint and fittings, reducing the workload of joint. By considering the practicality, our company can supplied coiled PE pipe if the diameter not more than 63mm.



3.3b For reducing workload of joint, PE pipe in large diameter can be joint on the ground (outside the groove) before devoted into the groove.



3.3c Directional drilling technique can be used in the joint of the PE pipe in some places due to it's flexibility, lightweight and excellent scratch resistance. Suitable place includes the road, base of the railroad, river, etc.



3.3d Submerge the long pipe when laying the PE pipe in the river or lake. Connect the pipe on the fixed location before the pipes are submerged with heavy articles.



3.3e Repair the old urban water supply pipe by PE pipe as the lined pipe.



3.4 Effective resist the underground movement and the point load. PE pipe has excellent flexibility and strong differential settlement resistance, the extension rate at break has exceeds 350%.

3.5 Excellent resistance to fast crack propagation.

3.6 Long service life. The PE pipe can be used for more than 50 years under proper use.

3.7 Environment-friendly. PE pipe can be recycled. It won't produce harmful matter to the environment even burn it out.



(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.

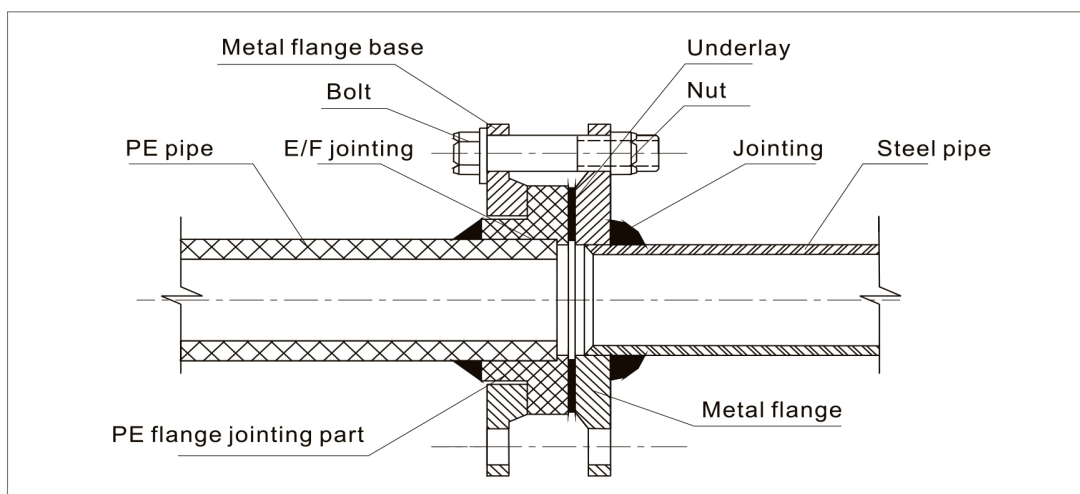
Recommended welding parameter, which should be followed by the welders

Wall Thickness (mm)	Preheating Curling Height (mm) (Preheating Temperature is 210±10°C)	Preheating Time(s) (Temperature is 210±10°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

(4) Transition Joint

Join the PE pipe and the iron pipe by Flange Joint

- ① Preparation
 - Prepare the necessary tools and accessories. ■ Check and clean the accessories.
- ② Put the pipe in the flange tray.
- ③ Use socket fusion joint or butt fusion joint on the pipe and the flange stub.
- ④ Put the rubber ring between the two flange stubs, and then tighten the bolts.



Trenchless Technology

The technology of detecting, laying, repairing and changing various kinds of pipe by no excavation or less excavation.

Horizontal Directional Drilling Technology

The installation technology of directional drilling, chambering and pulling the pipe from different depth and different stratum by using the directional drilling equipments and location apparatus.

