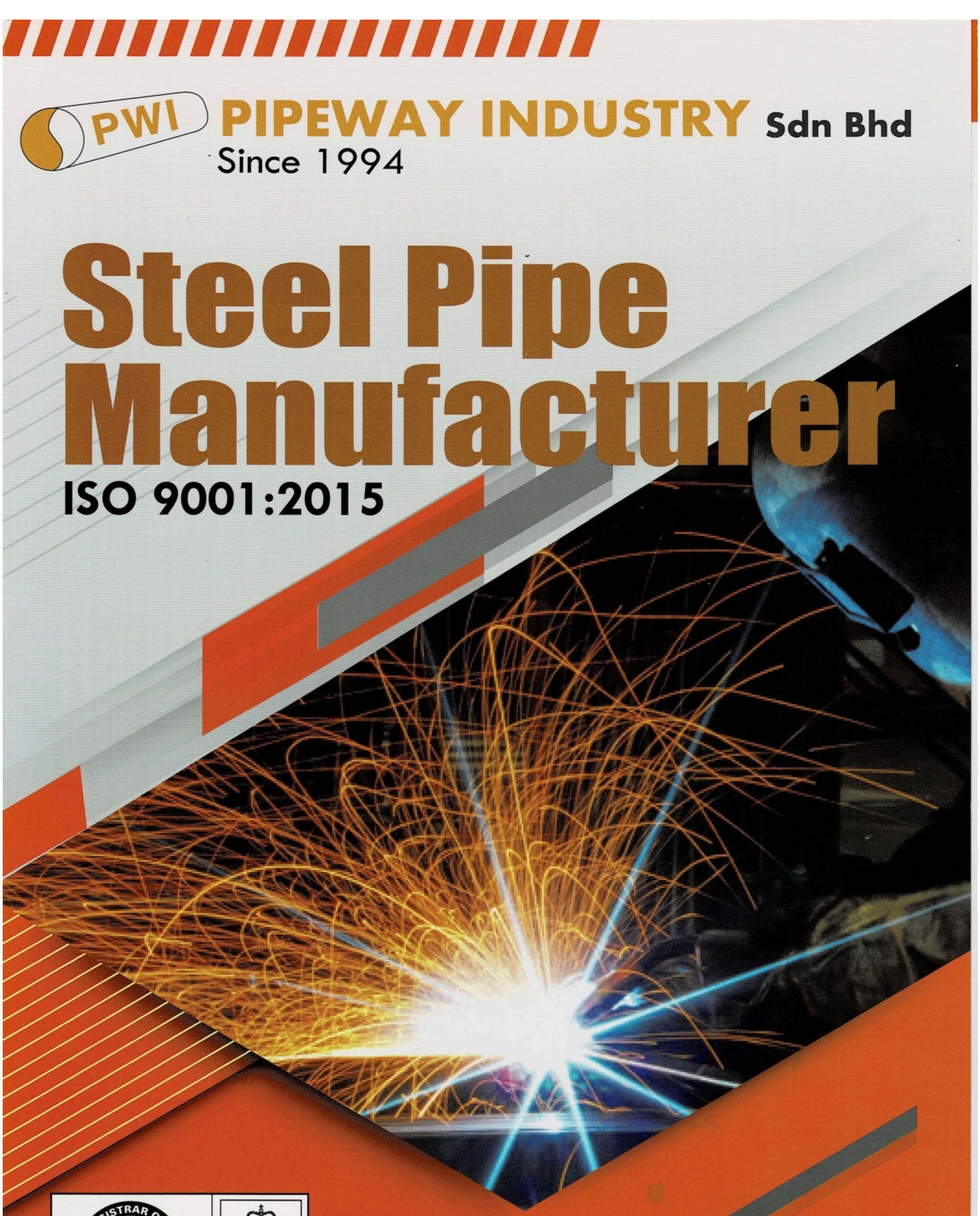
PWI

PIPEWAY INDUSTRY Sdn Bhd

Since 1994

Steel Pipe Manufacturer

ISO 9001:2015



Reg to ISO 9001:2015
Cert No : 73180

PWI

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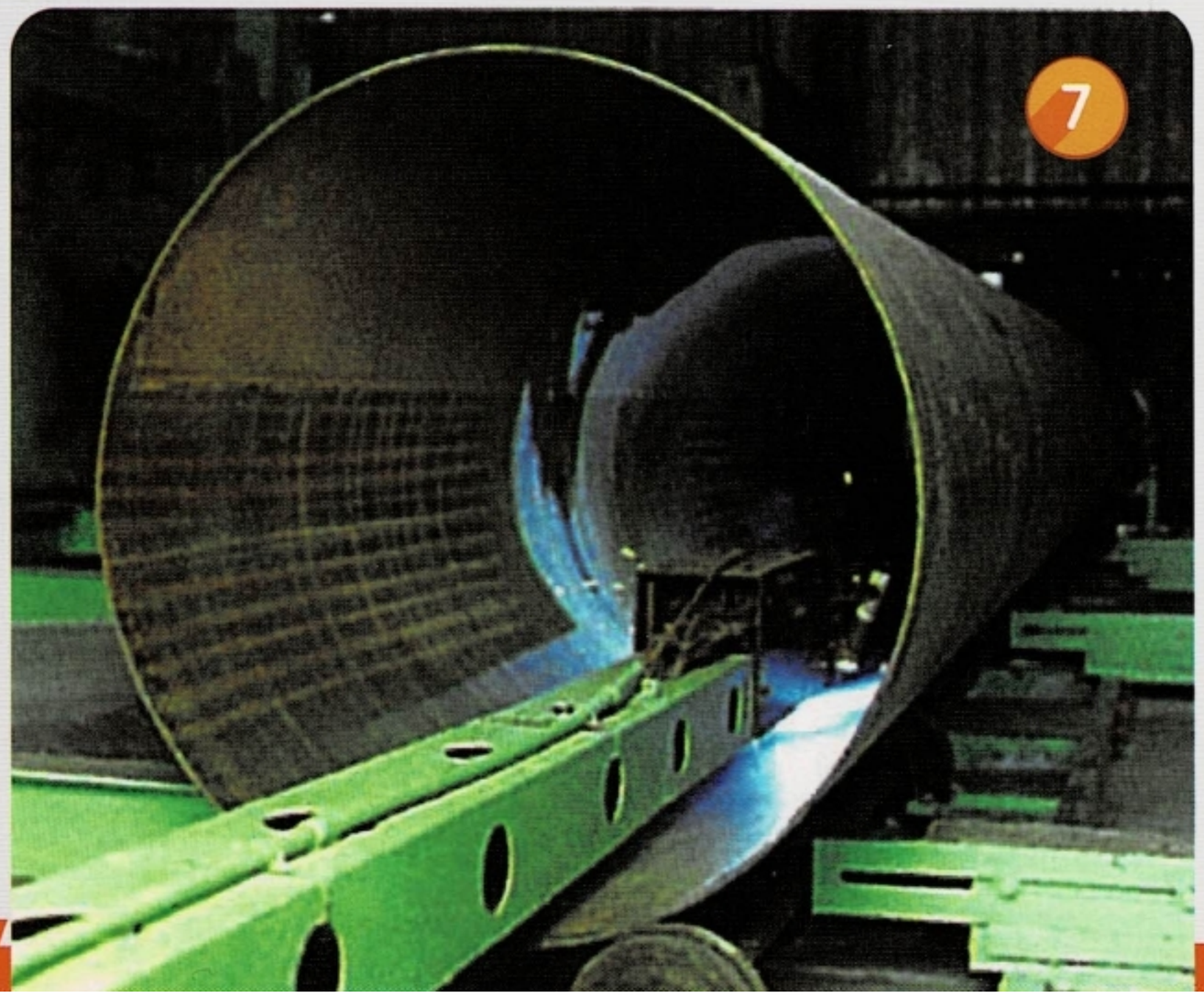
Sdn Bhd

Manufacturing Process Flow.

1. Plate cutting
2. Pre-bending the plate
3. Rolling of plate
4. Tack and closed weld and jointing
5. Automatic external longitudinal weld
6. Automatic external circumferential weld
7. a) Automatic internal longitudial weld
   b) Automatic internal circumferential weld
8. Spherical spigot, forming and hydrostatic pressure testing
9. External shell cleaning grit blasting
10. a) Primer coating
    b) Bitumen lining reinforced with fibreglass inner wrap and outer wrap
11. Centrifugal spinning and concrete lining process

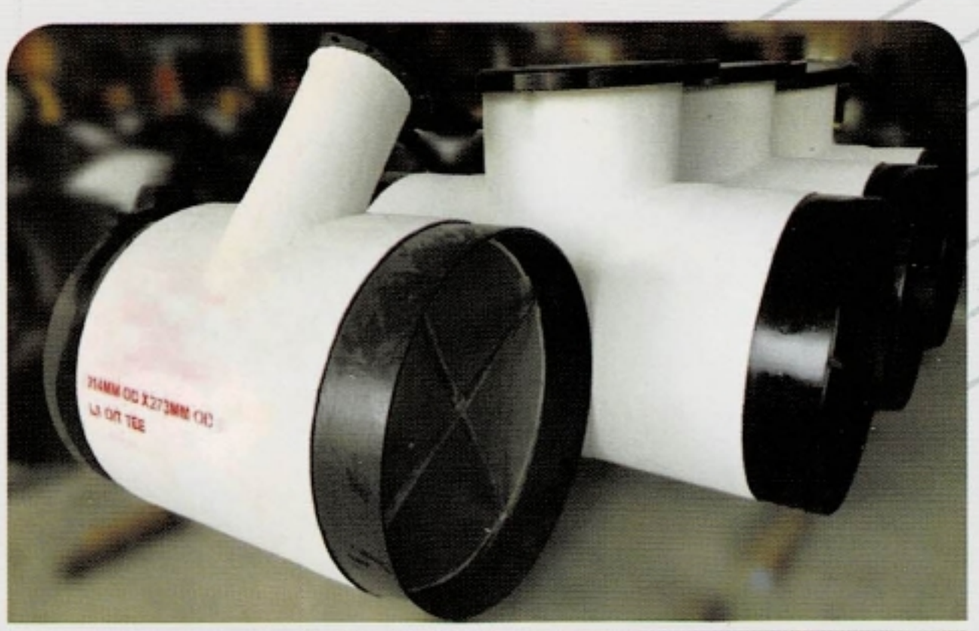


Steel Pipe Products

Fitting & Accessories

Pipe End Preparation & Pipe Joint

- Collar joints
- Spigot and socket end type sleeve joints
- Slip on type couplings
- Flange joints
- Threaded couples joints



Joint & Accessories

- Long length joint
- On-site joint

Steel Pipe Dimensions

Technical Data

Nominal Diameter (inches)	Outside Diameter (mm)	Cement Lining Thickness\ (mm)	Wall Thickness\ (mm)	APPROXIMATE MASS PER METRE			
				Bare Steel Shell (kg)	Concrete Lining (Kg)	Bitumen Enamel Wrapping (kg)	Maximum Test Pressure (bar)
100	114.3	6	3.6	9.83	4.42	1.49	70.0
125	139.7	6	3.6	12.1	5.53	1.82	70.0
150	168.3	6	3.6	14.6	6.77	2.18	70.0
175	193.7	10	4.0	18.7	12.8	2.50	70.0
200	219.1	10	4.0	21.2	14.6	2.83	70.0
225	244.5	10	4.0	23.7	16.5	3.15	70.0
250	273.0	10	4.0	26.5	18.6	3.51	64.5
300	323.9	10	4.0	31.6	22.3	4.16	54.3
350	355.6	13	4.5	39.0	31.6	4.56	55.7
400	406.4	13	4.5	44.6	36.4	5.21	48.7
450	457.0	13	5.0	55.7	41.1	5.85	48.2
500	508.0	13	5.0	62.0	45.9	6.50	43.4
550	559.0	13	6.3	85.9	50.5	7.15	49.6
600	610.0	13	6.3	93.8	55.3	7.80	45.4
650	660.0	19	6.3	102.0	86.9	8.43	42.1
700	711.0	19	6.3	109.0	94.0	9.08	39.0
750	762.0	19	6.3	117.0	101.0	9.73	36.3
800	813.0	19	7.1	141.0	108.0	10.40	38.4
850	864.0	19	7.1	150.0	115.0	11.0	36.2
900	914.0	19	8.0	159.0	122.0	11.70	34.2
1000	1016.0	19	8.0	177.0	136.0	13.0	30.7
1200	1219.0	19	10.0	239.0	164.0	15.6	28.8
1400	1422.0	25	10.0	306.0	251.0	18.1	27.2
1600	1626.0	25	11.0	398.5	287.0	20.6	27.0
1800	1829.0	25	12.5	493.2	323.0	23.2	26.4
2000	2032.0	25	14.2	622.5	356.0	25.7	27.0
2200	2235.0	25	16.0	777.7	394.0	28.3	28.0

Note :

1. Outside diameter and wall thickness are based on Table 4 of SPAN TS 21827 : Part 2 :2013
2. The wall thickness given is the minimum considered suitable for general use under normal conditions.
3. Concrete lining thickness is based on Table 11 of SPAN TS 21827 : Part 1 :2013
4. Other outside diameters and wall thickness of steel pipes can be manufactured.

Welded Steel Pipe Special

(Gusseted Bend Dimensions)

SPAN TS 21827: Part 1: 2013

Nominal Diameter	Outside Diameter	TYPE 1	TYPE 2				TYPE 3	
		Not More Than 30°	Over 30° to 45°		Over 45° to 60°		Over 60° to 90°	
		L_1	R	L2	R	L2	R	L3
mm	mm	mm	mm	mm	mm	mm	mm	mm
100	114.3	175	150	200	150	250	150	300
125	139.7	200	200	250	200	250	200	350
150	168.3	225	225	300	225	300	225	400
175	193.7*	275	275	300	275	300	275	400
200	219.1	300	300	350	300	400	300	500
225	244.5'	300	350	350	350	400	350	550
250	273	375	375	450	375	500	375	650
300	323.9	375	450	450	450	500	450	700
350	355.6	450	525	550	525	600	525	800
400	406.4	450	600	600	600	600	600	850
450	457	450	675	600	450	600	450	850
500	508	450	750	600	500	600	500	850
550	559	450	825	650	550	600	550	850
600	610	550	900	750	600	750	600	1000
650	660	550	975	750	650	750	650	1000
700	711	550	1050	800	700	750	700	1100
750	762	600	1125	850	750	850	750	1100
800	813	600	1200	850	800	850	800	1200
850	864	600	1275	850	850	850	850	1200
900	914	600	1350	900	900	900	900	1300
1000	1016	750	1500	1100	1000	1100	1000	1500
1200	1219	850	1800	1200	1200	1200	1200	1700
1400	1420	850	2100	1300	1400	1300	1400	1900
1600	1628	900	2400	1400	1600	1400	1600	2100
1800	1829	900	2700	1500	1800	1500	1800	2200
2000	2032	1000	3000	1600	2000	1600	2000	2500
2200	2235	1000	3300	1700	2200	1700	2200	2600

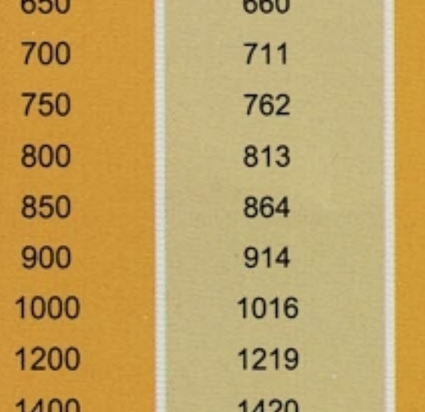


Figure 1
Gusseted bend TYPE 1, not more than 30°

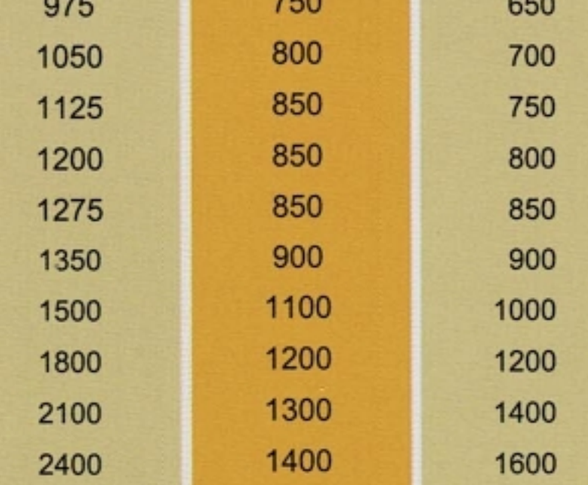


Figure 2
Gusseted bend TYPE 2, over 30° up to 60°

Figure 3
Gusseted bend TYPE 3, over 60° up to 90°

Note: *Other design of gusseted bend or bend can be manufactured.*

Welded Steel Pipe Special

(Tee Dimensions)

SPAN TS 21827: Part 1: 2013

Nominal Diameter (mm)	BARREL		BRANCH			
	Outside Diameter A	C	Outside Diameter B	D	E	F
				0.5 Times o.d. of barrel "A" Plus		
mm	mm	mm	mm	mm	mm	mm
50	60.3	240	60.3	200	100	100
65	76.1	240	76.1	200	100	100
80	88.9	250	88.9	200	100	110
100	114.3	270	114.3	200	100	130
125	139.7	280	139.7	200	110	140
150	168.3	290	168.3	200	110	140
175	193.7*	300	193.7*	200	110	150
200	219.1	370	219.1	250	110	150
225	244.5*	380	244.5*	250	130	160
250	273	410	273	250	130	160
300	323.9	450	323.9	250	130	160
350	355.6	530	355.6	300	150	200
400	406.4	600	406.4	300	150	230
450 - 700	457 to 711	1.5 times o.d. of branch"B" But with a minimum of 0.5 times o.d. of barrel "A"	457 to 711	300	230	300
750 - 900	762 to 914		762 to 914	380	300	300
1000 - 2200	1016 to 2235		1016 to 2235	380	380	380

Note :
The diagrams show details and dimensions of unreinforced tees only. If design criteria or operation conditions require that the tees or Y-branches be provided with proper reinforcedments, Pipeway can supply them with reinforcements to the requirements of **AWWA M11** or as specified by client.Typical Reinforcement details of tees and angle branches are as above.

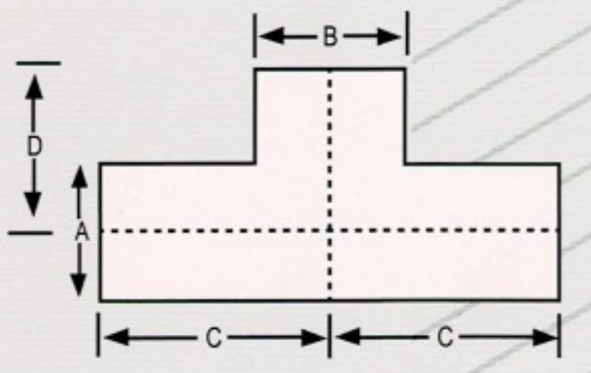


Figure 4
Plain end tee for slip-on type coupling and butt welded joint.

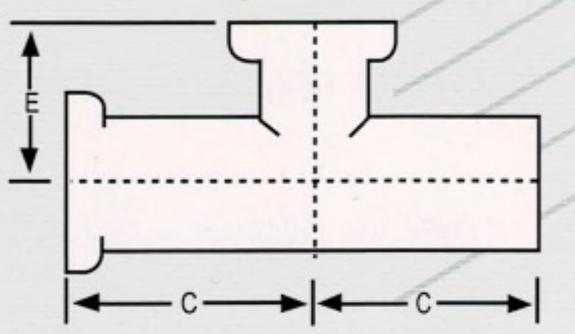


Figure 5
Sleeve joint tee for welding

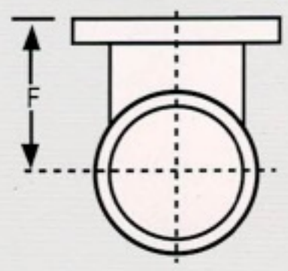
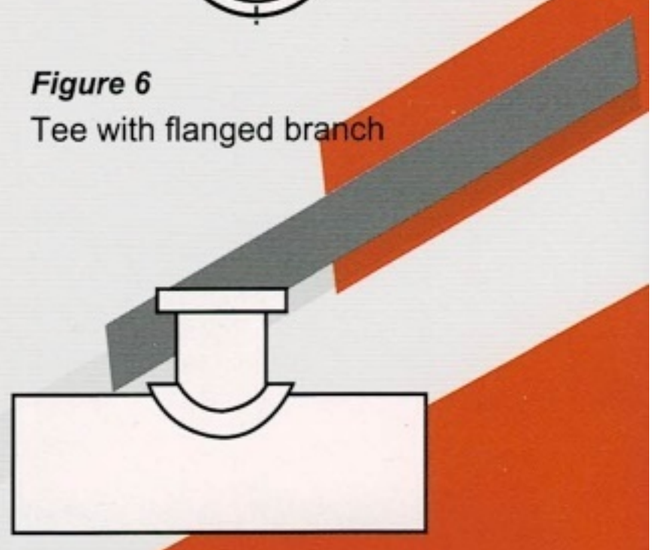
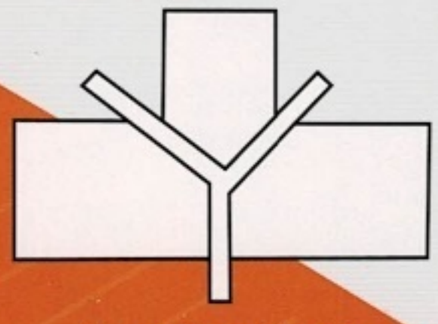


Figure 6
Tee with flanged branch

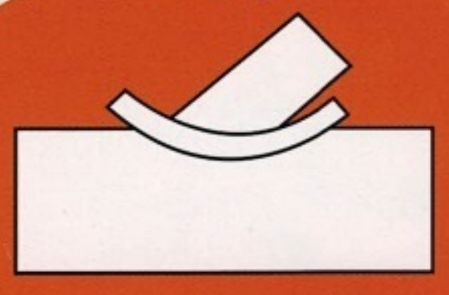


Compensating Plate Type



ThreePiece Crotch Plate WYE Type

Two Piece Crotch Plate WYE Type



One Piece Crotch Plate WYE Type