



HTVB

ALPINE PIPE®.com



Mild Steel Concrete Lined Pipes
ERW & SSAW
SPAN TS 21827



ABOUT ALPINE PIPE MANUFACTURING MALAYSIA

Alpine Pipe Manufacturing Sdn Bhd is a wholly-owned subsidiary of Hiap Teck Venture Berhad (HTVB), a company listed on Malaysia's Stock Exchange (Bursa Malaysia) since 2003. It is the key producer of ERW steel pipes and hollow sections serving the building, infrastructure, construction, water, oil & gas and general manufacturing industries.

With the vast knowledge and expertise acquired through pipes manufacturing spanning over decades, we are able to produce pipes that meet stringent requirements and specifications. Through a process-oriented improvement approach, and the constant exposure of our team of experienced staff to new technologies, our position has further enhanced us as one of the market leader and preferred supplier for both standard and customized products.





Spiral Submerged-Arc Welding (SSAW) & Electric Resistance Welding (ERW)

Driven by the need for continuous improvement in pipe quality, forming process, tooling optimization and product development, our management has placed great emphasis and investment in research and development activities. The use of computer software programs coupled with the experience and skills of our research engineers has brought about an excellence quality product that meets the requirements of our customers.

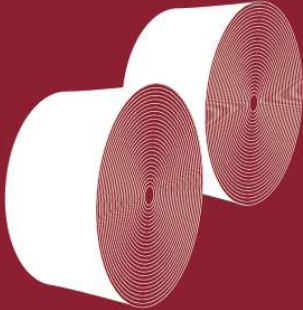


In recent years, Alpine has ventured into infrastructure industry as a manufacturer of Mild Steel Concrete Lined (MSCL) pipes. Its annual capacity for both Electric Resistance Welding (ERW) and Spiral Submerged-Arc Welding (SSAW) are 500,000MT and 30,000MT respectively. Alpine Pipe Manufacturing is certified by IKRAM and SPAN of producing MSCL pipes ranging from 100mm to 1600mm in nominal diameter.



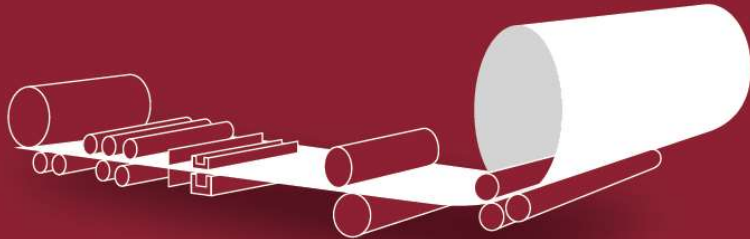
WORK PROCESS FLOW

1



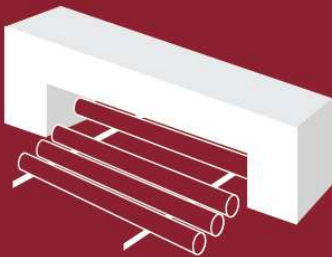
Slitted Steel Coil

2



Pipe Forming

3



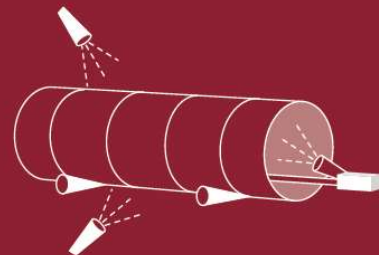
100% Hydrostatic Testing and
End Forming

4



X-ray Radiography Inspection

5



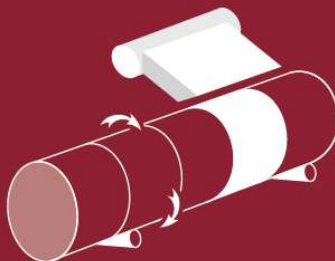
Blast Cleaning

6



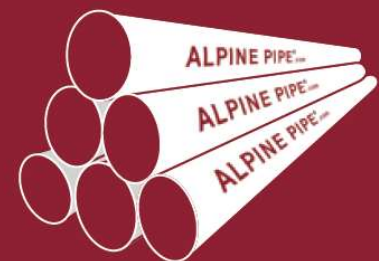
Internal Cement Lining

7



External Bitumen and
Fibreglass Wrapping

8



Finished Goods Cleaning

Mild Steel Concrete Lined Pipes (SPAN TS 21827)

Nominal Diameter		Outside Diameter	Wall Thickness	Concrete Lining Thickness	Approximate Mass Per Metre			Testing Pressure	Total Approx. Weight Per Metre*	Welding
					Bare Steel Shell	Concrete Lining	Bitumen Wrapp 3mm			
inch	mm	mm	mm	mm	kg/m	kg/m	kg/m	bar	kg	
4	100	114.3	3.6	6	9.83	4.4	1.5	70	15.73	ERW
6	150	168.3	3.6	6	14.62	6.7	2.2	70	23.52	
8	200	219.1	4.0	10	21.22	14.5	2.9	70	38.62	
10	250	273.0	4.0	10	26.54	18.4	3.5	56	48.44	
12	300	323.9	4.0	10	31.53	22.0	4.2	48	57.73	
14	350	355.6	4.5	13	38.96	31.0	4.6	49	74.56	SPIRAL
16	400	406.4	4.5	13	44.60	36.0	5.3	43	85.9	
18	450	457.0	5.0	13	55.73	41.0	5.9	42	102.63	
20	500	508.0	5.0	13	62.02	46.0	6.6	38	114.62	
22	550	559.0	6.3	13	85.87	50.0	7.2	43	143.1	
24	600	610.0	6.3	13	93.79	55.0	7.9	40	156.69	
26	650	660.0	6.3	19	101.56	86.0	8.5	37	196.06	
28	700	711.0	6.3	19	109.49	93.0	9.2	34	211.69	
30	750	762.0	6.3	19	117.41	100.0	9.8	32	227.21	
32	800	813.0	7.1	19	141.11	107.0	10.5	34	258.61	
34	850	864.0	7.1	19	150.64	114.0	11.0	32	275.60	
36	900	914.0	8.0	19	178.74	121.0	11.8	34	311.54	
38	950	965.2	8.0	19	188.84	128.0	12.40	32	329.2	
40	1000	1016.0	8.0	19	198.86	135.0	13.1	30	347.0	
44	1100	1118.0	8.0	19	218.98	149.0	14.40	28	382.4	
48	1200	1219.0	10.0	19	298.14	162.0	15.7	32	475.8	
52	1300	1320.0	10.0	25	323.05	230.0	17.0	32	570.1	
56	1400	1422.0	10.0	25	348.20	249.0	18.3	27	615.5	
60	1500	1520.0	11.0	25	409.34	266.0	20.0	32	695.3	
64	1600	1626.0	11.0	25	438.10	285.0	21.0	26	744.1	

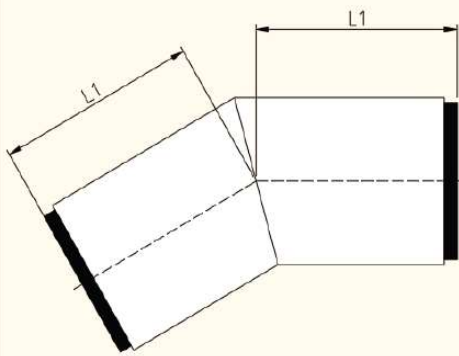
*Approximate weight only

Mild Steel Concrete Lined Pipes (JKR Dimension)

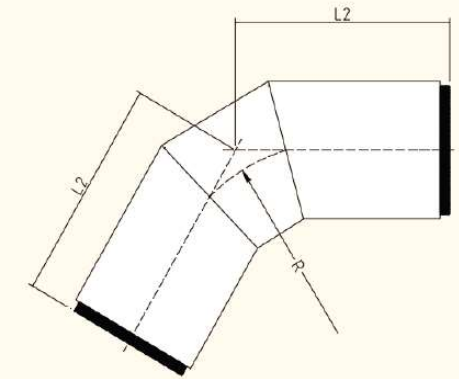
Nominal Diameter		Finished Internal Diameter	Finished Outside Diameter	Wall Thickness	Concrete Lining Thickness	Approximate Mass Per Metre			Maximum Testing Pressure	Total Weight Per Metre*	Welding
						Bare Steel Shell	Concrete Lining	Bitumen Wrapping			
inch	mm	mm	mm	mm	mm	kg	kg	kg	bar	kg	
4	100	93.7	121.9	4.1	10	12.47	7.78	1.59	70	21.84	ERW
6	150	149.1	177.3	4.1	10	18.35	11.93	2.29	70	32.57	
8	200	204.0	232.2	4.1	10	24.17	16.05	4.52	70	44.73	
10	250	257.8	286.0	4.1	10	29.87	20.08	5.54	70	55.50	
12	300	313.8	345.4	5.8	10	50.22	24.28	8.94	70	83.44	
14	350	361.7	399.3	5.8	13	58.20	36.52	10.31	63	105.03	SPIRAL
16	400	415.5	453.1	5.8	13	66.16	41.77	11.68	56	119.61	
18	450	469.4	507.0	5.8	13	74.13	47.02	13.05	50	134.21	
20	500	522.7	560.3	5.8	13	80.67	52.22	14.41	45	147.30	
24	600	628.0	667.0	6.5	13	107.49	62.48	17.13	42	187.10	
26	650	651.2	692.0	7.4	13	126.61	64.74	17.76	39	209.11	
28	700	701.2	754.0	7.4	19	138.07	102.60	19.34	39	260.02	
30	750	751.2	804.0	7.4	19	147.32	109.73	20.61	34	277.66	
32	800	801.2	854.0	7.4	19	156.57	116.85	21.88	34	295.30	
34	850	851.2	904.0	7.4	19	165.82	123.97	23.16	30	312.95	
36	900	901.2	954.0	7.4	19	175.07	131.10	24.43	30	330.59	
40	1000	1000.0	1054.0	8.0	19	208.93	145.17	26.97	30	381.07	
42	1050	1050.0	1107.0	9.5	19	259.81	152.30	28.32	30	440.43	
44	1100	1100.0	1157.0	9.5	25	271.65	208.64	29.59	30	509.88	
46	1150	1150.0	1219.0	9.5	25	286.33	220.26	31.17	30	537.76	
48	1200	1200.0	1270.0	10.0	25	313.82	229.63	32.47	30	575.92	
52	1300	1300.0	1372.0	11.0	25	372.54	248.38	35.07	29	655.98	
56	1400	1400.0	1472.0	11.0	25	399.91	267.12	37.61	29	704.64	
60	1500	1500.0	1576.0	13.0	25	504.92	285.87	40.26	26	831.05	
64	1600	1600.0	1616.0	13.0	25	517.84	293.37	41.27	26	852.48	

*Approximate weight only

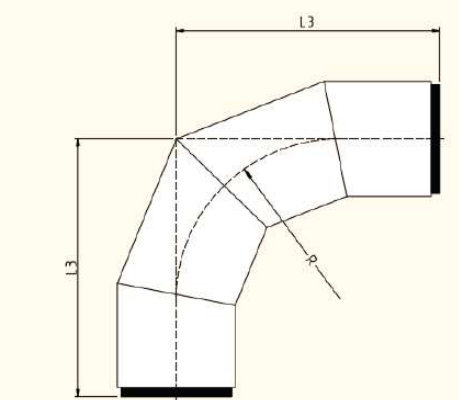
PIPE SPECIALS & FITTINGS



**Pic 1 : Gusseted bend type 1
not more than 30°**



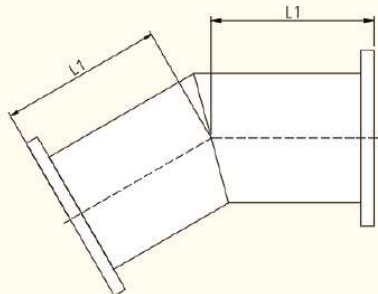
**Pic 2 : Gusseted bend type 2
over 30° up to 60°**



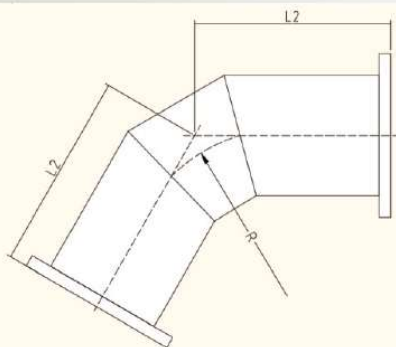
**Pic 3 : Gusseted bend type 3
over 60° up to 90°**

Pipe N.D.	Pipe N.D.	Type 1	Type 2				Type 3	
		Not more than 30°	Over 30° to 45°		Over 45° to 60°		Over 60° to 90°	
mm	mm	L1 mm	R mm	L2 mm	R mm	L2 mm	R mm	L3 mm
100	114.3	175	150	200	150	250	150	300
150	168.3	225	225	300	225	300	225	400
200	219.1	300	300	350	300	400	300	500
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	1422	850	2100	1300	1400	1300	1400	1900
1600	1626	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

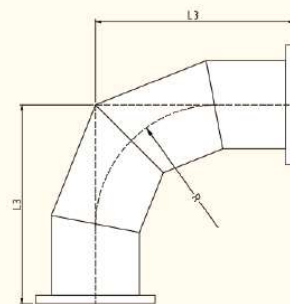
** The purchaser shall specify the outside diameter, wall thickness and angle may be agreed between the purchaser and manufacturer at the time of enquiry and order.



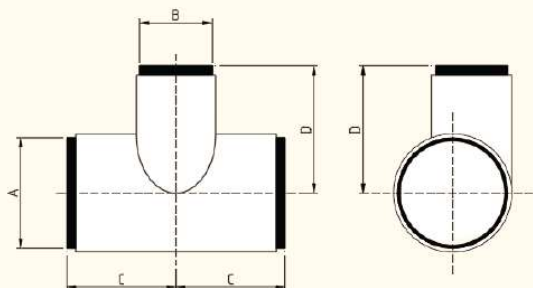
Pic 1 : Gusseted bend 30° with flange



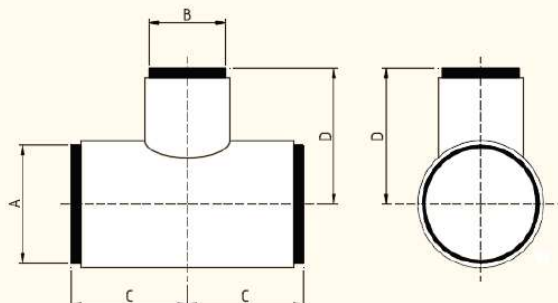
Pic 2: Gusseted bend 30° - 60° with flange



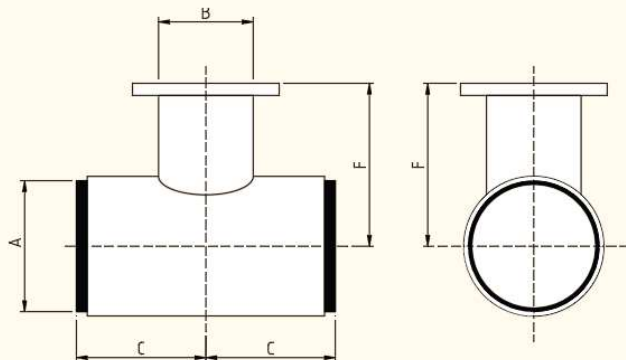
Pic 3: Gusseted bend 60° - 90° with flange



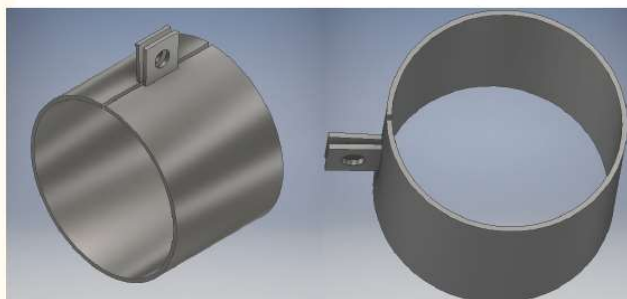
Pic 4: Plain End Tee Level Inverted T



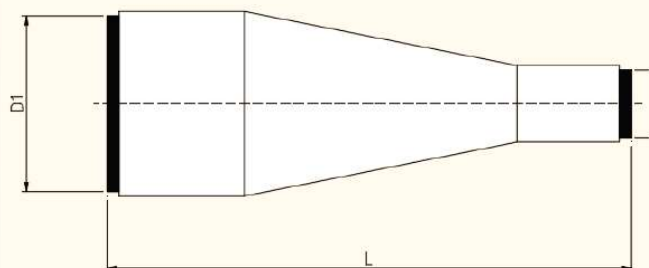
Pic 5: Plain End Tee for Slip-on-type coupling



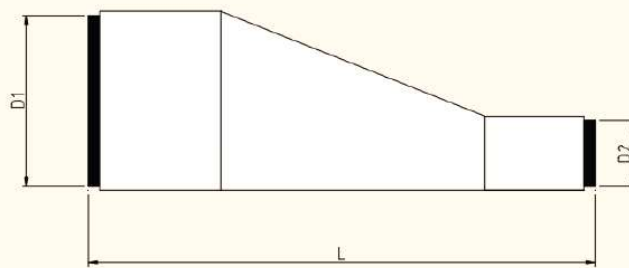
Pic 6: Tee with flange branch



Collar



Pic 7: Concentric Taper



Pic 8: Eccentric or flat taper

**** The purchaser shall specify the outside diameter, wall thickness and angle may be agreed between the purchaser and manufacturer at the time of enquiry and order.**



Certified by:



Jabatan Air Negeri Sabah



Pihak Berkuasa Air Negeri Sarawak

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