



MATTHEW DAVIS Australia Pty. Ltd.

ACN 142 493 669 ABN 59 142 493 669
P.O. Box 536, Braeside Victoria, 3195
102-104 Malcolm Road, Braeside, Victoria, 3195
Telephone: (03) 9580 0066 Facsimile: (03) 9587 2829

Linepipe Pressure and Temperature Ratings - Page 1

SEAMLESS CARBON STEEL PIPE to ASTM A106-B, API 5LB & ASTM A53

Maximum allowable pressure / temperature ratings** in kPa for chemical plant and petroleum refinery piping systems to ANSI / ASME B31.3A - 1981

Nominal Size DN	Wall Thickness		Temp C°	-29 to 38 C°	205 C°	260 C°	350 C°	370 C°	400 C°	430 C° *	450 C° *
	Schedule	mm	Stress (SE) in kPa	137800	137800	130221	117130	115752	89570	74412	59943
15	STD	40	2.77	34416	34416	32528	29255	28910	22372	18589	14972
		80	3.73	48092	48092	45446	40878	40396	31260	25969	20918
	XS	160	4.78	62830	62830	59378	53404	52777	40837	33926	27333
XXS		7.47	98245	98245	92836	83507	82522	63857	53053	42739	
		40	2.87	28070	28070	26526	23860	23578	18245	15158	12209
20	STD	80	3.91	39418	39418	37247	33506	33106	25617	21283	17142
		160	5.56	58152	58152	54955	49429	48843	37799	31398	25293
	XXS	7.82	83107	83107	78539	70643	69809	54024	44881	36152	
25	STD	40	3.38	26251	26251	24804	22310	22048	17060	14173	11417
		80	4.55	36283	36283	34285	30862	30474	23584	19595	15785
	XS	160	6.35	52481	52481	49594	44606	44082	34112	28339	22827
XXS		9.09	77030	77030	72793	65476	64704	50070	41595	33506	
		40	3.56	21614	21614	20421	18369	18155	14049	11672	9404
32	STD	80	4.85	30178	30178	28518	25651	25348	19616	16295	13125
		160	6.35	40596	40596	38364	34505	34099	26389	21924	17659
	XXS	9.7	64601	64601	61045	54906	54266	41988	34884	28097	
40	STD	40	3.68	19444	19444	18375	16529	16329	12636	10550	8454
		80	5.08	27402	27402	25900	23295	23019	17811	14800	11919
	XS	160	7.14	39738	39738	37599	33816	33416	25858	21483	17308
XXS		10.16	58779	58779	55547	49966	49374	38205	31742	25569	
		40	3.91	16378	16378	15468	13925	13759	10645	8847	7124
50	STD	80	5.54	23653	23653	22351	20105	19871	15378	12774	10287
		160	8.74	38866	38866	36731	33037	32652	25266	20987	16908
	XXS	11.07	50793	50793	48003	43173	42670	33017	27429	22096	
65	STD	40	5.16	17914	17914	16929	15227	15048	11644	9674	7793
		80	7.01	24818	24818	23447	21097	20849	16129	13401	10797
	XS	160	9.53	34615	34615	32714	29420	29076	22503	18693	15055
XXS		14.02	53081	53081	50159	45116	44585	34498	28662	23088	
		40	5.49	15558	15558	14969	13222	13063	10108	8399	6766
80	STD	80	7.62	21986	21986	20780	18693	18472	14290	11871	9563
		160	11.13	33079	33079	31253	28111	27780	21497	17859	14386
	XXS	15.24	46976	46976	44392	39928	39459	30536	25369	20436	
100	STD	40	6.02	13187	13187	12464	11210	11079	8571	7124	5739
		80	8.56	19058	19058	18010	16198	16012	12388	12094	8289
	XS	120	11.13	25190	25190	23805	21407	21159	16371	13601	10955
XXS		160	13.49	31019	31019	29310	26368	26058	20160	16750	13208
		40	6.55	40348	40348	38129	34298	33892	26230	21786	17549
125	STD	80	9.53	11561	11561	10921	9825	9708	7517	6243	5038
		120	12.7	17060	17060	16122	14503	14331	11093	9212	7421
	XS	160	15.88	23130	23130	21855	19657	19430	15034	12492	10059
XXS		19.05	29407	29407	27787	24997	24701	19113	15881	12795	
		40	7.11	35897	35897	33926	30516	30158	23337	19388	15620
150	STD	80	7.11	10550	10550	9928	8924	8819	6828	5370	4568
		120	10.97	16474	16474	15571	14007	13842	10707	8895	7165
	XS	160	14.27	21745	21745	20553	18486	18265	14138	11747	9460
XXS		18.26	28325	28325	26768	24074	23784	18410	15296	12319	
		40	6.35	34608	34608	32707	29420	29069	22496	18686	15054
200	STD	20	6.35	7138	7138	6745	6063	5994	4637	3852	3100
		30	7.04	7924	7924	7489	6732	6656	5147	4279	3445
	XS	40	8.18	9246	9246	8737	7855	7765	6008	4995	4024
60		10.31	11741	11741	11093	9977	9860	7627	6339	5105	
80		12.7	14572	14572	13766	12388	12237	9474	7868	6338	
250	STD	100	15.09	17452	17452	16488	14834	14655	11341	9426	7593
		120	18.26	21345	21345	20174	18148	17935	13876	11527	9288
	XS	140	20.62	24308	24308	22971	20656	20415	15799	13125	10569
XXS		22.23	26334	26334	24877	22386	22124	17115	14221	11458	
		160	23.01	27340	27340	25838	23240	22964	17769	14765	11892
300	STD	20	6.35	5698	5698	5388	4844	4789	3707	3080	2480
		30	7.8	7028	7028	6642	5974	5905	4568	3796	3059
	XS	40	9.27	8385	8385	7923	7131	7048	5450	4527	3652
60		12.7	11596	11596	10955	9853	9736	7538	6263	5043	
80		15.09	13863	13863	13098	11781	11644	9012	7483	6028	
350	STD	100	18.26	16922	16922	15992	14386	14214	10996	9136	7359
		120	21.44	20036	20036	18934	17032	16825	13022	10817	8716
	XS	140	25.4	23998	23998	16474	20394	20153	15599	12960	10438
XXS		160	28.58	27229	27229	25734	23143	22875	17700	14703	11844
		20	6.35	4795	4795	4534	4072	4024	3114	2591	2088
400	STD	30	8.38	6359	6359	6008	5402	5540	4134	3431	2763
		40	9.53	7241	7241	6842	6153	6084	4706	3914	3149
	XS	60	10.31	7854	7854	7421	6676	6601	5015	4244	3417
XXS		12.7	9722	9722	9191	8268	8165	6318	5250	4230	
		60	14.27	10969	10969	10363	9322	9212	7131	5925	4768
450	STD	80	17.48	13525	13525	12850	11492	11362	8792	7303	5884
		100	21.44	16736	16736	15819	14227	14062	10879	9040	7283
	XS	120	25.4	20015	20015	18913	17011	16811	13008	10804	8702
XXS		140	28.58	22682	22682	21435	19278	19051	14744	12244	9866
		160	33.32	26740	26740	25273	22730	22461	17383	14441	11630