

Z2-600 Performance Data vs API-IJ

J-55, L-80/N-80



website - www.torquelock.com
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			1"		1-1/4"		1-1/2"		2-1/16"			
			Z2-600	API-IJ	Z2-600	API-IJ	Z2-600	API-IJ	Z2-600	API-IJ		
PIPE DATA		OD	in.	1.315	1.315	1.660	1.660	1.900	1.900	2.063	2.063	
		Nom. Wt.	lbs/ft	1.72	1.72	2.33	2.33	2.76	2.76	3.25	3.25	
		Wall	in.	0.133	0.133	0.140	0.140	0.145	0.145	0.156	0.156	
		ID Nom.	in.	1.049	1.049	1.380	1.380	1.610	1.610	1.751	1.751	
		Drift	in.	0.955	0.955	1.286	1.286	1.516	1.516	1.657	1.657	
		Area	in ²	0.4939	0.4939	0.6685	0.6685	0.7995	0.7995	0.9346	0.9346	
	J-55	Pipe Body Yield Strength (Tension)	1000 lbs	27,165	27,165	36,768	36,768	43,973	43,973	51,403	51,403	
		Min Collapse Pressure	lbs/in ²	10,000	10,000	8,490	8,490	7,750	7,750	7,690	7,690	
		Min Internal Yield (burst) ^{††}	lbs/in ²	9,730	9,730	8,120	8,120	7,350	7,350	7,280	7,280	
	L-80/N-80	Pipe Body Yield Strength (Tension)	1000 lbs	39,500	39,500	53,480	53,480	63,960	63,960	74,768	74,768	
		Min Collapse Pressure	lbs/in ²	14,550	14,550	12,360	12,360	11,280	11,280	11,180	11,180	
		Min Internal Yield (burst) ^{††}	lbs/in ²	14,160	14,160	11,810	11,810	10,680	10,680	10,590	10,590	
	CONNECTION DATA		OD	in.	1.550	1.550	1.880	1.880	2.110	2.110	2.325	2.325
			ID	in.	1.049	0.970	1.380	1.301	1.610	1.531	1.751	1.672
			Makeup Loss	in.	2.375	1.12	2.440	1.26	3.250	1.37	3.375	1.44
Threads Per Inch				7	10	7	10	6	10	6	10	
Tension Compared to Pipe Body			%	100	80.67	100	83.12	100	84.24	100	95.85	
J-55		Connection Yield Strength Tension	1000 lbs	27,165	21,910	36,768	30,560	43,973	37,040	51,403	49,300	
		Setting Depth SF-1	ft.	15,792	12,738	15,780	13,116	15,932	13,420	15,816	15,169	
		Collapse Setting Depth [†]	ft.	17,780	12,729	15,093	13,118	13,780	13,414	13,670	13,670	
		Recommended Makeup Torque	ft-lbs	210 min	300 min	250 min	380 min	275 min	440 min	275 min	560 min	
310 max				400 max	375 max	500 max	425 max	580 max	480 max	740 max		
L-80/N-80		Connection Yield Strength Tension	1000 lbs	39,500	31,870	53,500	44,460	63,960	53,880	74,768	71,700	
		Setting Depth SF-1	ft.	22,965	18,529	22,961	19,082	23,174	19,522	23,006	22,062	
		Collapse Setting Depth [†]	ft.	25,866	18,514	21,970	19,082	20,053	19,151	19,875	19,875	
		Recommended Makeup Torque	ft-lbs	300 min	400 min	350 min	500 min	400 min	590 min	400 min	750 min	
450 max				540 max	550 max	690 max	600 max	790 max	700 max	1010 max		

* API FORMULAS BUL 5C2 5C3

† PRESSURE GRADIENT 1/2#/FT AND DESIGN FACTOR 1.125

(API-IJ COLLAPSE SETTING DEPTH LIMITED BY CONNECTION TENSILE YIELD STRENGTH)

†† INTERNAL YIELD (BURST) BASED ON 87.5% MIN YIELD STRENGTH

API connection strength (tension) is per API BUL 5C2 21st Ed. 1999, except on 2-1/16" P110 which is not shown in BUL 5C2 - (we used 95.85%)

Z2-600 Performance Data vs API-IJ

T-95, P-110 / C-110



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			1"		1-1/4"		1-1/2"		2-1/16"			
			Z2-600	API-IJ	Z2-600	API-IJ	Z2-600	API-IJ	Z2-600	API-IJ		
PIPE DATA	T-95	OD	in.	1.315	1.315	1.660	1.660	1.900	1.900	2.063	2.063	
		Nom. Wt.	lbs/ft	1.72	1.72	2.33	2.33	2.76	2.76	3.25	3.25	
		Wall	in.	0.133	0.133	0.140	0.140	0.145	0.145	0.156	0.156	
		ID Nom.	in.	1.049	1.049	1.380	1.380	1.610	1.610	1.751	1.751	
		Drift	in.	0.955	0.955	1.286	1.286	1.516	1.516	1.657	1.657	
		Area	in ²	0.4939	0.4939	0.6685	0.6685	0.7995	0.7995	0.9346	0.9346	
	T-95	Pipe Body Yield Strength (Tension)	1000 lbs	46,921	46,921	63,508	63,508	75,953	75,953	88,787	88,787	
		Min Collapse Pressure	lbs/in ²	17,270	17,270	14,670	14,670	13,190	13,190	12,980	12,980	
		Min Internal Yield (burst) ^{††}	lbs/in ²	16,810	16,810	14,020	14,020	12,690	12,690	12,570	12,570	
	P-110 \ C-110	Pipe Body Yield Strength (Tension)	1000 lbs	54,329	54,329	73,535	73,535	87,945	87,945	102,806	102,806	
		Min Collapse Pressure	lbs/in ²	20,000	20,000	16,990	16,990	14,840	14,840	14,600	14,600	
		Min Internal Yield (burst) ^{††}	lbs/in ²	19,470	19,470	16,230	16,230	14,690	14,690	14,560	14,560	
	CONNECTION DATA	T-95	OD	in.	1.550	1.550	1.880	1.880	2.110	2.110	2.325	2.325
			ID	in.	1.049	0.970	1.380	1.301	1.610	1.531	1.751	1.672
Makeup Loss			in.	2.375	1.12	2.440	1.26	3.250	1.37	3.375	1.44	
Threads Per Inch				7	10	7	10	6	10	6	10	
Tension Compared to Pipe Body			%	100	80.67	100	83.12	100	84.24	100	95.85	
T-95		Connection Yield Strength Tension	1000 lbs	46,921	37,850	63,508	52,790	75,953	63,980	88,787	85,100	
		Setting Depth SF-1	ft.	27,280	22,006	27,257	22,657	27,517	23,181	27,319	26,185	
		Collapse Setting Depth [†]	ft.	30,700	21,987	26,080	22,659	23,450	23,169	23,080	23,080	
		Recommended Makeup Torque	ft-lbs	350 min 530 max	475 min 645 max	420 min 650 max	590 min 820 max	475 min 725 max	700 min 940 max	475 min 830 max	900 min 1200 max	
P-110 \ C-110		Connection Yield Strength Tension	1000 lbs	54,329	43,827	73,535	61,122	87,945	74,085	102,806	98,540	
		Setting Depth SF-1	ft.	31,587	25,481	31,560	26,233	31,864	26,842	31,633	30,320	
		Collapse Setting Depth [†]	ft.	35,556	25,457	30,204	26,237	26,380	26,380	25,960	25,960	
		Recommended Makeup Torque	ft-lbs	410 min 600 max	550 min 740 max	480 min 700 max	685 min 950 max	550 min 800 max	810 min 1090 max	590 min 960 max	1031 min 1390 max	

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