

ER™

Torque table

# ER™ Torque Table | 7" TO 9 5/8"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE
				Minimum	Optimum	Maximum	Minimum	Maximum	
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb
<b>7</b>	23.00	0.317	55	6480	7000	7530	1050	5250	10690
			80	7220	7800	8390	1170	5850	13930
			90	7630	8250	8870	1240	6190	15230
			95	7630	8250	8870	1240	6190	15870
			110	7630	8250	8870	1240	6190	17820
	26.00	0.362	125	8420	9100	9780	1370	6830	19760
			55	7400	8000	8600	1200	6000	12610
			80	8420	9100	9780	1370	6830	16570
			90	8930	9650	10370	1450	7240	18150
			95	8930	9650	10370	1450	7240	18940
	29.00	0.408	110	8930	9650	10370	1450	7240	21310
			125	9340	10100	10860	1520	7580	23690
			55	8140	8800	9460	1320	6600	14680
			80	9250	10000	10750	1500	7500	19430
			90	9810	10600	11400	1590	7950	21330
	32.00	0.453	95	9810	10600	11400	1590	7950	22280
			110	9810	10600	11400	1590	7950	25130
			125	10550	11400	12260	1710	8550	27980
			55	8830	9550	10270	1430	7160	15970
			80	9990	10800	11610	1620	8100	21180
35.00	0.498	90	10680	11550	12420	1730	8660	23270	
		95	10680	11550	12420	1730	8660	24310	
		110	10680	11550	12420	1730	8660	27440	
		125	11290	12200	13120	1830	9150	30560	
		55	9620	10400	11180	1560	7800	17210	
38.00	0.540	80	10450	11300	12150	1700	8480	22880	
		90	11290	12200	13120	1830	9150	25150	
		95	11290	12200	13120	1830	9150	26280	
		110	11290	12200	13120	1830	9150	29680	
		125	11840	12800	13760	1920	9600	33090	
41.00	0.590	55	9990	10800	11610	1620	8100	18210	
		80	10920	11800	12690	1770	8850	24240	
		90	11750	12700	13650	1910	9530	26650	
		95	11750	12700	13650	1910	9530	27860	
		110	11750	12700	13650	1910	9530	31480	
44.00	0.640	125	12210	13200	14190	1980	9900	35100	
		55	10730	11600	12470	1740	8700	19410	
		80	11660	12600	13550	1890	9450	25880	
		90	12210	13200	14190	1980	9900	28480	
		95	12210	13200	14190	1980	9900	29770	
46.00	0.670	110	12210	13200	14190	1980	9900	33660	
		125	12950	14000	15050	2100	10500	37550	
		55	11290	12200	13120	1830	9150	20570	
		80	12210	13200	14190	1980	9900	27490	
		90	12770	13800	14840	2070	10350	30260	
<b>8 5/8</b>	24.00	0.264	95	12770	13800	14840	2070	10350	31640
			110	12770	13800	14840	2070	10350	35800
			125	13510	14600	15700	2190	10950	39950
			55	11660	12600	13550	1890	9450	20680
			80	12580	13600	14620	2040	10200	27600
28.00	0.304	90	13140	14200	15270	2130	10650	30370	
		95	13140	14200	15270	2130	10650	31750	
		110	13140	14200	15270	2130	10650	35900	
		125	13880	15000	16130	2250	11250	40060	
		55	7640	8260	8880	1240	6200	13250	
			80	8190	8850	9510	1330	6640	18040

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE		
				Minimum	Optimum	Maximum	Minimum	Maximum			
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb		
<b>8 5/8</b>	28.00	0.304	90	8510	9200	9890	1380	6900	19960		
			95	8510	9200	9890	1380	6900	20910		
			110	8830	9550	10270	1430	7160	23780		
			125	9160	9900	10640	1490	7430	26660		
			32.00	0.352	55	8750	9460	10170	1420	7100	14760
					80	9420	10180	10940	1530	7640	20070
	90	9810			10610	11410	1590	7960	22190		
	95	9810			10610	11410	1590	7960	23260		
	110	10210			11040	11870	1660	8280	26440		
	125	10620			11480	12340	1720	8610	29630		
	36.00	0.400	55	10060	10870	11690	1630	8150	19130		
			80	10980	11870	12760	1780	8900	26290		
			90	11540	12470	13410	1870	9350	29160		
			95	11540	12470	13410	1870	9350	30590		
			110	12090	13070	14050	1960	9800	34880		
			125	12650	13670	14700	2050	10250	39180		
	40.00	0.450	55	11120	12020	12920	1800	9020	20870		
			80	12210	13200	14190	1980	9900	28680		
			90	12870	13910	14950	2090	10430	31810		
			95	12870	13910	14950	2090	10430	33370		
			110	13520	14620	15720	2190	10970	38060		
			125	14180	15330	16480	2300	11500	42740		
	44.00	0.500	55	12150	13130	14110	1970	9850	22720		
			80	13420	14510	15600	2180	10880	31250		
90			14200	15350	16500	2300	11510	34670			
95			14200	15350	16500	2300	11510	36370			
110			14970	16180	17390	2430	12140	41490			
125			15740	17010	18290	2550	12760	46610			
49.00	0.557	55	13270	14340	15420	2150	10760	24710			
		80	14760	15960	17160	2390	11970	34040			
		90	15670	16940	18210	2540	12710	37760			
		95	15670	16940	18210	2540	12710	39630			
		110	16570	17910	19250	2690	13430	45220			
		125	17470	18890	20310	2830	14170	50810			
52.00	0.595	55	14050	15190	16330	2280	11390	26740			
		80	15740	17010	18290	2550	12760	36920			
		90	16750	18110	19470	2720	13580	40980			
		95	16750	18110	19470	2720	13580	43020			
		110	17760	19200	20640	2880	14400	49120			
		125	18780	20300	21820	3050	15230	55220			
54.00	0.625	55	14510	15690	16870	2350	11770	26870			
		80	16280	17600	18920	2640	13200	37040			
		90	17340	18740	20150	2810	14060	41110			
		95	17340	18740	20150	2810	14060	43140			
		110	18390	19880	21370	2980	14910	49240			
		125	19450	21030	22610	3150	15770	55340			
58.70	0.687	55	15730	17000	18280	2550	12750	29860			
		80	17800	19240	20680	2890	14430	41290			
		90	19050	20590	22130	3090	15440	45860			
		95	19050	20590	22130	3090	15440	48140			
		110	20290	21930	23570	3290	16450	55000			
		125	21530	23270	25020	3490	17450	61850			
<b>9 5/8</b>	36.00	0.352	55	8510	9200	9890	1380	6900	20400		
			80	9440	10200	10970	1530	7650	27280		
			90	10080	10900	11720	1640	8180	30040		
			95	10080	10900	11720	1640	8180	31410		
			110	10080	10900	11720	1640	8180	35540		
			125	12030	13000	13980	1950	9750	39670		
	40.00	0.395	55	9530	10300	11070	1550	7730	25200		
			80	10640	11500	12360	1730	8630	34050		
			90	11290	12200	13120	1830	9150	37590		
			95	11290	12200	13120	1830	9150	39360		

9 5/8" TO 14"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE		
				Minimum	Optimum	Maximum	Minimum	Maximum			
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb		
<b>9 5/8</b>	40.00	0.395	110	11290	12200	13120	1830	9150	44660		
			125	13510	14600	15700	2190	10950	49970		
			43.50	0.435	55	10820	11700	12580	1760	8780	28250
					80	12030	13000	13980	1950	9750	38300
					90	12770	13800	14840	2070	10350	42320
	47.00	0.472	95	12770	13800	14840	2070	10350	44320		
			110	12770	13800	14840	2070	10350	50350		
			125	14430	15600	16770	2340	11700	56380		
			53.50	0.545	55	11290	12200	13120	1830	9150	30210
					80	12490	13500	14510	2030	10130	40990
	90	13320			14400	15480	2160	10800	45300		
	58.40	0.595	95	13320	14400	15480	2160	10800	47450		
			110	13320	14400	15480	2160	10800	53920		
			125	14800	16000	17200	2400	12000	60390		
			59.40	0.609	55	12260	13250	14240	1990	9940	33820
80					13410	14500	15590	2180	10880	45950	
90	14250	15400			16560	2310	11550	50810			
61.10	0.625	95	14250	15400	16560	2310	11550	53230			
		110	14250	15400	16560	2310	11550	60520			
		125	15170	16400	17630	2460	12300	67800			
		64.90	0.672	55	12860	13900	14940	2090	10430	36360	
				80	14060	15200	16340	2280	11400	49480	
90	14800			16000	17200	2400	12000	54730			
66.80	0.720	95	14800	16000	17200	2400	12000	57360			
		110	14800	16000	17200	2400	12000	65230			
		125	15730	17000	18280	2550	12750	73110			
		70.70	0.770	55	12860	13900	14940	2090	10430	36460	
				80	14060	15200	16340	2280	11400	49580	
90	14800			16000	17200	2400	12000	54830			
72.70	0.820	95	14800	16000	17200	2400	12000	57460			
		110	14800	16000	17200	2400	12000	65330			
		125	15730	17000	18280	2550	12750	73210			
		76.70	0.870	55	13230	14300	15370	2150	10730	37350	
				80	14430	15600	16770	2340	11700	50830	
90	15170			16400	17630	2460	12300	56230			
78.70	0.920	95	15170	16400	17630	2460	12300	58920			
		110	15170	16400	17630	2460	12300	67010			
		125	16100	17400	18710	2610	13050	75100			
		82.70	0.970	55	13690	14800	15910	2220	11100	39410	
				80	14890	16100	17310	2420	12080	53690	
90	15730			17000	18280	2550	12750	59400			
84.70	1.020	95	15730	17000	18280	2550	12750	62260			
		110	15730	17000	18280	2550	12750	70830			
		125	16650	18000	19350	2700	13500	79400			
		88.70	1.070	55	13320	14400	15480	2160	10800	32630	
				80	13970	15100	16230	2270	11330	44000	
90	14800			16000	17200	2400	12000	48550			
90.70	1.120	95	14800	16000	17200	2400	12000	50830			
		110	14800	16000	17200	2400	12000	57650			
		125	14800	16000	17200	2400	12000	64480			
		94.70	1.170	55	10180	11000	11830	1650	8250	32960	
				80	11560	12500	13440	1880	9380	45170	
90	12490			13500	14510	2030	10130	50060			
96.70	1.220	95	12490	13500	14510	2030	10130	52510			
		110	12490	13500	14510	2030	10130	59840			
		125	14150	15300	16450	2300	11480	67170			
		100.70	1.270	55	10920	11800	12690	1770	8850	33480	
				80	12260	13250	14240	1990	9940	45700	
90	13140			14200	15270	2130	10650	50580			
102.70	1.320	95	13140	14200	15270	2130	10650	53030			
		110	13140	14200	15270	2130	10650	60360			
		125	14710	15900	17090	2390	11930	67690			

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE	
				Minimum	Optimum	Maximum	Minimum	Maximum		
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	
<b>10 3/4</b>	55.50	0.495	55	11660	12600	13550	1890	9450	33900	
			80	12950	14000	15050	2100	10500	46120	
			90	13880	15000	16130	2250	11250	51010	
			95	13880	15000	16130	2250	11250	53450	
			110	13880	15000	16130	2250	11250	60780	
	60.70	0.545	125	14800	16000	17200	2400	12000	68110	
			55	12490	13500	14510	2030	10130	48190	
			80	13690	14800	15910	2220	11100	66710	
			90	14710	15900	17090	2390	11930	74120	
			95	14710	15900	17090	2390	11930	77830	
	65.70	0.595	110	14710	15900	17090	2390	11930	88940	
			125	14800	16000	17200	2400	12000	100050	
			55	13230	14300	15370	2150	10730	48580	
			80	14430	15600	16770	2340	11700	67100	
			90	14800	16000	17200	2400	12000	74510	
<b>13 3/8</b>	54.50	0.380	95	14800	16000	17200	2400	12000	78220	
			110	14800	16000	17200	2400	12000	89330	
			125	14800	16000	17200	2400	12000	100440	
			55	9760	10550	11340	1580	7910	43330	
			80	10450	11300	12150	1700	8480	60080	
	61.00	0.430	90	11100	12000	12900	1800	9000	66780	
			95	11100	12000	12900	1800	9000	70130	
			110	11100	12000	12900	1800	9000	80170	
			125	14800	16000	17200	2400	12000	90220	
			55	12030	13000	13980	1950	9750	54000	
	68.00	0.480	80	12490	13500	14510	2030	10130	75320	
			90	13690	14800	15910	2220	11100	83850	
			95	13690	14800	15910	2220	11100	88120	
			110	13690	14800	15910	2220	11100	100910	
			125	14800	16000	17200	2400	12000	113700	
72.00	0.514	55	12770	13800	14840	2070	10350	54550		
		80	13880	15000	16130	2250	11250	75870		
		90	14710	15900	17090	2390	11930	84400		
		95	14710	15900	17090	2390	11930	88660		
		110	14710	15900	17090	2390	11930	101450		
<b>13 1/2</b>	80.40	0.576	125	14800	16000	17200	2400	12000	114240	
			55	13410	14500	15590	2180	10880	54890	
			80	14800	16000	17200	2400	12000	76210	
			90	14800	16000	17200	2400	12000	84740	
			95	14800	16000	17200	2400	12000	89000	
	88.20	0.625	110	14800	16000	17200	2400	12000	101790	
			125	14800	16000	17200	2400	12000	114590	
			55	13510	14600	15700	2190	10950	69560	
			80	14800	16000	17200	2400	12000	97270	
			90	14800	16000	17200	2400	12000	108350	
	<b>13 5/8</b>	105.00	0.760	95	14800	16000	17200	2400	12000	113900
				110	14800	16000	17200	2400	12000	130520
				125	14800	16000	17200	2400	12000	147150
				55	14990	16200	17420	2430	12150	125610
				80	14990	16200	17420	2430	12150	132090
82.50		0.562	90	14990	16200	17420	2430	12150	151510	
			110	14990	16200	17420	2430	12150	170940	
			55	14520	15700	16880	2360	11780	101440	
			80	15360	16600	17850	2490	12450	143020	
			90	17480	18900	20320	2840	14180	159640	
<b>14</b>	82.50	0.562	95	17480	18900	20320	2840	14180	167960	
			110	17480	18900	20320	2840	14180	192900	
			125	17480	18900	20320	2840	14180	217840	
			55	13410	14500	15590	2180	10880	61380	
			80	14800	16000	17200	2400	12000	83600	

# 14" TO 20"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE				
				Minimum	Optimum	Maximum	Minimum	Maximum					
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb				
<b>14</b>	82.50	0.562	90	17950	19400	20860	2910	14550	92490				
			95	17950	19400	20860	2910	14550	96940				
			110	17950	19400	20860	2910	14550	110270				
			94.80	0.656	55	14060	15200	16340	2280	11400	75990		
					80	15450	16700	17950	2510	12530	104300		
	90	18780			20300	21820	3050	15230	115630				
	99.30	0.688	95	18780	20300	21820	3050	15230	121290				
			110	18780	20300	21820	3050	15230	138280				
			110.00	0.772	55	14060	15200	16340	2280	11400	76370		
					80	15450	16700	17950	2510	12530	104680		
					90	18780	20300	21820	3050	15230	116010		
	114.00	0.800	95	18780	20300	21820	3050	15230	121670				
			110	18780	20300	21820	3050	15230	138660				
			111.00	0.779	55	14800	16000	17200	2400	12000	85760		
					80	16190	17500	18810	2630	13130	117950		
					90	19610	21200	22790	3180	15900	130830		
			110.00	0.772	95	19610	21200	22790	3180	15900	137260		
					110	19610	21200	22790	3180	15900	156580		
					114.00	0.800	55	14800	16000	17200	2400	12000	85830
							80	16190	17500	18810	2630	13130	118020
90							19610	21200	22790	3180	15900	130890	
109.00	0.715	95	19610	21200	22790	3180	15900	137330					
		110	19610	21200	22790	3180	15900	156650					
		114.00	0.800	55	15170	16400	17630	2460	12300	90260			
				80	16650	18000	19350	2700	13500	124370			
				90	20170	21800	23440	3270	16350	138010			
109.00	0.715	95	20170	21800	23440	3270	16350	144830					
		110	20170	21800	23440	3270	16350	165300					
		15	0.715	80	14990	16200	17420	2430	12150	158370			
				90	14990	16200	17420	2430	12150	176130			
				95	14990	16200	17420	2430	12150	185010			
16	0.375	110	14990	16200	17420	2430	12150	211650					
		125	14990	16200	17420	2430	12150	238300					
		65.00	0.375	55	11560	12500	13440	1880	9380	52470			
				80	12770	13800	14840	2070	10350	72040			
				90	14430	15600	16770	2340	11700	79870			
75.00	0.438	95	14430	15600	16770	2340	11700	83780					
		110	14430	15600	16770	2340	11700	95530					
		84.00	0.495	55	11560	12500	13440	1880	9380	73840			
				80	12770	13800	14840	2070	10350	102550			
				90	14430	15600	16770	2340	11700	114040			
94.50	0.562	95	14430	15600	16770	2340	11700	119790					
		110	14430	15600	16770	2340	11700	137020					
		84.00	0.495	55	12950	14000	15050	2100	10500	73570			
				80	14250	15400	16560	2310	11550	101410			
				90	15360	16600	17850	2490	12450	112550			
109.00	0.656	95	15360	16600	17850	2490	12450	118120					
		110	15360	16600	17850	2490	12450	134820					
		94.50	0.562	55	13600	14700	15800	2210	11030	74650			
				80	14890	16100	17310	2420	12080	102490			
				90	19150	20700	22250	3110	15530	113630			
118.00	0.715	95	19150	20700	22250	3110	15530	119200					
		110	19150	20700	22250	3110	15530	135900					
		109.00	0.656	55	14710	15900	17090	2390	11930	93260			
				80	16000	17300	18600	2600	12980	128960			
				90	20260	21900	23540	3290	16430	143240			
118.00	0.715	95	20260	21900	23540	3290	16430	150380					
		110	20260	21900	23540	3290	16430	171810					
		118.00	0.715	55	18960	20500	22040	3080	15380	102920			
				80	21280	23000	24730	3450	17250	142060			
				90	22850	24700	26550	3710	18530	157720			
118.00	0.715	95	22850	24700	26550	3710	18530	165550					

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE
				Minimum	Optimum	Maximum	Minimum	Maximum	
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb
<b>16</b>	118.00	0.715	110	22850	24700	26550	3710	18530	189040
			55	18960	20500	22040	3080	15380	109320
		0.781	80	21280	23000	24730	3450	17250	151010
			90	22850	24700	26550	3710	18530	167680
			95	22850	24700	26550	3710	18530	176020
		110	22850	24700	26550	3710	18530	201040	
<b>18 5/8</b>	87.50	0.435	55	11930	12900	13870	1940	9680	87240
			80	12580	13600	14620	2040	10200	121070
			90	14430	15600	16770	2340	11700	134600
			95	14430	15600	16770	2340	11700	141370
			110	14430	15600	16770	2340	11700	161670
	94.50	0.468	55	12770	13800	14840	2070	10350	88020
			80	13510	14600	15700	2190	10950	121860
			90	15360	16600	17850	2490	12450	135390
			95	15360	16600	17850	2490	12450	142160
			110	15360	16600	17850	2490	12450	162460
	96.50	0.485	55	13140	14200	15270	2130	10650	88410
			80	13970	15100	16230	2270	11330	122240
			90	15820	17100	18380	2570	12830	135780
			95	15820	17100	18380	2570	12830	142540
			110	15820	17100	18380	2570	12830	162840
	99.00	0.500	55	13510	14600	15700	2190	10950	96770
			80	14430	15600	16770	2340	11700	133900
			90	17480	18900	20320	2840	14180	148750
			95	17480	18900	20320	2840	14180	156180
			110	17480	18900	20320	2840	14180	178450
	114.00	0.579	125	19520	21100	22680	3170	15830	200730
			55	14150	15300	16450	2300	11480	114430
			80	15080	16300	17520	2450	12230	158820
			90	18130	19600	21070	2940	14700	176570
			95	18130	19600	21070	2940	14700	185450
	115.00	0.594	110	18130	19600	21070	2940	14700	212080
			125	20170	21800	23440	3270	16350	238710
55			14150	15300	16450	2300	11480	114730	
80			15080	16300	17520	2450	12230	159120	
90			18130	19600	21070	2940	14700	176870	
126.00	0.636	95	18130	19600	21070	2940	14700	185750	
		110	18130	19600	21070	2940	14700	212380	
		125	20170	21800	23440	3270	16350	239010	
		55	14710	15900	17090	2390	11930	119500	
		80	15630	16900	18170	2540	12680	165690	
136.00	0.693	90	18690	20200	21720	3030	15150	184170	
		95	18690	20200	21720	3030	15150	193400	
		110	18690	20200	21720	3030	15150	221120	
		125	20720	22400	24080	3360	16800	248830	
		55	14710	15900	17090	2390	11930	120520	
139.00	0.720	80	15630	16900	18170	2540	12680	166710	
		90	18690	20200	21720	3030	15150	185180	
		95	18690	20200	21720	3030	15150	194420	
		110	18690	20200	21720	3030	15150	222130	
		125	20720	22400	24080	3360	16800	249840	
<b>20</b>	94.00	0.438	55	12030	13000	13980	1950	9750	98410
			80	12770	13800	14840	2070	10350	137600
			90	14620	15800	16990	2370	11850	153270
			95	14620	15800	16990	2370	11850	161110
			110	14620	15800	16990	2370	11850	184620
	106.50	0.500	55	16190	17500	18810	2630	13130	113450

20" TO 24 1/2"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE	
				Minimum	Optimum	Maximum	Minimum	Maximum		
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	
20	106.50	0.500	80	17300	18700	20100	2810	14030	158600	
			90	20910	22600	24300	3390	16950	176660	
			95	20910	22600	24300	3390	16950	185690	
			110	20910	22600	24300	3390	16950	212790	
	118.50	0.563	55	16740	18100	19460	2720	13580	125710	
			80	17760	19200	20640	2880	14400	175920	
			90	21370	23100	24830	3470	17330	196000	
			95	21370	23100	24830	3470	17330	206040	
	131.50	0.625	110	21370	23100	24830	3470	17330	236160	
			55	17300	18700	20100	2810	14030	137780	
			80	18130	19600	21070	2940	14700	193020	
			90	21740	23500	25260	3530	17630	215110	
	133.00	0.635	95	21740	23500	25260	3530	17630	226160	
			110	21740	23500	25260	3530	17630	259290	
			55	17300	18700	20100	2810	14030	137930	
			80	18130	19600	21070	2940	14700	193170	
	147.00	0.709	90	21740	23500	25260	3530	17630	215260	
			95	21740	23500	25260	3530	17630	226300	
			110	21740	23500	25260	3530	17630	259440	
			55	18220	19700	21180	2960	14780	152740	
156.00	0.750	80	18870	20400	21930	3060	15300	214230		
		90	22480	24300	26120	3650	18230	238820		
		95	22480	24300	26120	3650	18230	251120		
		110	22480	24300	26120	3650	18230	288010		
22	146.50	0.625	55	19240	20800	22360	3120	15600	160570	
			80	19980	21600	23220	3240	16200	225380	
			90	23770	25700	27630	3860	19280	251300	
			95	23770	25700	27630	3860	19280	264270	
			110	23770	25700	27630	3860	19280	303150	
22	180.00	0.781	125	23770	25700	27630	3860	19280	342040	
			55	25440	16000	29560	2400	12000	141750	
			80	25440	17100	29564	2570	12830	197320	
			90	25440	19400	29565	2910	14550	219550	
	226.00	1.000	95	25440	19400	29566	2910	14550	230670	
			110	25440	19400	29568	2910	14550	264010	
			125	25440	19400	29569	2910	14550	297350	
			55	25440	18100	29572	2720	13580	205580	
	24	125.50	0.500	80	25440	19300	29576	2900	14480	288960
				90	25440	21900	29577	3290	16430	322310
				95	25440	21900	29578	3290	16430	338990
				110	25440	21900	29580	3290	16430	389010
24	159.20	0.625	125	25440	21900	29581	3290	16430	439040	
			55	25440	18700	29584	2810	14030	290020	
			80	25440	19900	29588	2990	14930	410500	
			90	25440	22500	29589	3380	16880	458680	
	162.00	0.635	95	25440	22500	29590	3380	16880	482780	
			110	25440	22500	29592	3380	16880	555060	
			125	25440	22500	29593	3380	16880	627350	
			55	13880	15000	16130	2250	11250	161100	
24	125.50	0.500	80	14430	15600	16770	2340	11700	227450	
			90	17480	18900	20320	2840	14180	253990	
			95	17480	18900	20320	2840	14180	267260	
			110	17480	18900	20320	2840	14180	307070	
24	125.50	0.500	55	14800	16000	17200	2400	12000	199540	
			80	15820	17100	18380	2570	12830	281950	
			90	17950	19400	20860	2910	14550	314910	
			95	17950	19400	20860	2910	14550	331390	
24	125.50	0.500	110	17950	19400	20860	2910	14550	380840	
			55	14800	16000	17200	2400	12000	199710	
			80	15820	17100	18380	2570	12830	282120	
			90	17950	19400	20860	2910	14550	315080	
24	125.50	0.500	95	17950	19400	20860	2910	14550	331560	

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	SMYS OF STEEL GRADE	MAKE UP TORQUE			SHOULDER TORQUE		YIELD TORQUE
				Minimum	Optimum	Maximum	Minimum	Maximum	
in	lb/ft	in	ksi	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb	ft.lb
<b>24</b>	162.00	0.635	110	17950	19400	20860	2910	14550	381010
			55	15730	17000	18280	2550	12750	214000
			80	16840	18200	19570	2730	13650	302520
			90	19060	20600	22150	3090	15450	337930
			95	19060	20600	22150	3090	15450	355640
	189.00	0.750	110	19060	20600	22150	3090	15450	408750
			55	16740	18100	19460	2720	13580	232320
			80	17850	19300	20750	2900	14480	328760
			90	20260	21900	23540	3290	16430	367330
			95	20260	21900	23540	3290	16430	386620
<b>24 1/2</b>	133.00	0.500	55	13880	15000	16130	2250	11250	160960
			80	14430	15600	16770	2340	11700	226930
			90	17480	18900	20320	2840	14180	253320
			95	17480	18900	20320	2840	14180	266510
			110	17480	18900	20320	2840	14180	306090
	140.00	0.531	55	14800	16000	17200	2400	12000	176820
			80	15820	17100	18380	2570	12830	249360
			90	17950	19400	20860	2910	14550	278370
			95	17950	19400	20860	2910	14550	292880
			110	17950	19400	20860	2910	14550	336400
162.00	0.625	55	15730	17000	18280	2550	12750	204120	
		80	16740	18100	19460	2720	13580	288200	
		90	19060	20600	22150	3090	15450	321830	
		95	19060	20600	22150	3090	15450	338650	
		110	19060	20600	22150	3090	15450	389090	
165.00	0.635	55	16470	17800	19140	2670	13350	204310	
		80	17580	19000	20430	2850	14250	288380	
		90	19980	21600	23220	3240	16200	322010	
		95	19980	21600	23220	3240	16200	338830	
		110	19980	21600	23220	3240	16200	389270	
182.00	0.709	55	17580	19000	20430	2850	14250	205580	
		80	18780	20300	21820	3050	15230	289660	
		90	21370	23100	24830	3470	17330	323290	
		95	21370	23100	24830	3470	17330	340110	
		110	21370	23100	24830	3470	17330	390550	

- SMYS: Specified Minimum Yield Strength.
- An appropriate safety factor should be applied to these yield torque values.
- For other unlisted combinations of dimension and SMYS please contact [premiumconnections@tenaris.com](mailto:premiumconnections@tenaris.com)



For contact information, please visit  
our website: [www.tenaris.com](http://www.tenaris.com)