



SCOPE OF APPLICATION

This specification gives the standard make-up torque values to be applied on NEW VAM connections.

Values to be applied on NEW VAM standard connections or with special clearance SC and also with Matched strength MS and with the Resilient Seal RS option.

NEW VAM, VAM, VAM ATAC, VAM AF and VAM AG threads are all compatible. The following chart shows which optimum torque is applicable according to the previous connections.

Pin	Box	NEW VAM NEW VAM M.S (1)	VAM VAM ATAC	VAM AG VAM AF	NEW VAM SC VAM SC (2)
NEW VAM NEW VAM M.S (1)		NEW VAM Optimum Torque	NEW VAM Optimum Torque	NEW VAM Minimum Torque	NEW VAM Optimum Torque
VAM VAM ATAC		NEW VAM Optimum Torque	NEW VAM Optimum Torque	NEW VAM Minimum Torque	NEW VAM Optimum Torque
VAM AG VAM AF		NEW VAM Optimum Torque	NEW VAM Optimum Torque	NEW VAM Minimum Torque	NEW VAM Optimum Torque
NEW VAM SC VAM SC (2)		NEW VAM Optimum Torque	NEW VAM Optimum Torque	NEW VAM Minimum Torque	NEW VAM Optimum Torque

(1) M.S matched Strength – (2) S.C Special Coupling

**NB : NEW VAM and “old” VAM are interchangeable up to 9 5/8" size only.
To get details, contact VAM Services at mr.help@vamservices.com.**

DOPE QUANTITY

MINIMUM DOPE QUANTITY FOR MAKE - UP

Nominal O.D.	Dope volume	
	<i>(in.)</i>	<i>(cm³)</i>
2 3/8	9	0.5
2 7/8	10	0.6
3 1/2	13	0.8
4	14	0.9
4 1/2	16	1.0
5	24	1.5
5 1/2	26	1.6
6 5/8	32	1.9
7	42	2.6
7 5/8	46	2.8
8 5/8	62	3.8
9 5/8	69	4.2
9 7/8	71	4.3
10 3/4	77	4.7
11 3/4	99	6.0
11 7/8	100	6.1
13 3/8	112	6.8
13 5/8	114	6.9

The weight of dope to apply on a connection depends of the specific gravity of the used dope. For example, the make – up dope quantity in 7" NEW VAM will be:

*42*1.67=70g with a dope having a gravity of 1.67 g/cm³ and 2.6*1.00=2.6 oz with a dope having a gravity of 1.00 oz/in³.*



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- NESS	55 ksi			75-80-85 ksi		
			min.	opti	max.	min.	opti	max.
in.	lb/ft	in.	ft.lb.					
mm		mm	N.m.					
2 3/8" 60.33	4.60	0.190 4.83	1050 1410	1160 1570	1270 1730	1440 1940	1590 2160	1740 2380
	5.10	0.218 5.54	1050 1410	1160 1570	1270 1730	1440 1940	1590 2160	1740 2380
	5.80	0.254 6.45	1110 1500	1230 1670	1350 1840	1500 2030	1660 2260	1820 2490
	6.40	0.217 5.51	1570 2110	1740 2350	1910 2590	2160 2920	2390 3240	2620 3560
2 7/8" 73.03	7.80	0.276 7.01	1700 2290	1880 2550	2060 2810	2280 3090	2530 3430	2780 3770
	8.60	0.308 7.82	1890 2560	2100 2840	2310 3120	2540 3440	2820 3820	3100 4200
	9.35	0.340 8.64	2020 2740	2240 3040	2460 3340	2740 3710	3040 4120	3340 4530
	9.80	0.362 9.19	2160 2920	2390 3240	2620 3560	2930 3970	3250 4410	3570 4850
3 1/2" 88.90	7.70	0.216 5.49	2080 2830	2310 3140	2540 3450	2800 3800	3110 4220	3420 4640
	9.20	0.254 6.45	2160 2920	2390 3240	2620 3560	2930 3970	3250 4410	3570 4850
	10.20	0.289 7.34	2420 3270	2680 3630	2940 3990	3330 4500	3690 5000	4050 5500
	12.70	0.375 9.53	2870 3880	3180 4310	3490 4740	3850 5200	4270 5800	4690 6400
	13.70	0.413 10.49	3330 4500	3690 5000	4050 5500	4500 6100	4990 6800	5480 7500
	14.70	0.449 11.40	3850 5200	4270 5800	4690 6400	5280 7100	5860 7900	6440 8700
	15.50	0.476 12.09	3910 5300	4340 5900	4770 6500	5340 7200	5930 8000	6520 8800
	16.50	0.500 12.70	4050 5600	4500 6200	5000 6800	5600 7600	6200 8400	6800 9200
4" 101.60	9.50	0.226 5.74	2610 3530	2890 3920	3170 4310	3590 4900	3980 5400	4370 5900
	10.90	0.262 6.65	2740 3710	3040 4120	3340 4530	3710 5000	4120 5600	4530 6200
	13.20	0.330 8.38	3130 4240	3470 4710	3810 5180	4300 5800	4770 6500	5240 7200
	14.80	0.380 9.65	3910 5300	4340 5900	4770 6500	5400 7300	6000 8100	6600 8900
4 1/2" 114.30	16.50	0.430 10.92	4040 5500	4480 6100	4920 6700	5480 7400	6080 8200	6680 9000
	10.50	0.224 5.69	3060 4150	3400 4610	3740 5070	4040 5500	4480 6100	4920 6700
	11.60	0.250 6.35	3130 4240	3470 4710	3810 5180	4170 5700	4630 6300	5090 6900
	12.60	0.271 6.88	3190 4330	3540 4810	3890 5290	4300 5800	4770 6500	5240 7200
	13.50	0.290 7.37	3330 4500	3690 5000	4050 5500	4430 6000	4920 6700	5410 7400
	15.10	0.337 8.56	3780 5100	4200 5700	4620 6300	5220 7000	5790 7800	6360 8600
	17.00	0.380 9.65	4560 6200	5060 6900	5560 7600	6250 8500	6940 9400	7630 10300
	18.90	0.430 10.92	4690 6400	5210 7100	5730 7800	6390 8600	7090 9600	7790 10600
21.50	0.500 12.70	5540 7500	6150 8300	6760 9100	7830 10600	8700 11800	9570 13000	
23.70	0.560 14.22	5670 7600	6290 8500	6910 9400	8150 11100	9050 12300	9950 13500	



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	55 ksi			75-80-85 ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
5" 127.00	13.00	0.253 6.43	3780 5100	4200 5700	4620 6300	4110 5600	4560 6200	5010 6800
	15.00	0.296 7.52	4230 5800	4700 6400	5170 7000	4630 6300	5140 7000	5650 7700
	18.00	0.362 9.19	5140 6900	5710 7700	6280 8500	5540 7500	6150 8300	6760 9100
	20.30	0.408 10.36	6190 8400	6870 9300	7550 10200	6840 9300	7590 10300	8340 11300
	20.80	0.422 10.72	6320 8500	7020 9500	7720 10500	6840 9300	7590 10300	8340 11300
	21.40	0.437 11.10	6450 8700	7160 9700	7870 10700	7170 9700	7960 10800	8750 11900
	23.20	0.478 12.14	6840 9300	7590 10300	8340 11300	7470 10200	8300 11300	9130 12400
	24.10	0.500 12.7	6840 9300	7590 10300	8340 11300	7470 10200	8300 11300	9130 12400
	5 1/2" 139.70	14.00	0.244 6.20	3590 4900	3980 5400	4370 5900	4300 5800	4770 6500
15.50		0.275 6.99	4230 5800	4700 6400	5170 7000	4630 6300	5140 7000	5650 7700
17.00		0.304 7.72	4560 6200	5060 6900	5560 7600	4950 6700	5500 7500	6050 8300
20.00		0.361 9.17	5340 7200	5930 8000	6520 8800	5860 7900	6510 8800	7160 9700
23.00		0.415 10.54	6390 8600	7090 9600	7790 10600	7170 9700	7960 10800	8750 11900
26.00		0.476 12.09	6840 9300	7590 10300	8340 11300	7470 10200	8300 11300	9130 12400
6 5/8" 168.28		20.00	0.288 7.32	5080 6800	5640 7600	6200 8400	5740 7700	6370 8600
	23.20	0.330 8.38	5600 7600	6220 8400	6840 9200	6250 8500	6940 9400	7630 10300
	24.00	0.352 8.94	6250 8500	6940 9400	7630 10300	7170 9700	7960 10800	8750 11900
	28.00	0.417 10.59	7830 10600	8700 11800	9570 13000	8780 11900	9750 13200	10720 14500
	32.00	0.475 12.07	8150 11100	9050 12300	9950 13500	9500 12800	10500 14200	11500 15600
	35.00	0.525 13.34	8780 11900	9750 13200	10720 14500	9850 13200	10850 14700	11850 16200
	7" 177.80	23.00	0.317 8.05	5600 7600	6220 8400	6840 9200	6320 8500	7020 9500
26.00		0.362 9.19	6510 8800	7230 9800	7950 10800	7470 10200	8300 11300	9130 12400
29.00		0.408 10.36	7470 10200	8300 11300	9130 12400	8460 11400	9400 12700	10340 14000
32.00		0.453 11.51	8150 11100	9050 12300	9950 13500	9150 12300	10150 13700	11150 15100
35.00		0.498 12.65	8460 11400	9400 12700	10340 14000	9500 12800	10500 14200	11500 15600
38.00		0.540 13.72	8780 11900	9750 13200	10720 14500	10100 13700	11200 15200	12300 16700
41.00		0.590 14.99	9500 12800	10500 14200	11500 15600	10450 14100	11550 15700	12650 17300
44.00		0.640 16.26	11100 15000	12300 16700	13500 18400	12450 16700	13750 18600	15050 20500
46.00		0.670 17.02	11700 15900	13000 17700	14300 19500	12700 17200	14100 19100	15500 21000



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	55 ksi			75-80-85 ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
7 5/8" 193.68	26.40	0.328 8.33	6450 8700	7160 9700	7870 10700	7170 9700	7960 10800	8750 11900
	29.70	0.375 9.53	7470 10200	8300 11300	9130 12400	8460 11400	9400 12700	10340 14000
	33.70	0.430 10.92	9150 12300	10150 13700	11150 15100	10450 14100	11550 15700	12650 17300
	35.80	0.465 11.81	9500 12800	10500 14200	11500 15600	10850 14600	11950 16200	13050 17800
	39.00	0.500 12.70	9850 13200	10850 14700	11850 16200	11100 15000	12300 16700	13500 18400
	42.80	0.562 14.27	10850 14600	11950 16200	13050 17800	12100 16300	13400 18100	14700 19900
	45.30	0.595 15.11	11100 15000	12300 16700	13500 18400	12450 16700	13750 18600	15050 20500
	47.10	0.625 15.88	11450 15500	12650 17200	13850 18900	12700 17200	14100 19100	15500 21000
	51.20	0.687 17.45	11700 15900	13000 17700	14300 19500	13050 17600	14450 19600	15850 21600
	7 3/4" 196.85	46.10	0.595 15.11	11450 15500	12650 17200	13850 18900	12700 17200	14100 19100
8 5/8" 219.08	28.00	0.304 7.72	6840 9300	7590 10300	8340 11300	7830 10600	8700 11800	9570 13000
	32.00	0.352 8.94	7470 10200	8300 11300	9130 12400	8460 11400	9400 12700	10340 14000
	36.00	0.400 10.16	9150 12300	10150 13700	11150 15100	10450 14100	11550 15700	12650 17300
	40.00	0.450 11.43	9850 13200	10850 14700	11850 16200	11100 15000	12300 16700	13500 18400
	44.00	0.500 12.70	10450 14100	11550 15700	12650 17300	11700 15900	13000 17700	14300 19500
	49.00	0.557 14.15	11100 15000	12300 16700	13500 18400	12450 16700	13750 18600	15050 20500
	52.00	0.595 15.11	11700 15900	13000 17700	14300 19500	13050 17600	14450 19600	15850 21600
	9 5/8" 244.48	36.00	0.352 8.94	7830 10600	8700 11800	9570 13000	9150 12300	10150 13700
40.00	0.395 10.03	9500 12800	10500 14200	11500 15600	11100 15000	12300 16700	13500 18400	
43.50	0.435 11.05	10850 14600	11950 16200	13050 17800	12700 17200	14100 19100	15500 21000	
47.00	0.472 11.99	11100 15000	12300 16700	13500 18400	13050 17600	14450 19600	15850 21600	
53.50	0.545 13.84	12100 16300	13400 18100	14700 19900	14400 19400	15900 21600	17400 23800	
58.40	0.595 15.11	12700 17200	14100 19100	15500 21000	14400 19400	15900 21600	17400 23800	
59.40	0.609 15.47	13050 17600	14450 19600	15850 21600	14400 19400	15900 21600	17400 23800	
61.10	0.625 15.88	13050 17600	14450 19600	15850 21600	14400 19400	15900 21600	17400 23800	
9 7/8" 250.83	62.80	0.625 15.88	13050 17600	14450 19600	15850 21600	14400 19400	15900 21600	17400 23800



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	55 ksi			75-80-85 ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
10 3/4" 273.05	40.50	0.350 8.89	8460 11400	9400 12700	10340 14000	10100 13700	11200 15200	12300 16700
	45.50	0.400 10.16	10450 14100	11550 15700	12650 17300	12700 17200	14100 19100	15500 21000
	51.00	0.450 11.43	11100 15000	12300 16700	13500 18400	13050 17600	14450 19600	15850 21600
	55.50	0.495 12.57	11700 15900	13000 17700	14300 19500	13700 18500	15200 20600	16700 22700
	60.70	0.545 13.84	12450 16700	13750 18600	15050 20500	14400 19400	15900 21600	17400 23800
	65.70	0.595 15.11	13050 17600	14450 19600	15850 21600	14400 19400	15900 21600	17400 23800
	71.10	0.650 16.51	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	73.20	0.672 17.07	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	11 3/4" 298.45	47.00	0.375 9.53	9500 12800	10500 14200	11500 15600	11450 15500	12650 17200
54.00		0.435 11.05	13050 17600	14450 19600	15850 21600	14400 19400	15900 21600	17400 23800
60.00		0.489 12.42	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800
65.00		0.534 13.56	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
11 7/8" 301.63	71.80	0.582 14.78	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	13 3/8" 339.73	54.50	0.380 9.65	10450 14100	11550 15700	12650 17300	13050 17600	14450 19600
61.00		0.430 10.92	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800
68.00		0.480 12.19	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
72.00		0.514 13.06	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
77.00		0.550 13.97	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
80.70		0.580 14.73	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
85.00		0.608 15.44	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
86.00		0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
13 5/8" 346.08		88.20	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	90-95-100 ksi			105-110-115 Ksi			
			min.	opti	max.	min.	opti	max.	
in. mm	lb/ft	in. mm	ft.lb. N.m.						
2 3/8" 60.33	4.60	0.190	1630	1810	1990	1830	2030	2230	
		4.83	2200	2450	2700	2470	2750	3030	
	5.10	0.218	1700	1880	2060	1890	2100	2310	
		5.54	2290	2550	2810	2560	2840	3120	
	5.80	0.254	1760	1950	2140	1960	2170	2380	
		6.45	2380	2650	2920	2650	2940	3230	
	2 7/8" 73.03	6.40	0.217	2540	2820	3100	2870	3180	3490
			5.51	3440	3820	4200	3880	4310	4740
7.80		0.276	2610	2890	3170	3000	3330	3660	
		7.01	3530	3920	4310	4060	4510	4960	
	8.60	0.308	2930	3250	3570	3390	3760	4130	
		7.82	3970	4410	4850	4600	5100	5600	
	9.35	0.340	3190	3540	3890	3650	4050	4450	
		8.64	4330	4810	5290	4900	5500	6100	
	9.80	0.362	3390	3760	4130	3850	4270	4690	
		9.19	4600	5100	5600	5200	5800	6400	
	3 1/2" 88.90	7.70	0.216	3260	3620	3980	3650	4050	4450
			5.49	4400	4900	5400	4900	5500	6100
9.20		0.254	3390	3760	4130	3850	4270	4690	
		6.45	4600	5100	5600	5200	5800	6400	
	10.20	0.289	3850	4270	4690	4370	4850	5330	
		7.34	5200	5800	6400	5900	6600	7300	
	12.70	0.375	4430	4920	5410	5020	5570	6120	
		9.53	6000	6700	7400	6800	7600	8400	
	13.70	0.413	5220	5790	6360	5930	6580	7230	
		10.49	7000	7800	8600	8000	8900	9800	
	14.70	0.449	5860	6510	7160	6840	7590	8340	
		11.40	7900	8800	9700	9300	10300	11300	
	15.50	0.476	5860	6510	7160	6840	7590	8340	
		12.09	7900	8800	9700	9300	10300	11300	
	4" 101.60	9.50	0.226	4170	4630	5090	4690	5210	5730
			5.74	5700	6300	6900	6400	7100	7800
10.90		0.262	4300	4770	5240	4880	5420	5960	
		6.65	5800	6500	7200	6700	7400	8100	
	13.20	0.330	4950	5500	6050	5600	6220	6840	
		8.38	6700	7500	8300	7600	8400	9200	
	14.80	0.380	6250	6940	7630	7170	7960	8750	
		9.65	8500	9400	10300	9700	10800	11900	
	16.50	0.430	6390	7090	7790	7170	7960	8750	
		10.92	8600	9600	10600	9700	10800	11900	
	4 1/2" 114.30	10.50	0.224	4690	5210	5730	5280	5860	6440
			5.69	6400	7100	7800	7100	7900	8700
11.60		0.250	4820	5350	5880	5400	6000	6600	
		6.35	6600	7300	8000	7300	8100	8900	
	12.60	0.271	4950	5500	6050	5540	6150	6760	
		6.88	6700	7500	8300	7500	8300	9100	
	13.50	0.290	5080	5640	6200	5740	6370	7000	
		7.37	6800	7600	8400	7700	8600	9500	
	15.10	0.337	5990	6650	7310	6840	7590	8340	
		8.56	8100	9000	9900	9300	10300	11300	
	17.00	0.380	7170	7960	8750	8150	9050	9950	
		9.65	9700	10800	11900	11100	12300	13500	
	18.90	0.430	7470	8300	9130	8460	9400	10340	
		10.92	10200	11300	12400	11400	12700	14000	
	21.50	0.500	9150	10150	11150	10850	11950	13050	
		12.70	12300	13700	15100	14600	16200	17800	
	23.70	0.560	9500	10500	11500	10850	11950	13050	
		14.22	12800	14200	15600	14600	16200	17800	



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- NESS	90-95-100 ksi			105-110-115 Ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
5" 127.00	13.00	0.253 6.43	4370 5900	4850 6600	5330 7300	4560 6200	5060 6900	5560 7600
	15.00	0.296 7.52	4820 6600	5350 7300	5880 8000	5020 6800	5570 7600	6120 8400
	18.00	0.362 9.19	5800 7800	6440 8700	7080 9600	6060 8200	6730 9100	7400 10000
	20.30	0.408 10.36	7170 9700	7960 10800	8750 11900	7470 10200	8300 11300	9130 12400
	20.80	0.422 10.72	7170 9700	7960 10800	8750 11900	7830 10600	8700 11800	9570 13000
	21.40	0.437 11.10	7470 10200	8300 11300	9130 12400	7830 10600	8700 11800	9570 13000
	23.20	0.478 12.14	7830 10600	8700 11800	9570 13000	8150 11100	9050 12300	9950 13500
	24.10	0.500 12.7	7830 10600	8700 11800	9570 13000	8460 11400	9400 12700	10340 14000
	5 1/2" 139.70	14.00	0.244 6.20	4560 6200	5060 6900	5560 7600	4820 6600	5350 7300
15.50		0.275 6.99	4880 6700	5420 7400	5960 8100	5140 6900	5710 7700	6280 8500
17.00		0.304 7.72	5220 7000	5790 7800	6360 8600	5480 7400	6080 8200	6680 9000
20.00		0.361 9.17	6120 8300	6800 9200	7480 10100	6450 8700	7160 9700	7870 10700
23.00		0.415 10.54	7470 10200	8300 11300	9130 12400	7830 10600	8700 11800	9570 13000
26.00		0.476 12.09	8150 11100	9050 12300	9950 13500	8460 11400	9400 12700	10340 14000
6 5/8" 168.28	20.00	0.288 7.32	6060 8200	6730 9100	7400 10000	6450 8700	7160 9700	7870 10700
	23.20	0.330 8.38	6510 8800	7230 9800	7950 10800	7170 9700	7960 10800	8750 11900
	24.00	0.352 8.94	7470 10200	8300 11300	9130 12400	7830 10600	8700 11800	9570 13000
	28.00	0.417 10.59	9500 12800	10500 14200	11500 15600	10100 13700	11200 15200	12300 16700
	32.00	0.475 12.07	10100 13700	11200 15200	12300 16700	10450 14100	11550 15700	12650 17300
	35.00	0.525 13.34	10450 14100	11550 15700	12650 17300	11100 15000	12300 16700	13500 18400
7" 177.80	23.00	0.317 8.05	6840 9300	7590 10300	8340 11300	7170 9700	7960 10800	8750 11900
	26.00	0.362 9.19	7830 10600	8700 11800	9570 13000	8460 11400	9400 12700	10340 14000
	29.00	0.408 10.36	9150 12300	10150 13700	11150 15100	9850 13200	10850 14700	11850 16200
	32.00	0.453 11.51	9850 13200	10850 14700	11850 16200	10450 14100	11550 15700	12650 17300
	35.00	0.498 12.65	10100 13700	11200 15200	12300 16700	10850 14600	11950 16200	13050 17800
	38.00	0.540 13.72	10450 14100	11550 15700	12650 17300	11100 15000	12300 16700	13500 18400
	41.00	0.590 14.99	11100 15000	12300 16700	13500 18400	11700 15900	13000 17700	14300 19500
	44.00	0.640 16.26	13050 17600	14450 19600	15850 21600	13700 18500	15200 20600	16700 22700
	46.00	0.670 17.02	13050 17600	14450 19600	15850 21600	13700 18500	15200 20600	16700 22700



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	90-95-100 ksi			105-110-115 Ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
7 5/8" 193.68	26.40	0.328 8.33	7830 10600	8700 11800	9570 13000	8150 11100	9050 12300	9950 13500
	29.70	0.375 9.53	9150 12300	10150 13700	11150 15100	9850 13200	10850 14700	11850 16200
	33.70	0.430 10.92	11100 15000	12300 16700	13500 18400	12100 16300	13400 18100	14700 19900
	35.80	0.465 11.81	11700 15900	13000 17700	14300 19500	12450 16700	13750 18600	15050 20500
	39.00	0.500 12.70	12100 16300	13400 18100	14700 19900	12700 17200	14100 19100	15500 21000
	42.80	0.562 14.27	12700 17200	14100 19100	15500 21000	13700 18500	15200 20600	16700 22700
	45.30	0.595 15.11	13050 17600	14450 19600	15850 21600	13700 18500	15200 20600	16700 22700
	47.10	0.625 15.88	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800
	51.20	0.687 17.45	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	7 3/4" 196.85	46.10	0.595 15.11	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600
8 5/8" 219.08	28.00	0.304 7.72	8460 11400	9400 12700	10340 14000	9150 12300	10150 13700	11150 15100
	32.00	0.352 8.94	9150 12300	10150 13700	11150 15100	9850 13200	10850 14700	11850 16200
	36.00	0.400 10.16	11100 15000	12300 16700	13500 18400	12100 16300	13400 18100	14700 19900
	40.00	0.450 11.43	12100 16300	13400 18100	14700 19900	12700 17200	14100 19100	15500 21000
	44.00	0.500 12.70	12700 17200	14100 19100	15500 21000	13700 18500	15200 20600	16700 22700
	49.00	0.557 14.15	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800
	52.00	0.595 15.11	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800
	9 5/8" 244.48	36.00	0.352 8.94	10100 13700	11200 15200	12300 16700	10850 14600	11950 16200
40.00	0.395 10.03	12100 16300	13400 18100	14700 19900	13050 17600	14450 19600	15850 21600	
43.50	0.435 11.05	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800	
47.00	0.472 11.99	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800	
53.50	0.545 13.84	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800	
58.40	0.595 15.11	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800	
59.40	0.609 15.47	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800	
61.10	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800	
9 7/8" 250.83	62.80	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	90-95-100 ksi			105-110-115 Ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
10 3/4" 273.05	40.50	0.350 8.89	11100 15000	12300 16700	13500 18400	12100 16300	13400 18100	14700 19900
	45.50	0.400 10.16	13700 18500	15200 20600	16700 22700	14400 19400	15900 21600	17400 23800
	51.00	0.450 11.43	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	55.50	0.495 12.57	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	60.70	0.545 13.84	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	65.70	0.595 15.11	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	71.10	0.650 16.51	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	73.20	0.672 17.07	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	11 3/4" 298.45	47.00	0.375 9.53	12700 17200	14100 19100	15500 21000	13700 18500	15200 20600
54.00		0.435 11.05	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
60.00		0.489 12.42	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
65.00		0.534 13.56	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
11 7/8" 301.63	71.80	0.582 14.78	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
13 3/8" 339.73	54.50	0.380 9.65	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	61.00	0.430 10.92	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	68.00	0.480 12.19	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	72.00	0.514 13.06	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	77.00	0.550 13.97	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	80.70	0.580 14.73	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	85.00	0.608 15.44	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	86.00	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	13 5/8" 346.08	88.20	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- NESS	120-125-130 ksi			135-140 Ksi		
			min.	opti	max.	min.	opti	max.
in.	lb/ft	in.	ft.lb.					
mm		mm	N.m.					
2 3/8" 60.33	4.60	0.190	2080	2310	2540	2280	2530	2780
		4.83	2830	3140	3450	3090	3430	3770
	5.10	0.218	2080	2310	2540	2280	2530	2780
		5.54	2830	3140	3450	3090	3430	3770
	5.80	0.254	2160	2390	2620	2340	2600	2860
		6.45	2920	3240	3560	3180	3530	3880
2 7/8" 73.03	6.40	0.217	3190	3540	3890	3520	3910	4300
		5.51	4330	4810	5290	4800	5300	5800
	7.80	0.276	3330	3690	4050	3650	4050	4450
		7.01	4500	5000	5500	4900	5500	6100
	8.60	0.308	3780	4200	4620	4110	4560	5010
		7.82	5100	5700	6300	5600	6200	6800
	9.35	0.340	4040	4480	4920	4430	4920	5410
		8.64	5500	6100	6700	6000	6700	7400
	9.80	0.362	4300	4770	5240	4690	5210	5730
		9.19	5800	6500	7200	6400	7100	7800
3 1/2" 88.90	7.70	0.216	4110	4560	5010	4430	4920	5410
		5.49	5600	6200	6800	6000	6700	7400
	9.20	0.254	4300	4770	5240	4630	5140	5650
		6.45	5800	6500	7200	6300	7000	7700
	10.20	0.289	4880	5420	5960	5340	5930	6520
		7.34	6700	7400	8100	7200	8000	8800
	12.70	0.375	5670	6290	6910	6120	6800	7480
		9.53	7600	8500	9400	8300	9200	10100
	13.70	0.413	6840	7590	8340	7470	8300	9130
		10.49	9300	10300	11300	10200	11300	12400
	14.70	0.449	7470	8300	9130	8150	9050	9950
		11.40	10200	11300	12400	11100	12300	13500
	15.50	0.476	7470	8300	9130	8150	9050	9950
		12.09	10200	11300	12400	11100	12300	13500
4" 101.60	9.50	0.226	5220	5790	6360	5670	6290	6910
		5.74	7000	7800	8600	7600	8500	9400
	10.90	0.262	5400	6000	6600	5860	6510	7160
		6.65	7300	8100	8900	7900	8800	9700
	13.20	0.330	6320	7020	7720	6840	7590	8340
		8.38	8500	9500	10500	9300	10300	11300
	14.80	0.380	8150	9050	9950	8780	9750	10720
	9.65	11100	12300	13500	11900	13200	14500	
	16.50	0.430	8150	9050	9950	9150	10150	11150
		10.92	11100	12300	13500	12300	13700	15100
4 1/2" 114.30	10.50	0.224	5930	6580	7230	6390	7090	7790
		5.69	8000	8900	9800	8600	9600	10600
	11.60	0.250	6060	6730	7400	6510	7230	7950
		6.35	8200	9100	10000	8800	9800	10800
	12.60	0.271	6190	6870	7550	6510	7230	7950
		6.88	8400	9300	10200	8800	9800	10800
	13.50	0.290	6320	7020	7720	7170	7960	8750
		7.37	8500	9500	10500	9700	10800	11900
	15.10	0.337	7470	8300	9130	8150	9050	9950
		8.56	10200	11300	12400	11100	12300	13500
	17.00	0.380	9150	10150	11150	10100	11200	12300
		9.65	12300	13700	15100	13700	15200	16700
	18.90	0.430	9500	10500	11500	10450	11550	12650
		10.92	12800	14200	15600	14100	15700	17300
21.50	0.500	11700	13000	14300	12450	13750	15050	
	12.70	15900	17700	19500	16700	18600	20500	
23.70	0.560	12100	13400	14700	12450	13750	15050	
		14.22	16300	18100	19900	16700	18600	20500



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	120-125-130 ksi			135-140 Ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
5" 127.00	13.00	0.253	4760	5280	5800	4950	5500	6050
		6.43	6500	7200	7900	6700	7500	8300
	15.00	0.296	5280	5860	6440	5480	6080	6680
		7.52	7100	7900	8700	7400	8200	9000
	18.00	0.362	6390	7090	7790	6510	7230	7950
		9.19	8600	9600	10600	8800	9800	10800
	20.30	0.408	7830	8700	9570	8150	9050	9950
		10.36	10600	11800	13000	11100	12300	13500
	20.80	0.422	8150	9050	9950	8460	9400	10340
		10.72	11100	12300	13500	11400	12700	14000
21.40	0.437	8150	9050	9950	8460	9400	10340	
	11.10	11100	12300	13500	11400	12700	14000	
23.20	0.478	8460	9400	10340	8780	9750	10720	
	12.14	11400	12700	14000	11900	13200	14500	
24.10	0.500	8780	9750	10720	9150	10150	11150	
	12.7	11900	13200	14500	12300	13700	15100	
5 1/2" 139.70	14.00	0.244	5080	5640	6200	5340	5930	6520
		6.20	6800	7600	8400	7200	8000	8800
	15.50	0.275	5400	6000	6600	5670	6290	6910
		6.99	7300	8100	8900	7600	8500	9400
	17.00	0.304	5740	6370	7000	5990	6650	7310
		7.72	7700	8600	9500	8100	9000	9900
	20.00	0.361	6840	7590	8340	7170	7960	8750
		9.17	9300	10300	11300	9700	10800	11900
23.00	0.415	8460	9400	10340	8780	9750	10720	
	10.54	11400	12700	14000	11900	13200	14500	
26.00	0.476	8780	9750	10720	9500	10500	11500	
	12.09	11900	13200	14500	12800	14200	15600	
6 5/8" 168.28	20.00	0.288	6840	7590	8340	7170	7960	8750
		7.32	9300	10300	11300	9700	10800	11900
	23.20	0.330	7470	8300	9130	7830	8700	9570
		8.38	10200	11300	12400	10600	11800	13000
	24.00	0.352	8460	9400	10340	8780	9750	10720
		8.94	11400	12700	14000	11900	13200	14500
	28.00	0.417	10450	11550	12650	11100	12300	13500
		10.59	14100	15700	17300	15000	16700	18400
32.00	0.475	11100	12300	13500	11700	13000	14300	
	12.07	15000	16700	18400	15900	17700	19500	
35.00	0.525	11700	13000	14300	12450	13750	15050	
	13.34	15900	17700	19500	16700	18600	20500	
7" 177.80	23.00	0.317	7470	8300	9130	8150	9050	9950
		8.05	10200	11300	12400	11100	12300	13500
	26.00	0.362	9150	10150	11150	9500	10500	11500
		9.19	12300	13700	15100	12800	14200	15600
	29.00	0.408	10450	11550	12650	11100	12300	13500
		10.36	14100	15700	17300	15000	16700	18400
	32.00	0.453	11100	12300	13500	11700	13000	14300
		11.51	15000	16700	18400	15900	17700	19500
	35.00	0.498	11450	12650	13850	12100	13400	14700
		12.65	15500	17200	18900	16300	18100	19900
	38.00	0.540	11700	13000	14300	12450	13750	15050
		13.72	15900	17700	19500	16700	18600	20500
	41.00	0.590	12450	13750	15050	13050	14450	15850
		14.99	16700	18600	20500	17600	19600	21600
44.00	0.640	14400	15900	17400	14400	15900	17400	
	16.26	19400	21600	23800	19400	21600	23800	
46.00	0.670	14400	15900	17400	14400	15900	17400	
	17.02	19400	21600	23800	19400	21600	23800	



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- NESS	120-125-130 ksi			135-140 Ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
7 5/8" 193.68	26.40	0.328	8780	9750	10720	9500	10500	11500
		8.33	11900	13200	14500	12800	14200	15600
	29.70	0.375	10450	11550	12650	11100	12300	13500
		9.53	14100	15700	17300	15000	16700	18400
	33.70	0.430	12700	14100	15500	13700	15200	16700
		10.92	17200	19100	21000	18500	20600	22700
	35.80	0.465	13050	14450	15850	13700	15200	16700
		11.81	17600	19600	21600	18500	20600	22700
	39.00	0.500	13700	15200	16700	14400	15900	17400
		12.70	18500	20600	22700	19400	21600	23800
42.80	0.562	14400	15900	17400	14400	15900	17400	
		14.27	19400	21600	23800	19400	21600	23800
	45.30	0.595	14400	15900	17400	14400	15900	17400
		15.11	19400	21600	23800	19400	21600	23800
47.10	0.625	14400	15900	17400	14400	15900	17400	
		15.88	19400	21600	23800	19400	21600	23800
	51.20	0.687	14400	15900	17400	14400	15900	17400
		17.45	19400	21600	23800	19400	21600	23800
7 3/4" 196.85	46.10	0.595	14400	15900	17400	14400	15900	17400
		15.11	19400	21600	23800	19400	21600	23800
8 5/8" 219.08	28.00	0.304	9850	10850	11850	10450	11550	12650
		7.72	13200	14700	16200	14100	15700	17300
	32.00	0.352	10450	11550	12650	11100	12300	13500
		8.94	14100	15700	17300	15000	16700	18400
	36.00	0.400	13050	14450	15850	13700	15200	16700
		10.16	17600	19600	21600	18500	20600	22700
	40.00	0.450	13700	15200	16700	14400	15900	17400
		11.43	18500	20600	22700	19400	21600	23800
	44.00	0.500	14400	15900	17400	14400	15900	17400
		12.70	19400	21600	23800	19400	21600	23800
49.00	0.557	14400	15900	17400	14400	15900	17400	
		14.15	19400	21600	23800	19400	21600	23800
	52.00	0.595	14400	15900	17400	14400	15900	17400
		15.11	19400	21600	23800	19400	21600	23800
9 5/8" 244.48	36.00	0.352	11700	13000	14300	12450	13750	15050
		8.94	15900	17700	19500	16700	18600	20500
	40.00	0.395	14400	15900	17400	14400	15900	17400
		10.03	19400	21600	23800	19400	21600	23800
	43.50	0.435	14400	15900	17400	14400	15900	17400
		11.05	19400	21600	23800	19400	21600	23800
	47.00	0.472	14400	15900	17400	14400	15900	17400
		11.99	19400	21600	23800	19400	21600	23800
	53.50	0.545	14400	15900	17400	14400	15900	17400
		13.84	19400	21600	23800	19400	21600	23800
58.40	0.595	14400	15900	17400	14400	15900	17400	
		15.11	19400	21600	23800	19400	21600	23800
	59.40	0.609	14400	15900	17400	14400	15900	17400
		15.47	19400	21600	23800	19400	21600	23800
61.10	0.625	14400	15900	17400	14400	15900	17400	
		15.88	19400	21600	23800	19400	21600	23800
9 7/8" 250.83	62.80	0.625	14400	15900	17400	14400	15900	17400
		15.88	19400	21600	23800	19400	21600	23800



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	120-125-130 ksi			135-140 Ksi		
			min.	opti	max.	min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.					
10 3/4" 273.05	40.50	0.350 8.89	13050 17600	14450 19600	15850 21600	13700 18500	15200 20600	16700 22700
	45.50	0.400 10.16	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	51.00	0.450 11.43	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	55.50	0.495 12.57	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	60.70	0.545 13.84	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	65.70	0.595 15.11	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	71.10	0.650 16.51	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	73.20	0.672 17.07	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	11 3/4" 298.45	47.00	0.375 9.53	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600
54.00		0.435 11.05	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
60.00		0.489 12.42	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
65.00		0.534 13.56	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
11 7/8" 301.63	71.80	0.582 14.78	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
13 3/8" 339.73	54.50	0.380 9.65	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	61.00	0.430 10.92	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	68.00	0.480 12.19	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	72.00	0.514 13.06	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	77.00	0.550 13.97	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	80.70	0.580 14.73	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	85.00	0.608 15.44	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	86.00	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600	17400 23800
	13 5/8" 346.08	88.20	0.625 15.88	14400 19400	15900 21600	17400 23800	14400 19400	15900 21600

NEW VAM Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	145-150-155 ksi		
			min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.		
2 3/8" 60.33	4.60	0.190	2420	2680	2940
		4.83	3270	3630	3990
	5.10	0.218	2480	2750	3020
		5.54	3360	3730	4100
	5.80	0.254	2540	2820	3100
		6.45	3440	3820	4200
2 7/8" 73.03	6.40	0.217	3780	4200	4620
		5.51	5100	5700	6300
	7.80	0.276	3910	4340	4770
		7.01	5300	5900	6500
	8.60	0.308	4430	4920	5410
		7.82	6000	6700	7400
	9.35	0.340	4760	5280	5800
		8.64	6500	7200	7900
	9.80	0.362	5080	5640	6200
		9.19	6800	7600	8400
3 1/2" 88.90	7.70	0.216	4760	5280	5800
		5.49	6500	7200	7900
	9.20	0.254	4950	5500	6050
		6.45	6700	7500	8300
	10.20	0.289	5740	6370	7000
		7.34	7700	8600	9500
	12.70	0.375	6510	7230	7950
		9.53	8800	9800	10800
	13.70	0.413	7830	8700	9570
		10.49	10600	11800	13000
	14.70	0.449	8780	9750	10720
		11.40	11900	13200	14500
15.50	0.476	8780	9750	10720	
	12.09	11900	13200	14500	
4" 101.60	9.50	0.226	6120	6800	7480
		5.74	8300	9200	10100
	10.90	0.262	6320	7020	7720
		6.65	8500	9500	10500
	13.20	0.330	7470	8300	9130
		8.38	10200	11300	12400
	14.80	0.380	9500	10500	11500
		9.65	12800	14200	15600
16.50	0.430	9850	10850	11850	
	10.92	13200	14700	16200	
4 1/2" 114.30	10.50	0.224	6840	7590	8340
		5.69	9300	10300	11300
	11.60	0.250	7170	7960	8750
		6.35	9700	10800	11900
	12.60	0.271	7170	7960	8750
		6.88	9700	10800	11900
	13.50	0.290	7470	8300	9130
		7.37	10200	11300	12400
	15.10	0.337	8780	9750	10720
		8.56	11900	13200	14500
	17.00	0.380	11100	12300	13500
		9.65	15000	16700	18400
	18.90	0.430	11100	12300	13500
		10.92	15000	16700	18400
21.50	0.500	13050	14450	15850	
	12.70	17600	19600	21600	
23.70	0.560	13050	14450	15850	
	14.22	17600	19600	21600	

NEW VAM Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	145-150-155 ksi		
			min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.		
5" 127.00	13.00	0.253	5140	5710	6280
		6.43	6900	7700	8500
	15.00	0.296	5670	6290	6910
		7.52	7600	8500	9400
	18.00	0.362	6840	7590	8340
		9.19	9300	10300	11300
	20.30	0.408	8460	9400	10340
		10.36	11400	12700	14000
	20.80	0.422	8780	9750	10720
		10.72	11900	13200	14500
21.40	0.437	8780	9750	10720	
	11.10	11900	13200	14500	
23.20	0.478	9150	10150	11150	
		12.14	12300	13700	15100
	24.10	0.500	9500	10500	11500
		12.7	12800	14200	15600
5 1/2" 139.70	14.00	0.244	5540	6150	6760
		6.20	7500	8300	9100
	15.50	0.275	5860	6510	7160
		6.99	7900	8800	9700
	17.00	0.304	6190	6870	7550
		7.72	8400	9300	10200
	20.00	0.361	7170	7960	8750
		9.17	9700	10800	11900
23.00	0.415	9150	10150	11150	
	10.54	12300	13700	15100	
26.00	0.476	9850	10850	11850	
	12.09	13200	14700	16200	
6 5/8" 168.28	20.00	0.288	7470	8300	9130
		7.32	10200	11300	12400
	23.20	0.330	8150	9050	9950
		8.38	11100	12300	13500
	24.00	0.352	9150	10150	11150
		8.94	12300	13700	15100
	28.00	0.417	11700	13000	14300
		10.59	15900	17700	19500
32.00	0.475	12450	13750	15050	
	12.07	16700	18600	20500	
35.00	0.525	12700	14100	15500	
	13.34	17200	19100	21000	
7" 177.80	23.00	0.317	8460	9400	10340
		8.05	11400	12700	14000
	26.00	0.362	9850	10850	11850
		9.19	13200	14700	16200
	29.00	0.408	11450	12650	13850
		10.36	15500	17200	18900
	32.00	0.453	12100	13400	14700
		11.51	16300	18100	19900
	35.00	0.498	12450	13750	15050
		12.65	16700	18600	20500
	38.00	0.540	13050	14450	15850
		13.72	17600	19600	21600
	41.00	0.590	13700	15200	16700
		14.99	18500	20600	22700
44.00	0.640	14400	15900	17400	
	16.26	19400	21600	23800	
46.00	0.670	14400	15900	17400	
	17.02	19400	21600	23800	



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- -NESS	145-150-155 ksi		
			min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.		
7 5/8" 193.68	26.40	0.328 8.33	9850 13200	10850 14700	11850 16200
	29.70	0.375 9.53	11450 15500	12650 17200	13850 18900
	33.70	0.430 10.92	14400 19400	15900 21600	17400 23800
	35.80	0.465 11.81	14400 19400	15900 21600	17400 23800
	39.00	0.500 12.70	14400 19400	15900 21600	17400 23800
	42.80	0.562 14.27	14400 19400	15900 21600	17400 23800
	45.30	0.595 15.11	14400 19400	15900 21600	17400 23800
	47.10	0.625 15.88	14400 19400	15900 21600	17400 23800
	51.20	0.687 17.45	14400 19400	15900 21600	17400 23800
	7 3/4" 196.85	46.10	0.595 15.11	14400 19400	15900 21600
8 5/8" 219.08	28.00	0.304 7.72	10850 14600	11950 16200	13050 17800
	32.00	0.352 8.94	11700 15900	13000 17700	14300 19500
	36.00	0.400 10.16	14400 19400	15900 21600	17400 23800
	40.00	0.450 11.43	14400 19400	15900 21600	17400 23800
	44.00	0.500 12.70	14400 19400	15900 21600	17400 23800
	49.00	0.557 14.15	14400 19400	15900 21600	17400 23800
	52.00	0.595 15.11	14400 19400	15900 21600	17400 23800
	9 5/8" 244.48	36.00	0.352 8.94	13050 17600	14450 19600
40.00	0.395 10.03	14400 19400	15900 21600	17400 23800	
43.50	0.435 11.05	14400 19400	15900 21600	17400 23800	
47.00	0.472 11.99	14400 19400	15900 21600	17400 23800	
53.50	0.545 13.84	14400 19400	15900 21600	17400 23800	
58.40	0.595 15.11	14400 19400	15900 21600	17400 23800	
59.40	0.609 15.47	14400 19400	15900 21600	17400 23800	
61.10	0.625 15.88	14400 19400	15900 21600	17400 23800	
9 7/8" 250.83	62.80	0.625 15.88	14400 19400	15900 21600	17400 23800



Make-up torques

SIZE (OD)	NOMI- NAL WEIGHT	WALL THICK- NESS	145-150-155 ksi		
			min.	opti	max.
in. mm	lb/ft	in. mm	ft.lb. N.m.		
10 3/4" 273.05	40.50	0.350 8.89	14400 19400	15900 21600	17400 23800
	45.50	0.400 10.16	14400 19400	15900 21600	17400 23800
	51.00	0.450 11.43	14400 19400	15900 21600	17400 23800
	55.50	0.495 12.57	14400 19400	15900 21600	17400 23800
	60.70	0.545 13.84	14400 19400	15900 21600	17400 23800
	65.70	0.595 15.11	14400 19400	15900 21600	17400 23800
	71.10	0.650 16.51	14400 19400	15900 21600	17400 23800
	73.20	0.672 17.07	14400 19400	15900 21600	17400 23800
	11 3/4" 298.45	47.00	0.375 9.53	14400 19400	15900 21600
54.00		0.435 11.05	14400 19400	15900 21600	17400 23800
60.00		0.489 12.42	14400 19400	15900 21600	17400 23800
65.00		0.534 13.56	14400 19400	15900 21600	17400 23800
11 7/8" 301.63	71.80	0.582 14.78	14400 19400	15900 21600	17400 23800
13 3/8" 339.73	54.50	0.380 9.65	14400 19400	15900 21600	17400 23800
	61.00	0.430 10.92	14400 19400	15900 21600	17400 23800
	68.00	0.480 12.19	14400 19400	15900 21600	17400 23800
	72.00	0.514 13.06	14400 19400	15900 21600	17400 23800
	77.00	0.550 13.97	14400 19400	15900 21600	17400 23800
	80.70	0.580 14.73	14400 19400	15900 21600	17400 23800
	85.00	0.608 15.44	14400 19400	15900 21600	17400 23800
	86.00	0.625 15.88	14400 19400	15900 21600	17400 23800
13 5/8" 346.08	88.20	0.625 15.88	14400 19400	15900 21600	17400 23800

For some applications, some customers or end users need specific VAM connections. The TSLI 25X contains these specific connections and indicates whether the standard torques listed here below or special make-up torques listed on TSLI 457 have to be applied.