VAM Family of Products for Unconventional Drilling





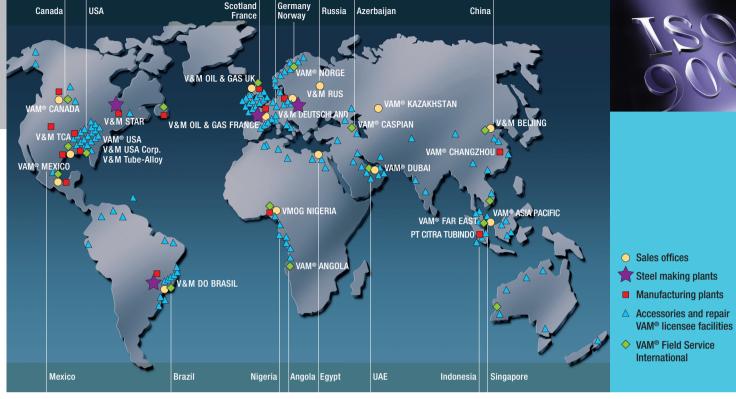








Our worldwide network for your success



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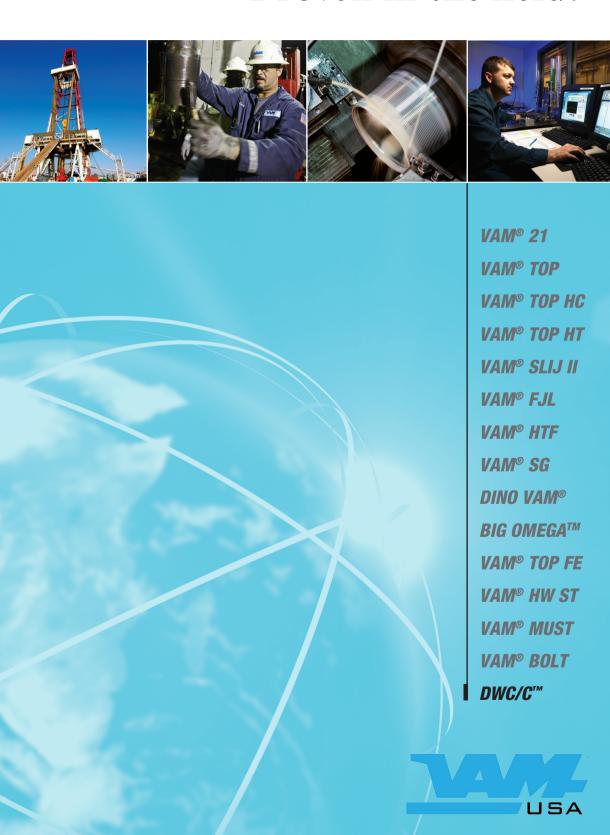
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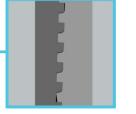




Proven in the lab. Proven in the field.

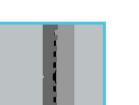






Modified API buttress thread form

- Widely accepted thread form
- Improved pressure resistance due to reduced thread flank clearances • Thread sealing obtained with any API connection thread compound



Pin-to-pin internal torque shoulder

- Mill-end made up to position
- Field-end pin made up to a makeup torque
- · Positive stop controls position of field-end pin
- Tight tolerances for torque shoulder control
- Adds preload into the shoulder for fatigue resistance

Stress reduction groove

- Patented stress reduction groove reduces the stresses in the coupling to enhance fatigue life
- Allows pin noses to shoulder without a long pin nose addition
- Allows for a shorter coupling compared to API BTC

Optional Teflon® seal ring

- All DWC models are offered with an optional seal ring groove
- Seal provided by entrapped seal ring
- Provides a reliable seal for the life of the string, unlike the thread
- seal which relies on solids in the thread compound to provide the
- Seal ring modification does not affect the connection's tensile rating





DWC/C is the original solution for casing rotation applications that exceeded API Buttress torque capabilities. Its validated performances make DWC/C the product of choice for drilling with casing and production casing in the Shales.

Every technical feature has been first proven in the lab and sequential field history supports that DWC/C benefits have been also proven in the field.

PIN TO PIN SHOULDER FOR ENHANCED TOROUE CAPACITY

DWC/C is fully compatible with API BTC coupling dimensions.

The pin to pin shoulder offers the required rotational resistance for most of the Shale applications.

A controlled mill end make-up procedure ensures an easy and accurate field make-up.

IMPROVED THREAD SEALING CAPABILITY VS. API BUTTRESS

An enhanced Buttress thread form ensures a superior thread sealing capability, while still maintaining interchangeability with the API buttress connection. In addition, an optional Teflon ring provides a reliable seal for the life of the string.

SCIENTIFICALLY VALIDATED

Fatigue testing

Following an extensive Finite Element Analysis, comprehensive physical tests have been performed to correlate with the finding of the FEA.

All of the fatigue samples were tested to failure, validating the performance capability when subjected to down hole conditions that are experienced during production casing installation.

BENEFITS

- Sound economics
- High resistance to cyclic torsional loads
- Superior sealing capability while subjected to dramatic cyclic loads
- Enhanced fatigue resistance
- Field friendly running procedures

Torque to failure

Torque-to-failure testing was also conducted to verify the torsional limits of the connection.

Up to 100% compression resistance

DWC/C compression capacity has been validated as being the same as the tension capacity. This new validation allows operators to utilize DWC/C in deviated wells where excessive torque, tension, and compression are required.

SUCCESSFUL RUNNING SINCE 2000

More than 10 years of experience make a huge difference. DWC/C has been widely adopted by end-users as the best alternative to API Buttress connections.



Size OD	Nominal Weight	Wall Thickness	Nominal ID	Drift Diameter	Coupling OD	Coupling Length	Makeup Loss	Pipe Body Area	Connection Tension Area	Connection Tension Efficiency	Connection Compression Efficiency	ompression Connection Internal Pressure (psi) Joint Strength (kips)								Connection Torque (ft-lbs)											
inch									AlGa	Lindency	Lincicity										J/K-55			L-80			P-110			Q-125	
	lb/ft	inch	inch	inch	inch	inch	inch	sq. in.	sq. in.	%	%	J/K-55	L-80	P-110	Q-125	J/K-55	L-80	P-110	Q-125	Min	Max	Yield	Min	Max	Yield	Min	Max	Yield	Min	Max	Yield
3.500	7.70	0.216	3.068	2.943	4.250	6.750	3.38	2.228	2.228	100.0	100.0	5,940	8,640	11,880	13,500	123	178	245	279	2,400	2,500	2,700	2,700	3,000	3,300	3,200	3,600	4,000	3,500	3,900	4,300
	9.20 10.20	0.254 0.289	2.992 2.922	2.867 2.797	4.250 4.250	6.750 6.750	3.38	2.590 2.915	2.590 2.915	100.0	100.0 100.0	6,990 7.950	10,160 11.560	13,970 15,900	15,880 18.060	142 160	207	285 321	324 364	2,900 3,300	3,100 3,700	3,400 4.000	3,400 4.000	3,800 4.500	4,200 5.000	4,100 4,900	4,700 5.600	5,200 6,200	4,500 5.300	5,100 6.100	5,700 6.800
	12.70	0.375	2.750	2.625	4.250	6.750	3.38	3.682	3.682	100.0	100.0	10,310	15,000	20,630	23,440	202	295	405	460	4,300	4,800	5,300	5,400	6,100	6,800	6,600	7,600	8,600	7,200	8,400	9,500
4.500	10.50 11.60	0.224	4.052	3.927	5.000	7.875 7.875	3.94	3.009	3.009	100.0	100.0	4,790 5,350	6,970 7,780	9,580	10,890 12,150	166 184	241 267	331 367	376 417	3,800 4,300	4,100 4,800	4,400 5,200	4,400 5,200	4,900 5,800	5,300 6,400	5,200 6,200	5,800 7,100	6,500 7,900	5,600 6,800	6,300 7,700	7,000 8,600
	12.60 13.50	0.271 0.290	3.958 3.920	3.833 3.795	5.000 5.000	7.875 7.875	3.94 3.94	3.600 3.836	3.600 3.836	100.0 100.0	100.0 100.0	5,800 6,200	8,430 9,020	11,590 12,410	13,170 14,100	198 211	288 307	396 422	450 479	4,800 5,200	5,300 5,700	5,800 6,300	5,800 6,300	6,500 7,100	7,200 7,900	7,000 7,700	8,000 8,800	9,000 9,900	7,600 8,400	8,700 9,700	9,800 10.900
	15.10	0.337	3.826	3.701	5.000	7.875	3.94	4.407	4.348	98.7	98.7	6,730	9,790	13,460	15,300	239	348	478	544	6,100	6,800	7,500	7,600	8,600	9,700	9,400	10,800	12,200	10,300	11,900	13,500
5.000	15.00 18.00	0.296 0.362	4.408 4.276	4.283 4.151	5.563 5.563	8.125 8.125	4.06 4.06	4.374 5.275	4.374 5.275	100.0	100.0	5,700 6.810	8,290 9.910	11,400 13.620	12,950 15.480	241 290	350 422	481 580	547 659	6,900 8,600	7,600 9.600	8,300 10.500	8,400 10.700	9,400 12.100	10,400 13.500	10,200 13,100	11,600 15,100	12,900 17.000	11,000 14,400	12,600 16.600	14,200 18,800
	20.30	0.408	4.184	4.059	5.563	8.125	4.06	5.886	5.466	92.9	92.9	6,810	9,910	13,620	15,480	301	437	601	683	9,700	10,800	12,000	12,100	13,800	15,500	15,100	17,400	19,700	16,500	19,100	21,800
	20.80 21.40	0.422 0.437	4.156 4.126	4.031 4.001	5.563 5.563	8.125 8.125	4.06 4.06	6.069 6.264	5.466 5.466	90.1 87.3	90.1 87.3	6,810 6,810	9,910 9,910	13,620 13,620	15,480 15,480	301 301	437	601 601	683 683	10,000	11,200 11,600	12,400 12,900	12,600 13,000	14,300 14,800	16,100 16,700	15,600 16,200	18,000 18,700	20,400 21,300	17,200 17,800	19,900 20,700	22,600 23,600
	23.20 24.10	0.478 0.500	4.044 4.000	3.919 3.875	5.563 5.563	8.125 8.125	4.06 4.06	6.791 7.069	5.466 5.466	80.5 77.3	80.5 77.3	6,810 6,810	9,910 9,910	13,620 13.620	15,480 15,480	301 301	437 437	601 601	683 683	11,200 11,700	12,600 13,100	14,000 14.600	14,200 14.800	16,300 17.000	18,300 19,200	17,800 18.600	20,600 21,600	23,500 24,600	19,600 20,500	22,800 23.900	26,000 27,300
5.500	15.50	0.300	4.950	4.825	6.050	8.250	4.00	4.514	4.514	100.0	100.0	4,810	7,000	9,630	10,940	248	361	497	564	7,000	7,700	8,400	8,500	9,600	10,600	10,400	11,800	13,300	11,300	12,900	14,600
	17.00 20.00	0.304 0.361	4.892 4.778	4.767 4.653	6.050 6.050	8.250 8.250	4.13 4.13	4.962 5.828	4.962 5.828	100.0	100.0 100.0	5,320 6,180	7,740 8,990	10,640 12,360	12,090 14,050	273 321	397 466	546 641	620 729	7,900 9,600	8,800 10.800	9,700 12,000	9,800 12,100	11,000 13.800	12,300 15.500	12,000 15.100	13,800 17.400	15,500 19.800	13,100 16,600	15,100 19,300	17,100 21.900
	23.00	0.415	4.670	4.545	6.050	8.250	4.13	6.630	5.898	89.0	89.0	6,180	8,990	12,360	14,050	324	472	649	737	11,100	12,600	14,000	14,200	16,300	18,400	17,800	20,700	23,600	19,700	23,000	26,200
	26.00 26.80	0.476 0.500	4.548 4.500	4.423 4.375	6.050	8.250 8.250	4.13 4.13	7.513 7.854	5.898 5.898	78.5 75.1	78.5 75.1	6,180 6,180	8,990 8,990	12,360 12,360	14,050 14,050	324 324	472 472	649 649	737 737	12,700 13,300	14,400 15,100	16,200 17,000	16,400 17,200	18,900 19,900	21,400 22,500	20,800	24,200 25,500	27,700 29,200	23,000 24,200	26,900 28,400	30,800 32,600
6.625	20.00	0.288 0.330	6.049 5.965	5.924 5.840	7.390 7.390	8.625 8.625	4.31 4.31	5.734 6.526	5.734 6.526	100.0	50.0 50.0	4,180	6,090 6,970	8,370 9,590	9,510 10,900	315 359	459 522	631 718	717	9,700 11,700	10,900 13,100	12,000 14,600	12,100 14,800	13,800 16,900	15,400 19,000	15,000 18,500	17,300 21,400	19,500 24,400	16,500 20,400	19,000	21,600 27,000
	23.20 24.00	0.352	5.905	5.796	7.390	8.625	4.31	6.937	6.937	100.0	50.0	4,790 5,110	7,440	10,230	11,620	382	555	763	816 867	12,600	14,300	15,900	16,100	18,500	20,900	20,300	23,600	26,800	22,400	23,700 26,100	29,800
	28.00 29.00	0.417 0.432	5.791 5.761	5.666 5.636	7.390 7.390	8.625 8.625	4.31 4.31	8.133 8.405	8.133 8.405	100.0	50.0 50.0	6,060 6,280	8,810 9.130	12,120 12,550	13,770 14,260	447 462	651 672	895 925	1,017 1.051	15,400 16,000	17,500 18,300	19,700 20,500	19,900 20,800	23,000 24.000	26,100 27.300	25,300 26,500	29,600 31.000	33,900 35,400	28,100 29,300	32,900 34,400	37,700 39,500
	32.00	0.475	5.675	5.550	7.390	8.625	4.31	9.177	9.177	100.0	50.0	6,750	9,820	13,500	14,780	505	734	1,010	1,147	17,700	20,300	22,800	23,100	26,800	30,600	29,600	34,700	39,800	32,900	38,700	44,500
7.000 *	35.00 23.00	0.525 0.317	5.575 6.366	5.450 6.250	7.390 7.656	8.625 9.000	4.31	10.061	9.637 6.655	95.8	47.9 50.0	6,750 4,360	9,820 6,340	13,500 8,720	14,780 9,910	530 366	771 532	1,060 732	1,205 832	19,600 11,500	22,500 13,000	25,400 14,500	25,800 14,700	30,000 16,800	34,200 18,900	33,200 18,400	38,900 21,400	44,700 24,300	36,800 20,300	43,400 23,600	50,000 27,000
7.000	26.00	0.362	6.276	6.151	7.656	9.000	4.50	7.549	7.549	100.0	50.0	4,980	7,240	9,960	11,310	415	604	830	944	13,700	15,600	17,500	17,700	20,400	23,100	22,500	26,200	29,900	24,800	29,100	33,300
	29.00 32.00	0.408 0.453	6.184	6.059	7.656 7.656	9.000	4.50 4.50	8.449 9.317	8.449 8.963	100.0 96.2	50.0 48.1	5,610 5,820	8,160 8,460	11,220 11,640	11,790 11,790	465 493	676 717	929 986	1,056 1,120	15,900 17,900	18,100 20,500	20,400 23,100	20,700 23,500	24,000 27,300	27,300 31,100	26,400 30,200	31,000 35,500	35,500 40,700	29,300 33,500	34,500 39,500	39,600 45,500
	35.00 38.00	0.498	6.004	5.879	7.656	9.000	4.50	10.172	8.963	88.1	44.1	5,820	8,460	11,640	11,790	493	717	986	1,120	19,800	22,800	25,800	26,200	30,500	34,900	33,800	39,800	45,800	37,600	44,400	51,300
	41.00	0.540 0.590	5.920 5.820	5.795 5.695	7.656 7.656	9.000 9.000	4.50 4.50	10.959 11.881	8.963 8.963	81.8 75.4	40.9 37.7	5,820 5,820	8,460 8,460	11,640 11,640	11,790 11,790	493 493	717 717	986 986	1,120 1,120	21,500 23,500	24,900 27,200	28,200 30,900	28,600 31,400	33,400 36,800	38,300 42,200	37,100 40,000	43,700 48,200	50,400 55,600	40,000 40,000	48,900 50,000	56,400 62,400
7.625	26.40 29.70	0.328 0.375	6.969 6.875	6.844 6.750	8.500 8.500	9.375 9.375	4.69 4.69	7.519 8.541	7.519 8.541	100.0	50.0 50.0	4,140 4,730	6,020 6,890	8,280 9,470	9,410 10,760	414 470	602 683	827 940	940 1,068	14,000 16,800	15,900 19,100	17,700 21,500	17,900 21,700	20,500 25,100	23,200 28,500	22,500 27,600	26,200 32,200	29,800 36,900	24,800 30,600	29,000 35,800	33,100 41,100
	33.70	0.430	6.765	6.640	8.500	9.375	4.69	9.720	9.720	100.0	50.0	5,430	7,900	10,860	12,340	535	778	1,069	1,215	19,900	22,800	25,700	26,000	30,200	34,400	33,400	39,100	44,900	37,000	43,600	50,100
	35.80 39.00	0.465 0.500	6.695 6.625	6.570 6.500	8.500 8.500	9.375 9.375	4.69 4.69	10.460	10.460	100.0	50.0 50.0	5,870 6,310	8,540 9,180	11,740 12,620	12,680 12,680	575 616	837 895	1,151 1,231	1,307 1.399	21,800	25,100 27,300	28,300 30,800	28,700 31,300	33,400 36,400	38,100 41.600	36,900 40.000	43,300 47.500	49,800 54,600	40,000 40.000	48,300 50.000	55,600 61,100
	42.80	0.562	6.501	6.376	8.500	9.375	4.69	12.470	12.470	100.0	50.0	6,730	9,790	12,680	12,680	686	998	1,372	1,559	26,900	31,000	35,200	35,700	41,700	47,700	40,000	50,000	62,800	40,000	50,000	70,400
8.625	47.10 28.00	0.625	6.375 8.017	6.250 7.892	8.500 9.625	9.375 9.625	4.69	13.744 7.947	12.759 7.947	92.8	46.4 50.0	6,730 3,390	9,790 4,930	12,680 6,780	12,680 7,710	702 437	1,021	1,403 874	1,595 993	29,900 14,900	34,600 16,800	39,300 18,800	39,900 19,000	46,800 21,900	53,700 24,700	40,000 24,000	50,000 28,000	70,800 31,900	40,000 26,500	50,000 31,000	79,400 35,500
	32.00 36.00	0.352	7.921 7.825	7.875	9.625 9.625	9.625 9.625	4.81 4.81	9.149 10.336	9.149 10.336	100.0 100.0	50.0 50.0	3,930	5,710	7,860 8,930	8,930 10,140	503	732 827	1,006 1,137	1,144 1,292	18,600 22,100	21,200	23,800	24,200	28,000	31,800	30,900 37,500	36,100 44,000	41,400 50,600	34,200 40,000	40,200	46,200 56,600
	40.00	0.400 0.450	7.725	7.700 7.625	9.625	9.625	4.81	11.557	11.557	100.0	50.0	4,460 5,020	6,490 7,300	10,040	11,230	568 636	925	1,271	1,445	25,700	25,400 29,700	28,700 33,600	29,100 34,100	33,900 39,800	38,700 45,600	40,000	50,000	59,900	40,000	49,100 50,000	67,100
	44.00 49.00	0.500 0.557	7.625 7.511	7.500 7.386	9.625 9.625	9.625 9.625	4.81 4.81	12.763 14.118	12.763 14.118	100.0	50.0 50.0	5,580 6,220	8,120 9,040	11,160 11,230	11,230 11,230	702 776	1,021 1,129	1,404 1,553	1,595 1,765	29,200 33,000	33,800 38,300	38,400 43,600	38,900 40,000	45,600 50,000	52,300 59,700	40,000 40,000	50,000 50,000	69,000 79,000	40,000 40,000	50,000 50,000	77,300 88,600
	57.40	0.656	7.313	7.188	9.625	9.625	4.81	16.423	16.337	99.5	49.7	6,700	9,750	11,230	11,230	899	1,307	1,797	2,042	39,200	45,700	52,200	40,000	50,000	71,900	40,000	50,000	95,500	40,000	50,000	107,300
9.625	36.00 40.00	0.352	8.921 8.835	8.765 8.750	10.625 10.625	9.625 9.625	4.81	10.254 11.454	10.254 11.454	100.0	50.0 50.0	3,520 3,950	5,120 5,750	7,040 7,900	8,000 8,980	564 630	820 916	1,128 1,260	1,282 1,432	21,800 25,700	25,100 29,800	28,400 33,800	28,800 34,300	33,600 40,200	38,400 46,100	37,200 40,000	43,900 50,000	50,500 60,900	40,000	49,000 50,000	56,500 68,300
	43.50	0.435	8.755	8.625	10.625	9.625	4.81	12.559	12.559	100.0	50.0	4,350	6,330	8,700	9,160	691	1,005	1,381	1,570	29,300	34,000	38,700 43,200	39,300	46,200	53,100	40,000	50,000	70,300	40,000	50,000	78,900
	47.00 53.50	0.472 0.545	8.681 8.535	8.525 8.500	10.625 10.625	9.625 9.625	4.81 4.81	13.572 15.546	13.572 15.546	100.0 100.0	50.0 50.0	4,720 5,450	6,870 7,930	9,160 9,160	9,160 9,160	746 855	1,086 1,244	1,493 1,710	1,697 1,943	32,500 38,600	37,800 45,100	43,200 51,700	40,000 40,000	50,000 50,000	59,400 71,500	40,000 40,000	50,000 50,000	78,900 95,200	40,000 40,000	50,000 50,000	88,600 107,100
10.750	58.40 40.50	0.595 0.350	8.435 10.050	8.375 9.894	10.625 11.750	9.625 9.625	4.81 4.81	16.879 11.435	16.879 11.435	100.0	50.0 50.0	5,950 3,130	8,650 4.560	9,160 6,270	9,160 7,120	928 629	1,350 915	1,857 1,258	2,110 1,429	40,000 25,600	50,000 29,700	57,300 33,800	40,000 34,300	50,000 40,400	79,500 46,400	40,000 40,000	50,000 50,000	106,100 61,400	40,000 40,000	50,000 50,000	119,400 68,900
10.750	45.50	0.400	9.950	9.875	11.750	9.625	4.81	13.006	13.006	100.0	50.0	3,580	5,210	7,160	7,450	715	1,040	1,431	1,626	31,200	36,500	41,700	40,000	49,900	57,500	40,000	50,000	76,500	40,000	50,000	86,000
	51.00 55.50	0.450 0.495	9.850 9.760	9.694 9.625	11.750 11.750	9.625 9.625	4.81 4.81	14.561 15.947	14.561 15.947	100.0	50.0 50.0	4,030 4,430	5,860 6,450	7,450 7,450	7,450 7,450	801 877	1,165 1,276	1,602 1,754	1,820 1,993	36,700 40,000	43,000 48,800	49,300 56,000	40,000 40,000	50,000 50,000	68,400 78,000	40,000 40,000	50,000 50,000	91,300 104,300	40,000 40,000	50,000 50,000	102,800 117,500
	60.70	0.545	9.660	9.504	11.750	9.625	4.81	17.473	17.473	100.0	50.0	4,880	7,100	7,450	7,450	961	1,398	1,922	2,184	40,000	50,000	63,300	40,000	50,000	88,400	40,000	50,000	118,500	40,000	50,000	133,500
11.750	65.70 47.00	0.595 0.375	9.560	9.500 10.844	11.750 12.750	9.625 9.625	4.81 4.81	18.982 13.401	18.982 13.401	100.0	50.0 50.0	5,330 3,070	7,450 4,470	7,450 6,140	7,450 6,300	1,044 737	1,519 1,072	2,088 1,474	2,373 1,675	40,000 32,900	50,000 38,500	70,400 44,200	40,000 40,000	50,000 50,000	98,500 61,300	40,000 40,000	50,000 50,000	132,300 81,800	40,000 40,000	50,000 50,000	149,200 92,000
	54.00	0.435	10.880	10.724	12.750	9.625	4.81	15.463	15.463	100.0	50.0	3,560	5,180	6,300	6,300	850	1,237	1,701	1,933	40,000	48,000	55,300	40,000	50,000	77,100	40,000	50,000	103,300	40,000	50,000	116,400
	60.00 65.00	0.489 0.534	10.772 10.682	10.625 10.625	12.750 12.750	9.625 9.625	4.81 4.81	17.300 18.816	17.300 18.816	100.0	50.0 50.0	4,010 4,370	5,830 6,300	6,300 6,300	6,300 6,300	951 1,035	1,384 1,505	1,903 2,070	2,162 2,352	40,000	50,000 50,000	65,000 72,900	40,000 40,000	50,000 50,000	91,000 102,300	40,000 40,000	50,000 50,000	122,200 137,700	40,000 40,000	50,000 50,000	137,900 155,400
	71.00 74.60	0.582 0.618	10.586 10.514	10.430 10.358	12.750 12.750	9.625 9.625	4.81 4.81	20.420 21.613	20.420 21.613	100.0 100.0	50.0 50.0	4,770 5,060	6,300 6,300	6,300 6,300	6,300 6,300	1,123 1,189	1,634 1,729	2,246 2,377	2,552 2,702	40,000 40,000	50,000 50,000	81,100 87,200	40,000 40,000	50,000 50,000	114,200 122,900	40,000 40,000	50,000 50,000	153,800 165,700	40,000 40,000	50,000 50,000	173,700 187,200
13.375	54.50	0.380	12.615	12.459	14.375	9.625	4.81	15.513	15.513	100.0	50.0	2,730	3,980	4,930	4,930	853	1,241	1,706	1,939	40,000	49,500	57,000	40,000	50,000	79,900	40,000	50,000	107,400	40,000	50,000	121,200
	61.00 68.00	0.430 0.480	12.515 12.415	12.359 12.259	14.375 14.375	9.625 9.625	4.81 4.81	17.487 19.445	17.487 19.445	100.0 100.0	50.0 50.0	3,090 3,450	4,500 4.930	4,930 4,930	4,930 4,930	962 1.069	1,399 1,556	1,924 2,139	2,186 2,431	40,000 40,000	50,000 50,000	69,000 80,800	40,000 40,000	50,000 50,000	97,100 114,000	40,000 40,000	50,000 50,000	130,900 153,900	40,000 40,000	50,000 50,000	147,800 173,900
	72.00	0.514	12.347	12.250	14.375	9.625	4.81	20.768	20.768	100.0	50.0	3,700	4,930	4,930	4,930	1,142	1,661	2,284	2,596	40,000	50,000	88,600	40,000	50,000	125,300	40,000	50,000	169,400	40,000	50,000	191,400
	77.00 80.70	0.550 0.580	12.275 12.215	12.119 12.059	14.375 14.375	9.625 9.625	4.81 4.81	22.160 23.314	22.160 23.314	100.0	50.0 50.0	3,960 4,170	4,930 4,930	4,930 4,930	4,930 4,930	1,219 1,282	1,773 1,865	2,438 2,565	2,770 2,914	40,000 40,000	50,000 50,000	96,800 103,600	40,000 40,000	50,000 50,000	137,200 146,900	40,000 40,000	50,000 50,000	185,500 198,800	40,000 40,000	50,000 50,000	209,700 224,800
	91.00	0.660	12.055	11.899	14.375	9.625	4.81	26.364	24.911	94.5	47.2	4,490	4,930	4,930	4,930	1,370	1,993	2,740	3,114	40,000	50,000	121,300	40,000	50,000	172,300	40,000	50,000	233,600	40,000	50,000	264,200



DWC/C-HT best-in-class performances solve your extra torque requirements

- · Tough: ideal for operators who need more torque
- · Dependable: torque ratings validated with physical testing
- · Trouble-Free: compatible with DWC/C and Buttress
- · Quality: manufactured on premium threading lines
- · From the people you trust: VAM technical support, wide licensee network, assistance from VAM Field Service at the rig site

VALIDATED PERFORMANCE PROPERTIES

Size OD	Nominal Weight	Wall Thickness	Drift Diameter	Coupling OD	Connection Tension and Compression Efficiency	Connection Yield Torque (ft-lbs)						
inch	lb/ft	inch	inch	inch	%	T95	P110	P110EC	Q125			
1.500	10.50	0.224	3.927	5.000	100.0	7,100	7,800	8,500	8,500			
1.500	11.60	0.250	3.875	5.000	100.0	8,500	9,400	10,300	10,300			
1.500	12.60	0.271	3.833	5.000	100.0	9,400	10,500	11,500	11,500			
1.500	13.50	0.290	3.795	5.000	100.0	10,300	11,400	12,600	12,600			
1.500	15.10	0.337	3.701	5.000	98.7	12,600	14,000	15,500	15,500			
5.000	15.00	0.296	4.283	5.563	100.0	14,000	15,500	17,000	17,000			
5.000	18.00	0.362	4.151	5.563	100.0	18,000	20,100	22,200	22,200			
5.000	20.30	0.408	4.059	5.563	92.9	20,200	22,600	25,000	25,000			
5.000	20.80	0.422	4.031	5.563	90.1	20,700	23,200	25,700	25,700			
5.000	21.40	0.437	4.001	5.563	87.3	21,300	23,900	26,500	26,500			
5.000	23.20	0.478	3.919	5.563	80.5	22,600	25,400	28,200	28,200			
5.000	24.10	0.500	3.875	5.563	77.3	23,300	26,200	29,100	29,100			
5.500	15.50	0.275	4.825	6.050	100.0	14,300	15,900	17,500	17,500			
5.500	17.00	0.304	4.767	6.050	100.0	16,700	18,700	20,600	20,600			
5.500	20.00	0.361	4.653	6.050	100.0	21,200	23,800	26,300	26,300			
5.500	23.00	0.415	4.545	6.050	89.0	24,700	27,800	30,800	30,800			
5.500	26.00	0.476	4.423	6.050	78.5	27,600	31,200	34,700	34,700			
5.500	26.80	0.500	4.375	6.050	75.1	28,700	32,400	36,100	36,100			

^{*}This connection will be available with the new API 5CT coupling OD of 7.875