

# Model CTST: Topside Bolt Tensioners.

Model: CTST 9000 Series

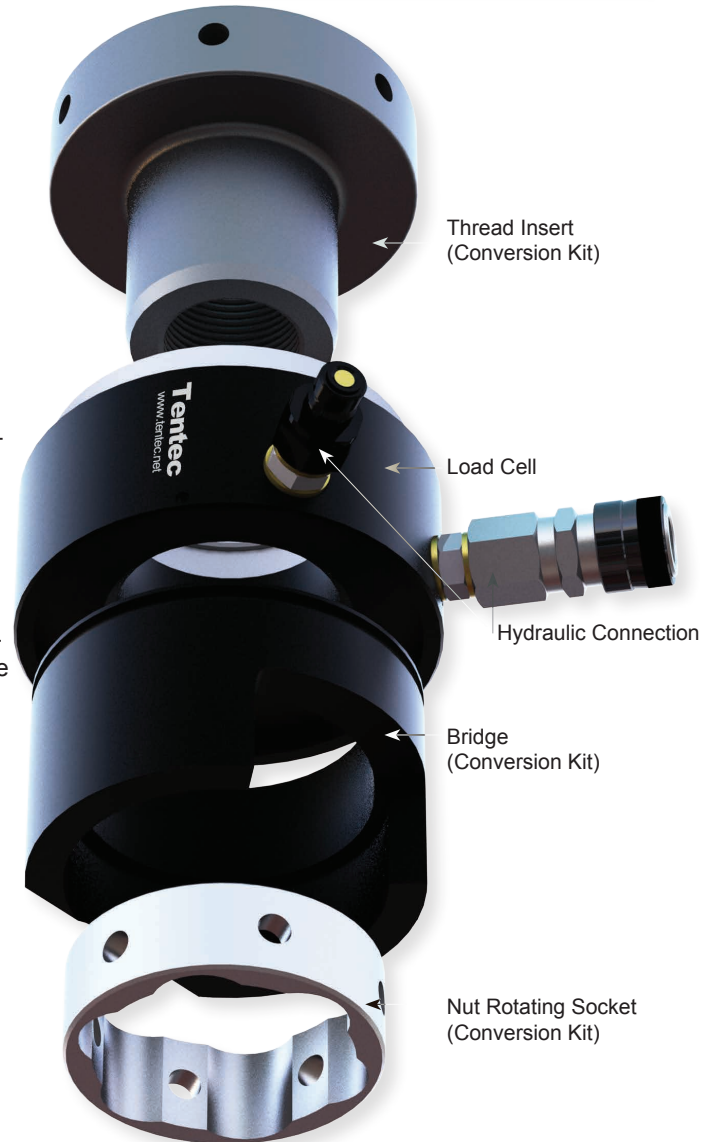
The CTST range of topside bolt tensioning tools from Tentec consist of 6 base tools covering bolt sizes from 3/4" to 4" (M20 to M100). The tools are designed to fit on to most ANSI B16.5, ANSI B16.47 Series 1, MSS-SP44, API-6A and API-17D flanges. Each base tool can be converted for use on a different bolt size by the use of a conversion kit.

## To Suit Flange Specifications:

ANSI B16.5  
ANSI B16.47 Series A  
MSS-SP44  
API-6A  
API-17D

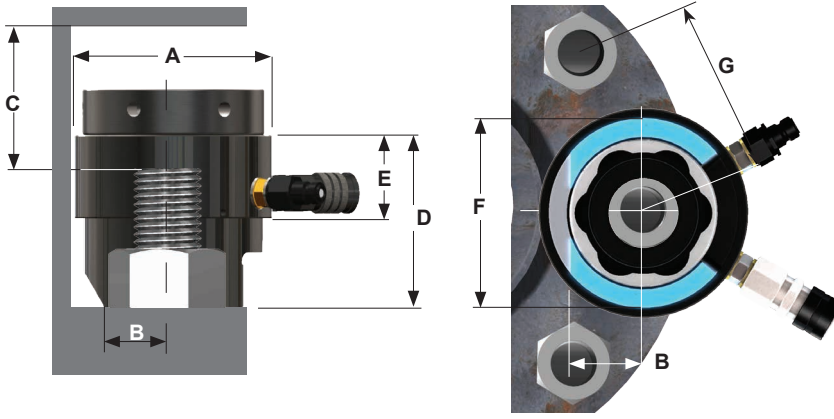
## Consistent, Dependable and Safe

- **Consistent:** Using multiple bolt tensioning tools on a bolted joint gives a much improved uniform bolt load across all bolts.
- **Axial Bolt Load:** Bolt load is applied axially to the bolt. Inconsistencies such as friction, bending and lubricant are not a factor when using bolt tensioners. No torsional stresses are involved.
- **Rapid:** Multiple bolt tensioners offer a rapid and accurate method of tightening a bolt.
- **Adaptable:** Conversion kits are available to convert a tensioner from one bolt size to another offering an economical and versatile solution.
- **Accurate:** Bolt load is directly proportional to the pressure applied to the tensioner.
- **Standard Fasteners:** Tensioners are mostly used with standard fasteners, no special or proprietary bolting components are required.
- **Simplified Calculations:** Using the Tentec BTS-Bolt Tightening Software takes away the complexity of calculating tensioner pressures and torque values.



## BTS-Software

The use of Tentec's Bolt Load Software package along side the CTST range of bolt tensioning tools completely removes the complexity of calculating what pressure to operate the tensioning tools. A complete bolt tensioning project can be defined and rapid joint specific technical data sheets can be produced with all the information that the operator of the equipment needs to successfully tighten the bolted joint.

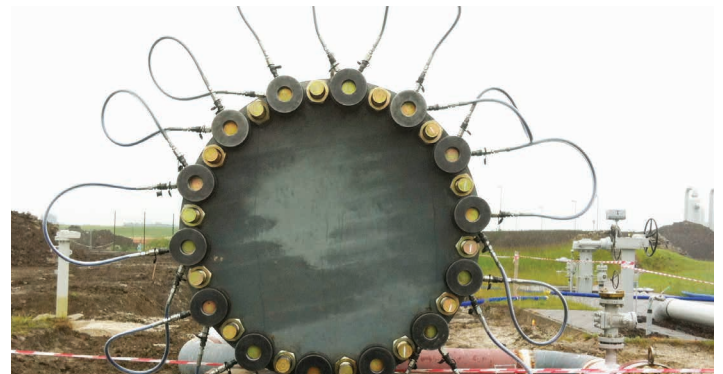


Maximum Working Pressure = 21750 psi : 1500 bar

Non standard metric pitch tensioners available on request.

### Technical Specifications

Tool	Part No	Thread Size			Part No	Bolt Load		Ram Area		Stroke	Weight	A	B	C	D	E	F	G	Metric Conversion Kit	Inch Conversion Kits
Ident	Imperial	Inch	mm	Metric	Kn	Ton	In <sup>2</sup>	mm <sup>2</sup>	mm	kg	mm									
1	HTT.9551:0750	3/4"-10UNC	M20x2.5	HTT.9551:M20	227.81	22.86	2.354	1518.76	10	2.0	73.50	21.0	67.00	71.0	45	62	49.5	HTT.9551.521	HTT.9551.536	
	HTT.9551:0875	7/8"-8UNC	M22x2.5	HTT.9551:M22						1.9		24.0	64.00	71.0		63	53	HTT.9551.523	HTT.9551.580	
	HTT.9551:1000	1"-8UNC	M24x3	HTT.9551:M24						1.9		24.0	69.00	78.0		69	58.5	HTT.9551.525	HTT.9551.502	
	HTT.9551:1125	1.1/8"-8UNC	M27x3	HTT.9551:M27						1.9		24.0	66.00	79.0		74	63.5	HTT.9551.528	HTT.9551.520	
2	HTT.9552:1125	1.1/8"-8UNC	M27x3	HTT.9552:M27	443.00	44.46	4.578	2953.69	15	4.8	102	27.0	85.50	92.0	54	82	67.5	HTT.9552.528	HTT.9552.520	
			M30x3.5	HTT.9552:M30						4.9		32.0	85.00	93.0		85	69	HTT.9552.532		
	HTT.9552:1250	1.1/4"-8UNC	M33x3.5	HTT.9552:M33						4.6		31.0	84.00	95.0		85	72	HTT.9552.534	HTT.9552.516	
	HTT.9552:1375	1.3/8"-8UNC	M36x4	HTT.9552:M36						4.6		34.0	84.00	98.0		91	78	HTT.9552.537	HTT.9552.540	
	HTT.9552:1500	1.1/2"-8UNC	M39x4	HTT.9552:M39						4.7		36.5	82.00	100.0		90	80	HTT.9552.514	HTT.9552.511	
3	HTT.9553:1500	1.1/2"-8UNC	M39x4	HTT.9553:M39	810.85	81.38	8.379	5405.70	15	9.5	133	36.5	98.00	109.0	56	97	83.5	HTT.9553.514	HTT.9553.514	
	HTT.9553:1625	1.5/8"-8UNC	M42x4.5	HTT.9553:M42						9.0		37.5	93.00	107.0		110	92.5	HTT.9553.543	HTT.9553.516	
	HTT.9553:1750	1.3/4"-8UNC	M45x4.5	HTT.9553:M45						9.3		40.5	98.50	116.0		115	98	HTT.9553.546	HTT.9553.536	
	HTT.9553:1875	1.7/8"-8UNC	M48x5	HTT.9553:M48						9.0		42.5	95.00	116.0		116	101	HTT.9553.549	HTT.9553.580	
	HTT.9553:2000	2"-8UNC	M52x5	HTT.9553:M52						8.6		50.0	93.50	117.0		120	106	HTT.9553.553	HTT.9553.502	
4	HTT.9554:1875	1.7/8"-8UNC	M48x5	HTT.9554:M48	1273.16	127.78	13.159	8489.96	15	16.1	163	43.5	106.00	118.0	57	130	108	HTT.9554.549	HTT.9554.580	
	HTT.9554:2000	2"-8UNC	M52x5	HTT.9554:M52						15.7		46.0	102.50	117.0		124	108	HTT.9554.553	HTT.9554.502	
	HTT.9554:2250	2.1/4"-8UNC	M56x5.5	HTT.9554:M56						15.8		55.0	103.00	123.0		134	118.5	HTT.9554.557	HTT.9554.516	
			M60x5.5	HTT.9554:M60						18.3		54.0	121.50	145.5		150	127	HTT.9554.562		
	HTT.9554:2500	2.1/2"-8UNC	M64x6	HTT.9554:M64						15.1		58.0	102.50	130.0		147	130.5	HTT.9554.568	HTT.9554.511	
5	HTT.9555:2500	2.1/2"-8UNC	M64x6	HTT.9555:M64	1828.99	183.56	18.905	12196.45	15	22.7	193	64.0	107.50	133.0	60	147	130.5	HTT.9555.565	HTT.9555.514	
			M68x6	HTT.9555:M68						23.6		80.0	111.00	141.0		160	138	HTT.9555.570		
	HTT.9555:2750	2.3/4"-8UNC	M72x6	HTT.9555:M72						24.7		72.0	115.00	147.0		161	143	HTT.9555.573	HTT.9555.536	
	HTT.9555:3000	3"-8UNC	M76x6	HTT.9555:M76						22.2		77.0	108.00	146.0		170	153	HTT.9555.577	HTT.9555.502	
6	HTT.9556:3000	3"-8UNC	M76x6	HTT.9556:M76	2643.43	265.30	27.323	17627.48	15	38.5	233	77.0	120.00	153.0	64	170	153	HTT.9556.577	HTT.9556.502	
			M80x6	HTT.9556:M80						38.3		78.0	117.00	154.0		178	155.5	HTT.9556.582		
	HTT.9556:3250	3.1/4"-8UNC	M85x6	HTT.9556:M85						38.1		78.0	114.00	154.0		182	165.5	HTT.9556.586	HTT.9556.516	
	HTT.9556:3500	3.1/2"-8UNC	M90x6	HTT.9556:M90						37.0		86.0	114.00	160.0		191	174.5	HTT.9556.591	HTT.9556.511	
	HTT.9556:3750	3.3/4"-8UNC	M95x6	HTT.9556:M95						37.0		99.0	116.00	168.0		210	189.5	HTT.9556.596	HTT.9556.536	
	HTT.9556:4000	4"-8UNC	M100x6	HTT.9556:M100						36.4		105.0	116.00	174.0		220	200	HTT.9556.501	HTT.9556.542	



CTST tensioning tools are supplied with two hydraulic connections. This allows for very simple link hose configuration to link multiple bolt tensioning tools together.