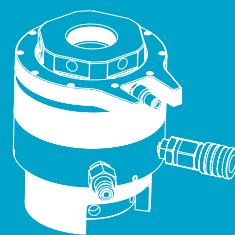


# *Tentec Airbac bolt tensioners*



A groundbreaking range of air activated piston retract tensioners focused on improving operational productivity

*Atlas Copco*



# Tentec Airbac Bolt Tensioners

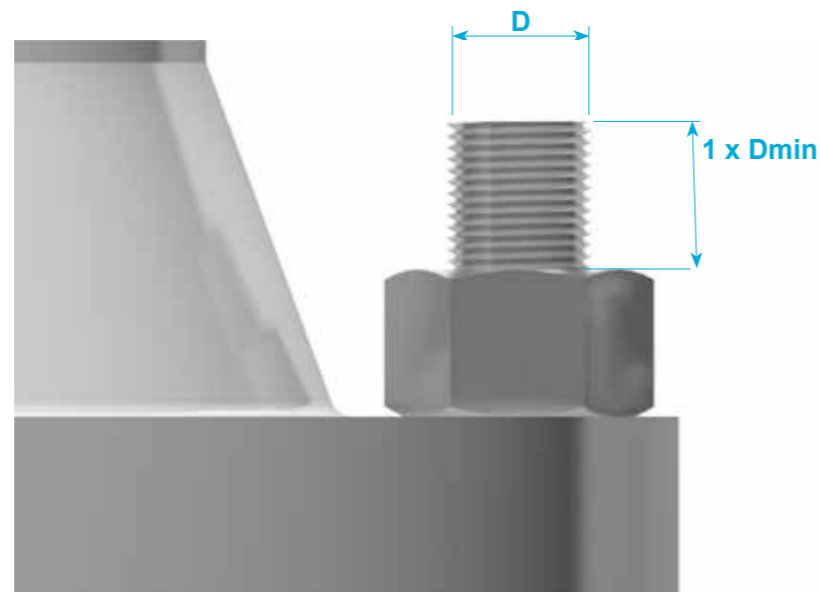
## Topside Bolt Tensioning

The patented Airbac range of Tentec topside bolt tensioning tools 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.



## Bolt Protrusion

The patented Airbac Series tensioners need a minimum of 1 x bolt diameter protruding above the hexagon or round nut.



## Bolt Tightening Solutions

*Consistent, Dependable and Safe.*

*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.*

*Accurate: Bolt load is directly proportional to the pressure applied to the tensioner.*

## Available for Customised Solutions

*The patented Airbac piston retract technology can also be incorporated into our custom tensioner designs ensuring that customers who have unique applications can also benefit from operational time savings*

Reduced diameter thread insert provides weight saving

One piece end cap and valve protection brackets

One way air valve for rapid re-charging

Outside diameter same as CTST model ensuring compatibility with ASME, ANSI and API flanges

Standard bridge and NRS interchangeable with CTST tool range

## Conversion Kits

Conversion Kits offer a very economical way to expand your inventory of bolt tensioning tools. Kits are available to convert the patented Airbac tensioner to suit an alternative bolt size within its size range. Kits consist of a Puller, Bridge and Nut Rotating Socket. Please refer to technical data sheet for corresponding conversion kits.

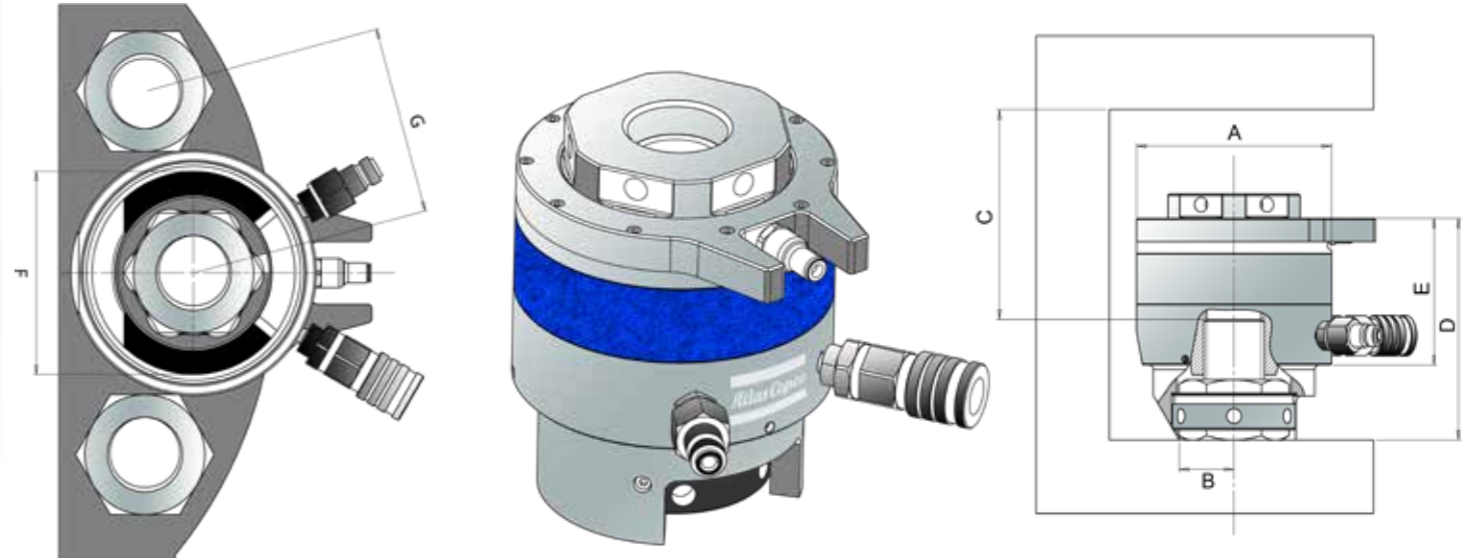
## Benefits

- Piston return more than 3 times as fast as spring assisted tensioners
- A 20% weight saving versus spring assisted equivalents reduces operator fatigue
- Enhanced corrosion protection for harsh environments
- Identical hydraulic pressure areas, load outputs, and MWP (1500 bar) as the CTST range
- Easier and less frequent maintenance than spring assisted tensioners





## Technical Specifications



Maximum Working Pressure = 1500bar

Tool Identification	Thread Size	Complete Tool GA No	Ordering No	Conversion Kit No	Ordering No	Tool Load		Hydraulic Pressure Area		Stroke		Total Tool Weight		Load Cell Weight Only	
						kN	Ton	mm <sup>2</sup>	in <sup>2</sup>	mm	In	kg	lbs	kg	lbs
AB-01	3/4"	HTT.18001.034	8434220431	HTT.18001.201	4222260050	227.81	22.86	1518.75	2.35	10	0.394	2.70	5.94	1.63	3.59
	M20 x 2.5	HTT.18001.020	8434220432	HTT.18001.202	4222260051							2.70	5.94		
	7/8"	HTT.18001.078	8434220433	HTT.18001.203	4222260052							2.6	5.72		
	M22 x 2.5	HTT.18001.022	8434220434	HTT.18001.204	4222260053							2.62	5.76		
	1"	HTT.18001.100	8434220435	HTT.18001.205	4222260054							2.70	5.94		
	M24 x 3	HTT.18001.024	8434220436	HTT.18001.206	4222260055							2.75	6.05		
	1 1/8"	HTT.18001.118	8434220437	HTT.18001.207	4222260056							2.72	5.98		
AB-02	M27 x 3	HTT.18001.027	8434220438	HTT.18001.208	4222260057	443.06	44.47	2953.73	4.58	10	0.394	2.80	6.16	3.02	6.64
	1 1/8"	HTT.18002.118	8434220440	HTT.18002.200	4222260058							5.57	12.25		
	M27 x 3	HTT.18002.027	8434220441	HTT.18002.201	4222260059							5.64	12.41		
	M30 x 3.5	HTT.18002.030	8434220442	HTT.18002.202	4222260060							5.68	12.50		
	1 1/4"	HTT.18002.114	8434220443	HTT.18002.203	4222260061							5.50	12.10		
	M33 x 3.5	HTT.18002.033	8434220444	HTT.18002.204	4222260062							5.49	12.08		
	1 3/8"	HTT.18002.138	8434220445	HTT.18002.205	4222260063							5.56	12.23		
AB-03	M36 x 4	HTT.18001.036	8434220446	HTT.18002.206	4222260064	810.85	81.38	5405.67	8.38	10	0.394	5.57	12.25	6.52	14.34
	1 1/2"	HTT.18002.112	8434220447	HTT.18002.207	4222260065							5.59	12.30		
	M39 x 4	HTT.18002.039	8434220448	HTT.18002.208	4222260066							5.71	12.56		
	M36 x 4	HTT.18003.036	8434220450	HTT.18003.300	4222260067							11.83	26.03		
	1 1/2"	HTT.18003.112	8434220451	HTT.18003.301	4222260068							11.67	25.67		
	M39 x 4	HTT.18003.039	8434220452	HTT.18003.302	4222260069							11.72	25.78		
	1 5/8"	HTT.18003.158	8434220453	HTT.18003.303	4222260070							11.37	25.01		
AB-04	M42 x 4.5	HTT.18003.042	8434220454	HTT.18003.304	4222260071	1273.49	127.81	8489.93	13.16	10	0.394	11.52	25.34	9.51	20.92
	1 3/4"	HTT.18003.134	8434220455	HTT.18003.305	4222260072							11.66	25.65		
	M45 x 4.5	HTT.18003.045	8434220456	HTT.18003.306	4222260073							11.71	25.76		
	1 7/8"	HTT.18003.178	8434220457	HTT.18003.307	4222260074							11.52	25.34		
	M48 x 5	HTT.18003.048	8434220458	HTT.18003.308	4222260075							11.61	25.54		
	2"	HTT.18003.200	8434220459	HTT.18003.309	4222260076							11.16	24.55		
	M52 x 5	HTT.18003.052	8434220460	HTT.18003.310	4222260077							11.18	24.60		
AB-05	M42 x 4.5	HTT.18004.042	8434220462	HTT.18004.300	4222260078	1829.47	183.61	12196.50	18.90	10	0.394	18.32	40.30	14.81	32.58
	1 7/8"	HTT.18004.178	8434220463	HTT.18004.301	4222260079							17.87	39.31		
	M48 x 5	HTT.18004.048	8434220464	HTT.18004.302	4222260080							17.97	39.53		
	2"	HTT.18004.200	8434220465	HTT.18004.303	4222260081							17.53	38.57		
	M52 x 5	HTT.18004.052	8434220466	HTT.18004.304	4222260082							17.57	38.65		
	2 1/4"	HTT.18004.214	8434220467	HTT.18004.305	4222260083							17.87	39.31		
	M56 x 5.5	HTT.18004.056	8434220468	HTT.18004.306	4222260084							18.28	40.22		
AB-06	M60 x 5.5	HTT.18004.060	8434220469	HTT.18004.307	4222260085	2644.13	265.37	17627.51	27.32	10	0.394	20.52	45.14	20.33	44.73
	2 1/2"	HTT.18004.212	8434220470	HTT.18004.308	4222260086							17.36	38.19		
	M64 x 6	HTT.18004.064	8434220471	HTT.18004.309	4222260087							17.71	38.96		
	2 1/2"	HTT.18005.212	8434220473	HTT.18005.400	4222260088							26.99	59.38		
	M64 x 6	HTT.18005.064	8434220474	HTT.18005.401	4222260089							27.35	60.17		
	M68 x 6	HTT.18005.068	8434220475	HTT.18005.402	4222260090							28.05	61.71		
	2 3/4"	HTT.18005.234	8434220476	HTT.18005.403	4222260091							29.08	63.98		
AB-06	M72 x 6	HTT.18005.072	8434220477	HTT.18005.404	4222260092	1829.47	183.61	12196.50	18.90	10	0.394	29.33	64.53	14.81	32.58
	3"	HTT.18005.300	8434220478	HTT.18005.405	4222260093							26.98	59.36		
	M76 x 6	HTT.18005.076	8434220479	HTT.18005.406	4222260094							27.76	61.07		
	3"	HTT.18006.300	8434220481	HTT.18006.500	4222260095							41.45	91.19		
	M76 x 6	HTT.18006.076	8434220482	HTT.18006.501	4222260096							42.23	92.91		
	M80 x 6	HTT.18006.080	8434220483	HTT.18006.502	4222260097							41.54	91.39		
	3 1/4"	HTT.18006.314	8434220484	HTT.18006.503	4222260098							41.42	91.12		
AB-06	M85 x 6	HTT.18006.085	8434220485	HTT.18006.504	4222260099	2644.13	265.37	17627.51	27.32	10	0.394	41.95	92.29	20.33	44.73
	3 1/2"	HTT.18006.312	8434220486	HTT.18006.505	4222260100							40.55	89.21		
	M90 x 6	HTT.18006.090	8434220487	HTT.18006.506	4222260101							41.20	90.64		
	3 3/4"	HTT.18006.334	8434220488	HTT.18006.507	4222260102							40.81	89.78		
	M95 x 6	HTT.18006.095	8434220489	HTT.18006.508	4222260103							42.00	92.40		
	4"	HTT.18006.400	8434220490	HTT.18006.509	4222260104							40.88	89.94		
	M100 x 6	HTT.18006.100	8434220491	HTT.18006.510	4222260105							41.79	91.94		

Tool Identification	Thread Size	Tentec Complete Tool No	Ordering No	Dimensions											
				A	B	C	D	E	F	G					
AB-01	3/4"	HTT.18001.034	8434220431	73.5	21	75	79	53	62	49.5					
	M20 x 2.5	HTT.18001.020	8434220432								21	74	79	63	49.5
	7/8"	HTT.18001.078	8434220433								24	72	79	63	53
	M22 x 2.5	HTT.18001.022	8434220434								24	72	79	63	53
	1"	HTT.18001.100	8434220435								24	75.75	86	69	58.5
	M24 x 3	HTT.18001.024	8434220436								24	77	86	69	58.5
	1 1/8"	HTT.18001.118	8434220437								27	73.5	87	74	63.5
AB-02	M27 x 3	HTT.18001.027	8434220438	102	27	97.5	104	66	82	67.5					
	1 1/8"	HTT.18002.118	8434220440								27	99	104	82	67.5
	M27 x 3	HTT.18002.027	8434220441								32	97	105	85	69
	M30 x 3.5	HTT.18002.030	8434220442								31	97.5	107	85	72
	1 1/4"	HTT.18002.114	8434220443								31	96	107	85	72
	M33 x 3.5	HTT.18002.033	8434220444								34	97.25	110	91	78
	1 3/8"	HTT.18002.138	8434220445								34	96	110	91	78
AB-03	M36 x 4	HTT.18001.036	8434220446	133	36.5	130.5	153	100	97	83.5					
	1 1/2"	HTT.18003.112	8434220451								36.5	128.5	153	97	83.5
	M39 x 4	HTT.18003.039	8434220452								36.5	127.5	153	97	83.5
	1 5/8"	HTT.18003.158	8434220453								37.5	123.25	151	110	92.5
	M42 x 4.5	HTT.18003.042	8434220454								37.5	122.5	151	110	92.5
	1 3/4"	HTT.18003.134	8434220455								40.5	129.25	160	115	98
	M45 x 4.5	HTT.18003.045	8434220456								40.5	128.5	160	115	98
AB-04	1 7/8"	HTT.18003.178	8434220457	163	42.5	126	160	100	116	101					
	M48 x 5	HTT.18003.048	8434220458								42.5	125.5	160	116	101
	2"	HTT.18003.200	8434220459								50	123.75	161	120	106
	M52 x 5	HTT.18003.052	8434220460								50	122.5	161	120	106
	M42 x 4.5	HTT.18004.042	8434220462								43.5	134.25	161	130	108
	1 7/8"	HTT.18004.178	8434220463								43.5	128.75	161	130	108
	M48 x 5	HTT.18004.048	8434220464								43.5	128.25	161	130	108
AB-05	2"	HTT.18004.200	8434220465	193	46	124.5	160	111.25	124	108					
	M52 x 5	HTT.18004.052	8434220466								46	123.25	160	124	108
	2 1/4"	HTT.18004.214	8434220467								55	124.25	166	134	118.5
	M56 x 5.5	HTT.18004.056	8434220468								55	125.25	166	134	118.5
	M60 x 5.5	HTT.18004.060	8434220469								54	143.75	188.5	150	127
	2 1/2"	HTT.18004.212	8434220470								58	124.75	173	147	130.5
	M64 x 6	HTT.18004.064	8434220471								58	124.25	173	147	130.5
AB-06	2 1/2"	HTT.18005.212	8434220473	233	64	138.25	184.25	111.25	147	130.5					
	M64 x 6	HTT.18005.064	8434220474								64	137.75	184.25	147	130.5
	M68 x 6	HTT.18005.068	8434220475								80	141.75	192.25	160	138
	2 3/4"	HTT.18005.234	8434220476								72	146	198.25	161	143
	M72 x 6	HTT.18005.072	8434220477								72	143.75	198.25	161	143
	3"	HTT.18005.300	8434220478								77	138.75	197.25	170	153
	M76 x 6	HTT.18005.076	8434220479								77	138.75	197.25	170	153
AB-06	3"	HTT.18006.300	8434220481	233	77	141.75	200.25	111.25	170	153					
	M76 x 6	HTT.18006.076	8434220482								77	141.75	200.25	170	153

## Pump Options

Operation of the Airbac tools is simple and users can choose a pump system to best match their needs. The new style pump unit comes complete with the integrated Airbac charging system, whereas the retro-fit kit easily and quickly adapts to the standard Tentec Air driven pump unit allowing existing customers to utilise pumps already in their fleet

## New Style

- . Built in re-charging system
- . Stainless Steel frame
- . Reduced size and weight
- . Hi Flow 600 motor as standard, 500 motor optional

10 times faster piston retraction than our standard air operated pump unit



## Retro fit kit

- . Rapidly installed using just two bolts
- . Separate FRL controls charging pressure
- . Reduces overall investment cost



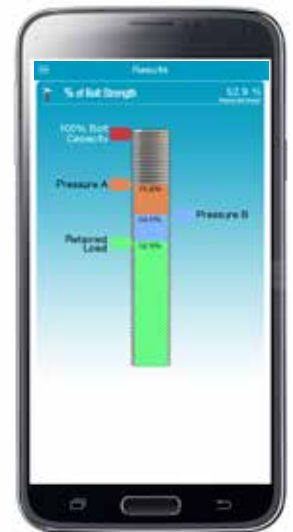
Tentec Part No.	Description	Ordering No.
HTT.18007.000A	Airbac Pump	4222260106
HTT.18008.000A	Retro -fit kit	4222260107



## Tentec BTS-Bolt Tightening Software & IOS/Android APP

Airbac's technical data has been built into our Bolt Tightening Software to complement our other standard tension and torque tightening products. The latest AMSE PCC-1 compliant version is now also available to install on IOS and Android platforms allowing users even easier access to critical calculations and bolt tightening procedures. The software includes data for the following standard flanges:

- ANSI B16.5
- ANSI B16.47 Series A
- MSS SP-44
- API 6A
- API 17SV
- Vector SPO Compact Flanges
- Norsok L-005



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