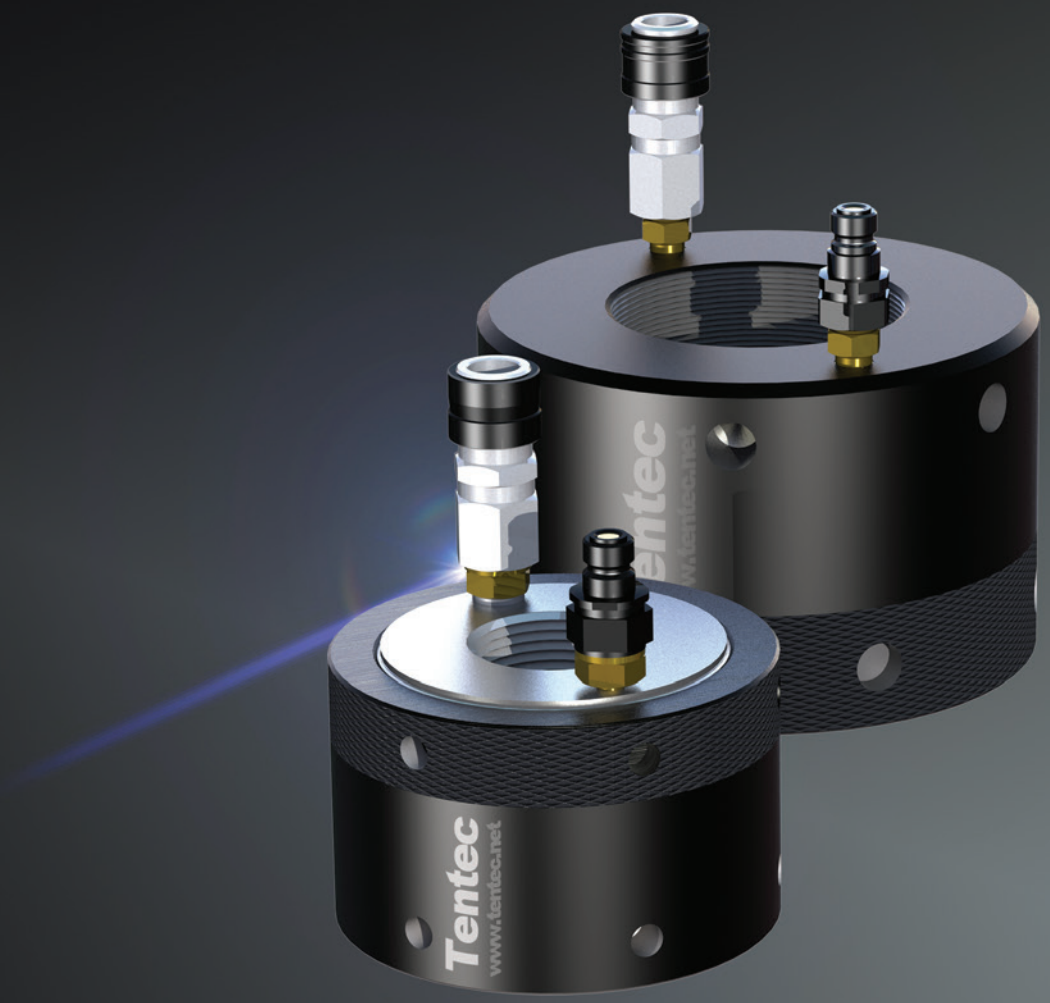
Custom Tensioners Available on Request.

Tentec®
www.tentec.net

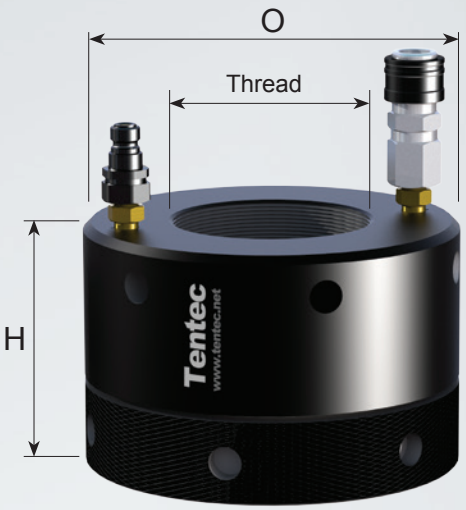
Hydraulic Nuts

Top Collar & Bottom Collar Type



Hydraulic Nuts - Bottom Collar

Hydraulic pressure is applied simultaneously to each Tentec Nut. All frictional factors connected with conventional bolt tightening methods are alleviated since Tentec Nuts apply a direct axial force to the bolt which generates a bolt elongation. This elongation/tension is permanently retained by means of the load retaining collar. Tentec Nuts have been designed to be as compact as possible, in order to allow adjacent fitment on as many applications as possible. In most cases they are designed to produce a residual bolt stress of 45000 lbs/In^2 (310N/mm^2) which is more than adequate for most bolted joint applications. As pressure is applied to the Tentec Nuts not only does the bolt elongate but also joint compression occurs. Since many applications incorporate some form of gasket, this joint compression can be substantial, in order to withstand this joint compression all Tentec Nuts are capable of considerable piston movement. This allows the Tentec Nuts, in most cases, the ability to tension a complete joint in only one pressurisation sequence, this can result in extremely high time savings.



Maximum Working Pressure
33000 psi : 2275 bar

If the standard Hydraulic Nuts are not suitable Tentec offer special designs on request.

Various Hydraulic Connection configurations are available.

Technical Specification

Part No	Thread	Thread	Part No	Bolt Load		O	H	Ram Stroke
Inch	Inches	Metric	Metric	kN	Tons	mm	mm	mm
BCHN:0875	**7/8**	**M22**	BCHN:0022	190	19.1	54	48	5
BCHN:1125	**1 1/8**	**M27**	BCHN:0027	220	22.1	60	48	5
BCHN:1250	**1 1/4**	**M33**	BCHN:0033	265	26.6	67	51	5
BCHN:1375	**1 3/8**	**M36**	BCHN:0036	325	32.6	73	54	6
BCHN:1500	**1 1/2**	**M39**	BCHN:0039	373	37.5	78	56	6
BCHN:1625	**1 5/8**	**M42**	BCHN:0042	424	42.6	83	58	6
BCHN:1750	**1 3/4**	**M45**	BCHN:0045	445	44.6	86	60	6
BCHN:1875	**1 7/8**	**M48**	BCHN:0048	523	52.5	93	70	8
BCHN:2000	**2**	**M52**	BCHN:0052	629	63.1	102	71	8
BCHN:2250	**2 1/4**	**M56**	BCHN:0056	781	78.3	112	75	8
BCHN:2500	**2 1/2**	**M64**	BCHN:0064	941	94.4	124	86	8
BCHN:2750	**2 3/4**	**M68**	BCHN:0068	1042	104.5	131	90	8
BCHN:3000	**3**	**M72**	BCHN:0072	1246	125.1	144	94	10
BCHN:3250	**3 1/4**	**M80**	BCHN:0080	1607	161.3	159	104	10
BCHN:3500	**3 1/2**	**M90**	BCHN:0090	2027	203.4	176	114	10
BCHN:3750	**3 3/4**	**M95**	BCHN:0095	2160	216.7	182	118	10
BCHN:4000	**4**	**M100**	BCHN:0100	2466	247.5	200	124	15
BCHN:4500	**4 1/2**	**M110**	BCHN:0110	2814	282.4	215	136	15
BCHN:5000	**5**	**M125**	BCHN:0125	3820	383.4	244	148	15
BCHN:5500	**5 1/2**	**M140**	BCHN:0140	4954	497.1	272	164	15
BCHN:6000	**6**	**M150**	BCHN:0150	5655	567.5	290	176	15

Custom Tensioners Available on Request.

Hydraulic Nuts - Top Collar

Top Collar Hydraulic Nuts feature the same benefits as the Bottom Collar type Hydraulic Nuts. The Top Collar derivative is ideally used where the nut is sunk into a pocket or spot face. The load retaining collar is situated at the top of the hydraulic nut allowing for easy access by the user.

Axial Bolt Load: Bolt load is applied axially to the bolts. consistencies such as friction, bending and lubricant are not a factor when using Hydraulic Nuts. No torsional stresses are involved.

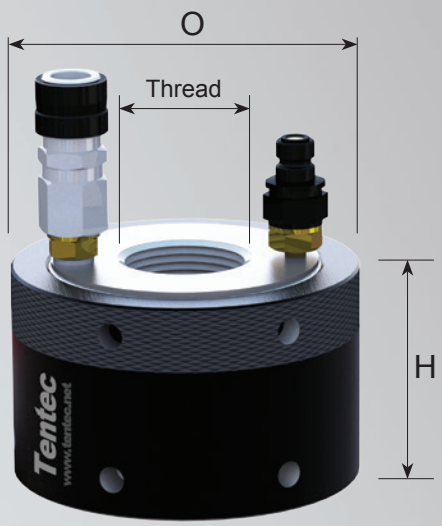
Rapid: Hydraulic Nuts offer an extremely rapid and simple method of simultaneously accuratley tensioning every bolt on a bolted joint.

Permanent: Hydraulic Nuts become a permanent part of the bolted joint and remain on the joint after after the bolt load has been generated.

Accurate: Bolt load is directly proportional to the pressure applied to the Hydraulic Nut.

Technical Specification

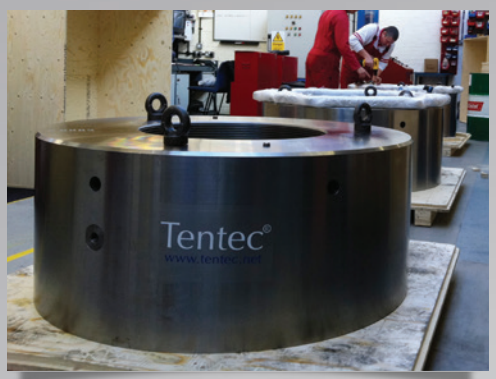
Part No	Thread	Thread	Part No	Load	Load	O	H	Ram Stroke
Inch	Inches	Metric	Metric	kN	Tons	mm	mm	mm
TCHN:0875	**7/8**	**M22**	TCHN:0022	190	19.1	54	40	5
TCHN:1000	**1**	**M24**	TCHN:0024	205	20.6	57	44	5
TCHN:1125	**1 1/8**	**M27**	TCHN:0027	220	22.1	60	46	5
TCHN:1250	**1 1/4**	**M33**	TCHN:0033	265	26.6	67	48	5
TCHN:1375	**1 3/8**	**M36**	TCHN:0036	325	32.6	73	52	6
TCHN:1500	**1 1/2**	**M39**	TCHN:0039	373	37.5	78	56	6
TCHN:1625	**1 5/8**	**M42**	TCHN:0042	424	42.6	83	58	6
TCHN:1750	**1 3/4**	**M45**	TCHN:0045	445	44.6	86	60	6
TCHN:1875	**1 7/8**	**M48**	TCHN:0048	523	52.5	93	64	8
TCHN:2000	**2**	**M52**	TCHN:0052	629	63.1	102	72	8
TCHN:2250	**2 1/4**	**M56**	TCHN:0056	781	78.3	112	75	8
TCHN:2500	**2 1/2**	**M64**	TCHN:0064	941	94.4	124	81	8
TCHN:2750	**2 3/4**	**M68**	TCHN:0068	1042	104.5	131	89	8
TCHN:3000	**3**	**M72**	TCHN:0072	1246	125.1	144	96	10
TCHN:3250	**3 1/4**	**M80**	TCHN:0080	1607	161.3	159	104	10
TCHN:3500	**3 1/2**	**M90**	TCHN:0090	2027	203.4	176	114	10
TCHN:3750	**3 3/4**	**M95**	TCHN:0095	2160	216.7	182	117	10
TCHN:4000	**4**	**M100**	TCHN:0100	2466	247.5	200	126	15
TCHN:4500	**4 1/2**	**M110**	TCHN:0110	2814	282.4	215	138	15
TCHN:5000	**5**	**M125**	TCHN:0125	3820	383.4	244	150	15
TCHN:5500	**5 1/2**	**M140**	TCHN:0140	4954	497.1	272	168	15
TCHN:6000	**6**	**M150**	TCHN:0150	5655	567.5	290	174	15

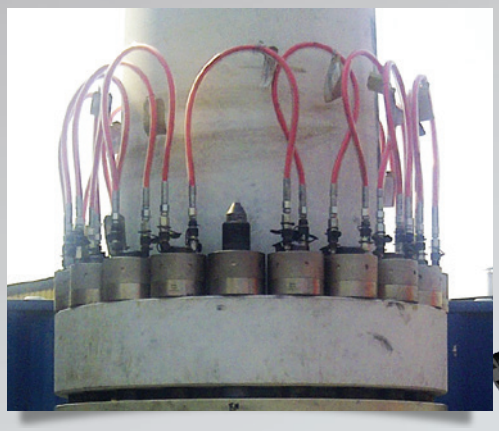


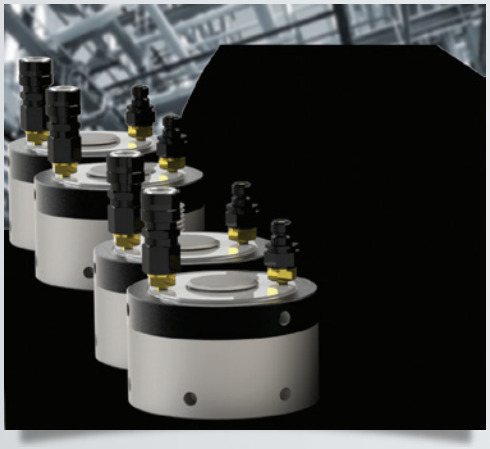
Maximum Working Pressure
33000 psi : 2275 bar

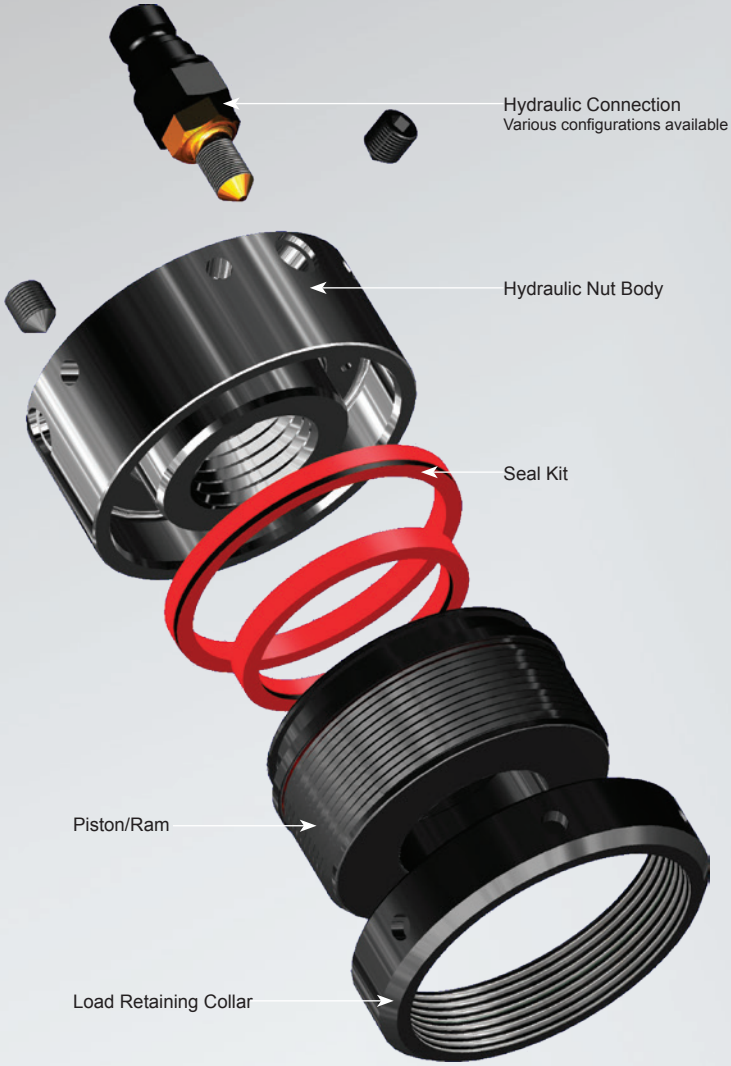
If the standard Hydraulic Nuts are not suitable Tentec offer special designs on request.

Various Hydraulic Connection configurations are available.









Tentec products are subject to continual development and we reserve the right to make changes in the specification and design of products without prior notice.

ISO 14001 BS OHSAS 18001 ISO 9001

Engineering Construction Industry Training Board

FPAL empowered by Achilles Registered

Tentec Limited
Plymouth House. Guns Lane
West Bromwich. West Midlands
United Kingdom. B70 9HS
Internet: www.tentec.net
email:sales@tentec.net
Telephone: +44(0)121 524 1990
Telefax: +44(0)121 525 1999

Document No: TDR:98R1