# Complete bolt tightening solution

- Torque Tools and Calibrators
- Flange and Pipe Equipments
- Jacks and Cylinder, Cutters, Crimpers
- Customised Design Solutions & Project Consultant







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**Technotorc - Power in Hand** 

Technotorc Tools Pvt Ltd, an innovative customer oriented company having operations near Mumbai, India and slowly creating it's footprints around the world. We can proudly say that we are the India's leading Innovative designer, manufacturer and supplier of bolting technology.

On the basis of our R&D expertise and the existing CNC production facilities with a state-of-art machine park, the company is able to meet almost all individual requirements and tasks of its customers. Company is engaged in manufacturing, marketing and exporting a wide range of industrial tools such as Hydraulic torque wrenches, High pressure pumps, Bolt tensioners, Torque Multipliers, Manual Torque wrenches, Flange equipments, Hydrotest pumps, Nut splitters, Flange spreaders, Toughlift jacking systems, Tube tools along with impact sockets and accessories etc.

In addition to supply of high quality products, Technotorc is your trusted partner in Services like bolting, piping, fabrication and erection. We offer 24x7 first class on-site service packages at an affordable price, including short and long term Technotorc tool rental agreements.

We understand customer's pain while struggling with leak/loose joints and targets. This may cost client bn dollar loss per hour. By understanding customer and service industry we came up with most comprehensive solutions and methodology which ensures flawless operations in first time.

We have dedicated highly trained, experienced and qualified team to provide world class product and services. We have significant stock of spares and after sales service facilities including service, repair, calibration and testing.

#### **Industries We serve**

- Refineries
- Power
- Wind
- Steel
- Railways
- Mines
- Automobile
- And many more...

#### Services we offer

- Onsite and offsite bolting services
- Cold Cutting
- Rental fleet such as Equipments, Engineers and skilled labors
- Fabrication (Erection and Commisioning)
- Tube cleaning and Repairs
- Maintenance
- Hydrotesting
- Design, Product development and Consulting
- Training and Certification



# Partner to Progress

TECHNOTORC Partner to Progress is a program initiated to support Entrepreneurs in the Sales & Service industry. We at TECHNOTORC welcome organizations from around the globe to PARTNER with us and as Pioneers, TECHNOTORC would lead the way for new Business opportunities.

Options available for becoming PARTNER's with TECHNOTORC...



#### Dealer - principal relationship :

TECHNOTORC introduces one of the conventional and globally accepted methods of Partnership, "Dealer – Principal Relationship." As TECHNOTORC is always welcoming new Partners from any and all parts of the world to join hands in Long Term relationship, "Dealer – Principal Relationship" is the ideal program.

- In this program the PARTNER receives a special discount structure.
- TECHNOTORC will assist in sales operations and Tender execution as and when necessary.
- The Dealership is exclusive to the region and our sales executive will assist in joint visits as a token of support.



TECHNOTORC is extensively involved in the Service Industry. "Technotorc Allocates, Aids and Advocates the Service Industry."

Equal cost & Revenue Share is a program that has the sole purpose of supporting the Entrepreneurs in the Service Industry. In the program Technotorc supplies and invests on tools & equipments. We provide an experienced Operation Manager & Sales Manager to execute and develop new prospects.

- In this Program Technotorc invests on the Rental fleet.
- Partner must provide space for safekeeping of the Tools & Manpower.
- Partner must provide VISA, Accomodation and work area for Technotorc operation Manager & Sales Manager.
- Also they must allocate Manpower for the Project and bear expenses for the same.



TECHNOTORC Joint Venture is a program that brings the Local organization and Technotorc together where both organization co-actively participate, become co-beneficiaries, and co-operate in executing the project.

This is a very transparent program where both partners are equally involved in the project. Here the Partners face a win-win situation with relation to cost & revenue sharing. Ideally when Technotorc Cost & Revenue partnership matures – it becomes Joint Ventures partnership.



# HYDRAULIC TORQUE WRENCH - SQUARE DRIVE TYPE (TSQ SERIES)



The TECHNOTORC, dedicated Square Drive Torque Wrench (TSQ) has been designed to offer optimum performance levels for both tightening and loosening nuts and bolts. Technotorc Hydraulic Torque wrenches are capable to achieve Maximum torque upto 70,000 Nm.

The robust and durable design has been manufactured to deliver extreme versatility and ease of operation and can be used in conjunction with standard impact sockets from  $\frac{3}{4}$ " to 2  $\frac{1}{2}$ " square drive. A range of direct hex drive adaptors are also available.



#### **Exclusive Features :**

#### Safety

Innovative design that completely encloses all moving parts and eliminates pinch points

#### **Powerful:**

Splined Square drive distributes load. evenly through the drive components. providing maximum transmission force.

#### **Easy Release :**

External release lever allows you to release tool pressure after torquing for easy removal

#### Accurate

All our Torque wrenches have an accuracy of ±3%, all tools are calibrated and certified on in-house test bench in our facility.

#### **Multi-Positioning Swivel**

360 x 180 degree swivel which prevents hose kinking and allows it to be used in highly confined areas. It is incorporated with safety pressure relief mechanism.

#### Light, Compact & Durable

Made up of special high strength extruded Aircraft Grade Titanium - Aluminum alloys designed to give maximum strength to weight and torque to weight ratios. All Internal parts made up of Ultra High tensile strength materials. Minimum nose radius for trouble-free tool fit.

#### **Balanced Design**

Piston stroke design to minimize unbalanced forces on cylinder wall which results in less wear and longer tool life.

#### Warranty

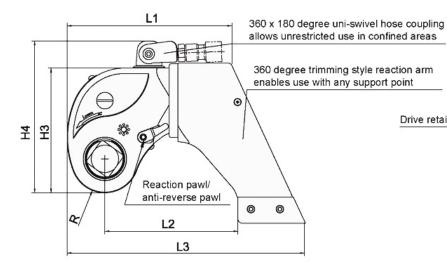
Technotorc provides 2 years\* warranty on TSQ series torque wrenches.

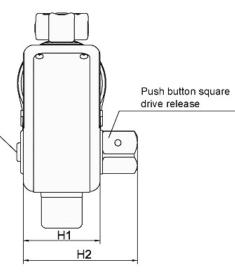
#### Made in India

Designed, Manufactured and assembled in INDIA with highest level of material and quality control.



# **TECHNICAL & DIMENSIONAL DATA**





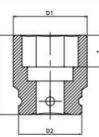
MODEL NO.	<b>TSQ - 02</b>	<b>TSQ - 05</b>	TSQ - 08	TSQ - 10	TSQ - 15	TSQ - 20	<b>TSQ - 25</b>	<b>TSQ - 3</b> 5	<b>TSQ - 50</b>	TSQ - 70
Square Drive	3/4"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Min. Torque ft-lbs (Nm)	121	320	548	749	1,114	1,432	1,848	2,442	3,499	5,111
wini. Torque n-ibs (wini)	(164)	(433)	(742)	(1015)	(1,509)	(1,940)	(2504)	(3,309)	(4,741)	(6,925)
Max. Torque ft-lbs (Nm)	1,299	3,197	5,476	7,697	11,137	14,324	19,518	25,554	34,992	51,105
Max. Torque It-Ibs (MIII)	(1,760)	(4,332)	(7,420)	(10430)	(15,090)	(19,409)	(26,447)	(34,626)	(47,414)	(69,247)
Output Accuracy	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%
Repeatability	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duty Cycle	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Tool Weight Lbs (Kg)	4.7(2)	9(4)	16(7)	23.5(10.6)	29(12.9)	44(20)	55(25)	75(33.8)	94(43)	115(52)
L1 Inches (mm)	5.12(130)	6.70(170)	7.95(202)	0.90(228)	9.33(237)	10.75(273)	11.30(287)	12.72(323)	13.82(351)	14.80(376)
L2 Inches (mm)	4.02(102)	5.51(140)	6.30(160)	7.24(184)	7.56(192)	8.78(223)	9.76(248)	10.08(256)	10.67(271)	11.61(295)
L3 Inches (mm)	7.17(182)	9.80(249)	11.26(286)	12.83(326)	13.23(336)	15.39(391)	17.05(433)	18.27(464)	19.45(494)	20.79(528)
H1 Inches (mm)	2.05(52)	2.76(70)	3.19(81)	3.54(90)	3.94(100)	4.33(110)	4.72(120)	5.43(138)	6.02(153)	6.38(162)
H2 Inches (mm)	3.03(77)	3.86(98)	4.92(125)	5.28(134)	5.67(144)	6.46(164)	7.36(187)	8.11(206)	8.54(217)	8.90(226)
H3 Inches (mm)	3.78(96)	5(127)	5.87(149)	6.77(172)	7.13(181)	8.11(206)	8.70(221)	10.16(258)	10.98(279)	11.46(291)
H4 Inches (mm)	5.24(133)	6.5(165)	7.24(184)	8.15(207)	8.50(216)	9.49(241)	10.08(256)	9.09(231)	12.40(315)	12.83(326)
R Inches (mm)	1.02(25.8)	1.37(34.8)	1.57(39.8)	1.84(46.8)	2(50.8)	2.24(56.8)	2.35(59.8)	2.79(70.8)	3.02(76.8)	3.10(78.8)

Drive retainer

# **HEAVY DUTY IMPACT SOCKETS**



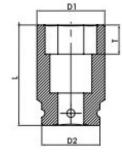




#### Standard Socket







Deep Socket

Mardal M	Square	Nut A/	F	D4	Do	6	-		N/1 - 1 - 1 N	Square	Nu	t A/F	D.4	DO	<u> </u>	-	
Model No.	Drive	inch	mm	D1	D2	S	т	L	Model No.	Drive	inch	mm	D1	D2	S	т	L
TI424	3/4"	-	24	40	44	46	21	90	TI5100	1"	-	100	135	86	112	62	143
TI427	3/4"	-	27	41	44	48	23	90	TI636	1.1/2"	-	36	64	86	80	28	130
TI427F	3/4"	1.1/16	-	41	44	48	23	90	TI641	1.1/2"	-	41	69	86	83	32	130
TI430	3/4"	-	30	44	44	52	24	90	TI646	1.1/2"	-	46	76	86	86	36	130
TI431F	3/4"	1.1/4	-	49	44	52	24	90	TI646F	1.1/2"	1.13/16	-	76	86	86	36	130
TI432	3/4"	-	32	49	44	52	26	90	TI650	1.1/2"	-	50	81	86	90	39	130
TI436	3/4"	-	36	52	44	55	28	90	TI651F	1.1/2"	2		81	86	90	39	130
TI436F	3/4"	1.7/16	-	52	44	56	28	90	TI655	1.1/2"	-	55	88	86	95	41	140
TI441	3/4"	-	41	57	44	59	36	90	TI655F	1.1/2"	2.3/16	-	88	86	95	41	140
TI441F	3/4"	1.5/8	-	57	44	59	36	90	TI660	1.1/2"	-	60	96	86	98	45	140
TI446	3/4"	-	46	67	44	64	37	90	TI660F	1.1/2"	2.3/8	-	96	86	98	45	140
TI446F	3/4"	1.13/16	-	67	44	64	36	90	TI665	1.1/2"	-	65	102	86	102	46	140
TI450	3/4"	-	50	70	54	67	39	90	TI665F	1.1/2"	2.9/16	-	102	86	102	46	140
TI451F	3/4"	2	-	73	54	67	39	90	TI670	1.1/2"	-	70	102	86	102	50	150
TI455	3/4"	-	55	78	54	71	41	94	TI670F	1.1/2"	2.3/4	-	108	86	102	50	150
TI455F	3/4"	2.3/16	-	78	54	71	41	94	TI675	1.1/2"	-	75	116	86	102	57	150
TI460	3/4"	-	- 60	82	52	75	45	98	TI675F	1.1/2"	2.15/16		116	86	108	57	150
TI460F	3/4"	- 2.3/8		82	52	75	45	98	TI680	1.1/2"	2.15/10	- 80	120	86	110	62	150
TI524		2.3/0	-						TI680F		-						
	1"	-	24	42	54	55	21	100		1.1/2"	3.1/8	-	120	86	110	62	150
TI527	1"	-	27	46	54	55	23	100	TI685	1.1/2"	-	85	130	86	115	62	170
TI527F	1"	1.1/16	-	46	54	55	23	100	TI690	1.1/2"	-	90	135	125	118	65	170
TI530	1"	-	30	50	54	57	24	100	TI690F	1.1/2"	3.1/2	-	135	125	118	65	170
TI531F	1"	1.1/4	-	51	54	57	24	100	TI695	1.1/2"	-	95	140	125	123	70	170
TI532	1"	-	32	51	54	57	26	100	TI6100	1.1/2"	-	100	148	125	128	75	190
TI536	1"	-	36	54	54	60	28	100	TI6100F	1.1/2"	3.7/8	-	148	125	128	75	190
TI536F	1"	1.7/16	-	54	54	60	28	100	TI6105	1.1/2"	-	105	155	125	133	80	190
TI541	1"	-	41	63	54	64	36	100	TI6106F	1.1/2"	4.1/4	-	155	125	133	80	190
TI541F	1"	1.5/8	-	63	54	64	36	100	TI6110	1.1/2"	-	110	161	150	138	85	200
TI546	1"	-	46	70	54	69	36	100	TI6115	1.1/2"	-	115	161	150	143	94	200
TI546F	1"	1.13/16	-	70	54	69	36	100	TI6120F	1.1/2"	4.5/8	-	175	150	149	94	200
TI550	1"	-	50	73	54	72	36	100	TI780	2.1/2"	-	80	135	125	140	62	190
TI551F	1"	2	-	73	54	72	39	100	TI780F	2.1/2"	3.1/8	-	135	125	140	62	190
TI555	1"	-	55	82	54	76	41	105	TI785	2.1/2"	-	85	140	125	140	62	190
TI555F	1"	2.3/16	-	82	54	80	41	105	TI790	2.1/2"	-	90	145	125	140	65	190
TI560	1"	-	60	86	54	82	45	112	TI795	2.1/2"	-	95	155	125	150	70	190
TI560F	1"	2.3/8	-	88	54	85	45	112	TI796F	2.1/2"	3.7/8	-	155	125	150	70	190
TI565	1"	-	65	92	54	85	46	118	TI7100	2.1/2"	-	100	160	125	150	75	200
TI565F	1"	2.9/16	-	92	54	85	46	118	TI7105	2.1/2"	-	105	165	125	160	80	200
TI570	1"	-	70	96	54	88	50	124	TI7110	2.1/2"	-	110	174	150	160	85	210
TI570F	1"	2.3/4	-	96	54	88	50	124	TI7115	2.1/2"	-	115	180	150	170	90	210
TI575	1"	-	75	100	86	92	57	124	TI7115F	2.1/2"	4.1/2	-	180	150	170	90	210
TI575F	1"	2.15/16		100	86	92	57	124	TI7125F	2.1/2"	5	-	195	150	175	98	220
TI579F	1"	3.1/8"		105	86	97	57	132	TI7130	2.1/2"	-	130	195	150	175	98	220
TI580	1"	-	80	105	86	97	62	132	TI7135F	2.1/2"	5.3/8	-	205	150	180	102	220
TI585	1"	-	85	115	86	100	62	132	TI7145	2.1/2"	-	145	220	150	180	105	230
TI588F	1"	3.1/2"	-	121	86	104	62	140	TI7145F	2.1/2"	5.3/4	-	220	150	180	105	230
TI590	1"	-	- 90	127	86	104	62	140	TI7155F	2.1/2	6.1/8	-	230	180	190	110	250
	1"		90 95	135	86	104	62	140	TI7165F	2.1/2	6.1/2		230	180	200	120	250
TI595		-	30	130	00	100	02	140	11/100	2.1/2	U. I/Z	-	240	100	200	120	-

3

# HYDRAULIC TORQUE WRENCH - HEX DRIVE TYPE (THX SERIES)



TECHNOTORC THX Series limited clearance Direct HEX drive Hydraulic Torque Wrenches are designed for extreme low spaces where normal tools cannot reach; Technotorc tools have much better accessibility. THX series can produce torque upto 45,000 Nm. All models have a very small nose radius which allows the tool to fit in those areas where space constraint is observed. The cylinder and the ratchet link can be connected by a insertion of a single pin. For Ratchet Heads various sizes of Hex reducers are available.



Limited clearance torque wrench (THX)

#### **Exclusive Features :**

#### Safety

Innovative design that completely encloses all moving parts and eliminates pinch points

#### Powerful

External release lever allows you to release tool pressure after torquing for easy removal. Secondary pawl allows to make powerful break through

#### Accurate

All our Torque wrenches have an accuracy of ±3%, all tools are calibrated and certified on in-house test bench in our facility.

#### Versatile

Quick and easy Interchangeable head design. Wide range of hex sizes available for all applications.

#### **Auto Lock**

Auto engagement of Piston rod in first stroke.

#### **Multi-Positioning Swivel**

360 x 180 degree swivel which prevents hose kinking and allows it to be used in highly confined areas. It is incorporated with safety pressure relief mechanism.

#### Light, Compact & Durable

Power Head made up of special high strength extruded Aircraft Grade Titanium - Aluminum alloys designed to give maximum strength to weight and torque to weight ratios. Minimum nose radius for trouble-free tool fit.

#### **Balanced Design**

Piston stroke design to minimize unbalanced forces on cylinder wall which results in less wear and longer tool life.

#### Warranty

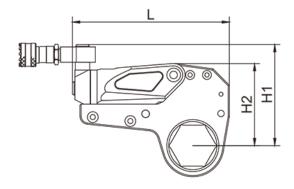
Technotorc provides 2 years\* warranty on THX series torque wrenches.

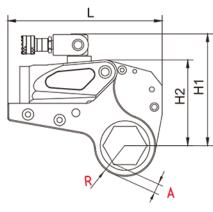
#### Made in India

Designed, Manufactured and assembled in INDIA with highest level of material and quality control.



# **TECHNICAL & DIMENSIONAL DATA**







MODEL NO.	THX-2	THX-5	THX-10	THX-20	THX-25	THX-40
	180	361	751	1,273	1,658	2,997
Min. Torque ft-lbs (Nm)	(244)	(489)	(1,017)	(1,724)	(2,247)	(4,064)
May Targue (t lbs (Nm)	1,870	3,979	7,714	13,233	16,900	29,974
Max. Torque ft-lbs (Nm)	(2534)	(5,392)	(10452)	(17,926)	(22,899)	(40,639)
Output Accuracy	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%	+/- 3%
Repeatability	100%	100%	100%	100%	100%	100%
Duty Cycle	100%	100%	100%	100%	100%	100%
Tool Weight Lbs (Kg)	5(2.2)	11(5)	21.2(9.6)	37.5(16.9)	50.7(22.9)	83.1(38)
L Inches (mm)	8.07(205)	9.89(251.3)	11.91(302.5)	14.45(367)	15.77(400.5)	18.01(457.
L1 Inches (mm)	5.79(147)	7.40(188)	9.17(233)	11.14(283)	12.12(308)	14.33(364
H1 Inches (mm)	5.08(129)	6.42(163)	7.52(191)	8.78(223)	9.68(246)	11.10(282
H2 Inches (mm)	3.94(100)	5.35(136)	6.55(166.5)	7.79(198)	8.82(224)	10.43(265
W1 Inches (mm)	1.26(32)	1.61(41)	2.09(53)	2.52(64)	2.75(70)	3.31(84)
W2 Inches (mm)	1.97(50)	2.60(66)	3.27(83)	3.90(99)	4.33(110)	5.20(132)
R Inches (mm)	1.63(41.3)	2.12(53.8)	2.71(68.8)	3.36(85.3)	3.89(98.8)	4.56(115.8
Common Hex Size Inches (mm)	1 1/16"-2" (27-50)	1 1/16"-2 9/16" (27-65)	2"-3 5/8" (50-90)	3 5/16"- 4 9/16" (85-115)	3 5/8"-5 5/16" (95-135)	3 15/16"-6 1 (100-155)

# HYDRAULIC TORQUE WRENCH - HEX DRIVE TYPE (THX SERIES)



## **HEXAGON CASSETTE LINKS**

THX- 2	HEX S	IZE	THX-5	HEX S	IZE	THX-10	HEX S	SIZE	THX-20/25	HEX S	IZE	THX-40	HEX S	IZE
Link	Imperial	Metric	Link	Imperial	Metric	Link	Imperial	Metric	Link	Imperial	Metric	Link	Imperial	Metric
HX-2-19	3/4"	19mm	HX-5-25	1"		HX-10-41	1-5/8"	41mm	HX-20/25-50	-	50mm	HX-40-108	4-1/4"	-
HX-2-20	13/16"	-	HX-5-27	1.1/16"	27mm	HX-10-42	1-11/16"	-	HX-20/25-51	2"	-	HX-40-109	4-5/16"	-
HX-2-21	-	21mm	HX-5-28	1.1/8"		HX-10-44	1-3/4"	-	HX-20/25-52	2-1/16"	-	HX-40-110	-	110mm
HX-2-22	7/8"	22mm	HX-5-30	1.3/16"	30mm	HX-10-46	1-13/16"	46mm	HX-20/25-53	2-1/8"	-	HX-40-111	4-3/8"	-
HX-2-23	15/16"	-	HX-5-31	1.1/4"		HX-10-47	1-7/8"	-	HX-20/25-55	2-3/16"	55mm	HX-40-112	4-7/16"	-
HX-2-24	-	24mm	HX-5-32	-	32mm	HX-10-49	1-15/16"	49mm	HX-20/25-57	2-1/4"	-	HX-40-114	4-1/2"	-
HX-2-25	1"	-	HX-5-33	1-5/16"	-	HX-10-50	-	50mm	HX-20/25-58	2-5/16"	-	HX-40-115	-	115mm
HX-2-27	1.1/16"	27mm	HX-5-34	-	34mm	HX-10-51	2"	-	HX-20/25-60	2-3/8"	60mm	HX-40-116	4-9/16"	-
HX-2-28	1.1/8"	-	HX-5-35	1-3/8"		HX-10-52	2-1/16"	-	HX-20/25-62	2-7/16"		HX-40-117	4-5/8"	117mm
HX-2-30	1.13/16"	30mm	HX-5-36	-	36mm	HX-10-54	2-1/8"	-	HX-20/25-63	2-1/2"	-	HX-40-119	4-11/16"	-
HX-2-31	1.1/4"	-	HX-5-37	1-7/16"		HX-10-55	2-3/16"	55mm	HX-20/25-65	2-9/16"	65mm	HX-40-120	-	120mm
HX-2-32	-	32mm	HX-5-38	1-1/2"	38mm	HX-10-57	2-1/4"	-	HX-20/25-66	2-5/8"	-	HX-40-121	4-3/4"	
HX-2-33	1.5/16"	-	HX-5-39	1-9/16"	-	HX-10-58	2-5/16"	-	HX-20/25-68	2-11/16"		HX-40-122	4-13/16"	
HX-2-34	-	34mm	HX-5-41	1-5/8"	41mm	HX-10-60	2-3/8"	60mm	HX-20/25-70	2-3/4"	70mm	HX-40-123	4-7/8"	
HX-2-35	1.3/8"	35mm	HX-5-42	1-11/16"	-	HX-10-61	2-7/16"	-	HX-20/25-71	2-13/16"	-	HX-40-125	-	125mm
HX-2-36		36mm	HX-5-44	1-3/4"		HX-10-63	2-1/2"		HX-20/25-71	2-7/8"	-	HX-40-125	4-15/16"	12311111
HX-2-30	- 1.7/16"		HX-5-46			HX-10-65	2-1/2	-	HX-20/25-75			HX-40-120	5"	- 127mm
		-		1-13/16"	46mm			65mm		2-15/16" 3"	75mm	HX-40-127		127mm
HX-2-38	1.1/2"	38mm	HX-5-47	1-7/8"	-	HX-10-66	2-5/8"	-	HX-20/25-76		-		5-1/16"	-
HX-2-39	1.9/16"	-	HX-5-49	1-15/16"	49mm	HX-10-68	2-11/16"	-	HX-20/25-77	3-1/16"	-	HX-40-130	5-1/8"	-
HX-2-41	1.5/8"	41mm	HX-5-50	-	50mm	HX-10-70	2-3/4"	70mm	HX-20/25-79	3-1/8"	-	HX-40-131	5-3/16"	-
HX-2-42	1.11/16"	-	HX-5-51	2"	-	HX-10-71	2-13/16"	-	HX-20/25-80	-	80mm	HX-40-133	5-1/4"	-
HX-2-44	1.3/4"	-	HX-5-52	2-1/16"	-	HX-10-73	2-7/8"	-	HX-20/25-81	3-3/16"	-	HX-40-134	5-5/16"	135mm
HX-2-46	1.13/16"	46mm	HX-5-53	2-1/8"	-	HX-10-75	2-15/16"	75mm	HX-20/25-82	3-1/4"	-	HX-40-136	5-3/8"	-
HX-2-47	1.7/8"	-	HX-5-55	2-3/16"	55mm	HX-10-76	3"	-	HX-20/25-84	3-5/16"	-	HX-40-138	5-7/16"	-
HX-2-49	1.15/16"	49mm	HX-5-57	2-1/4"	-	HX-10-77	3-1/16"	-	HX-20/25-85	-	85mm	HX-40-140	5-1/2"	140mm
HX-2-50	-	50mm	HX-5-58	2-5/16"	-	HX-10-79	3-1/8"	-	HX-20/25-86	3-3/8"	-	HX-40-141	5-9/16"	-
HX-2-51	2"	-	HX-5-60	2-3/8"	60mm	HX-10-80	-	80mm	HX-20/25-87	3-7/16"	-	HX-40-142	5-5/8"	-
HX-2-52	2.1/16"	-	HX-5-61	2-7/16"	-	HX-10-81	3-3/16"	-	HX-20/25-89	3-1/2"	-	HX-40-144	5-11/16"	-
HX-2-54	2.1/8"	-	HX-5-63	2-1/2"	-	HX-10-82	3-1/4"	-	HX-20/25-90	-	90mm	HX-40-145	-	145mm
HX-2-55	2.3/16"	55mm	HX-5-65	2-9/16"	65mm	HX-10-84	3-5/16"	-	HX-20/25-91	3-9/16"	-	HX-40-146	5-3/4"	-
HX-2-57	2.1/4"	-	HX-5-66	2-5/8"	-	HX-10-85	-	85mm	HX-20/25-92	3-5/8"	-	HX-40-147	5-13/16"	-
HX-2-59	2.5/16"	-	HX-5-68	2-11/16"	-	HX-10-86	3-3/8"	-	HX-20/25-93	3-11/16"	-	HX-40-149	5-7/8"	-
HX-2-60	2.3/8"	60mm	HX-5-70	2-3/4"	70mm	HX-10-87	3-7/16"	-	HX-20/25-95	3-3/4"	95mm	HX-40-150	-	150mm
HX-2-62	2.7/16"		HX-5-71	2-13/16"	-	HX-10-88	3-1/2"	-	HX-20/25-96	3-13/16"	-	HX-40-151	5-15/16"	-
HX-2-64	2.1/2"		HX-5-73	2-7/8"	-	HX-10-90	-	90mm	HX-20/25-98	3-7/8"	-	HX-40-152	6"	-
HX-2-65	2.9/16"	65mm	HX-5-75	2-15/16"	75mm	HX-10-91	3-9/16"	-	HX-20/25-100	3-15/16"	100mm	HX-40-153	6-1/16"	-
			HX-5-76	3"	-	HX-10-92	3-5/8"	-	HX-20/25-101	4"	-	HX-40-155	-	155mm
			HX-5-77	3-1/16"	-	HX-10-93	3-11/16"		HX-14-104	4-1/6"	-	HX-40-156	6-1/8"	-
			HX-5-79	3-1/8"		HX-10-95	3-3/4"	95mm	HX-20/25-105	4-1/8"	105mm	HX-40-157	6-3/16"	
			HX-5-80	-	80mm	HX-10-96	3-13/16"	-	HX-20/25-106	4-3/16"	-	HX-40-158	6-1/4"	-
						HX-10-98	3-7/8"		HX-20/25-107	4-1/4"		HX-40-160	-	160mm
						HX-10-100		100mm	HX-20/25-109	4-5/16"		HX-40-161	6-5/16"	_
						HX-10-101		-	HX-20/25-110	-	110mm	HX-40-162	6-3/8"	
						HX-10-103			HX-20/25-111	4-3/8"	-	HX-40-163	6-7/16"	-
						HX-10-105		- 105mm	HX-20/25-112	4-7/16"	-	HX-40-165	6-1/2"	- 165mm
						11/-10-103	<del>1</del> -1/0	10311111	HX-20/25-112 HX-20/25-114			HX-40-165	6-9/16"	10311111
										4-1/2"	- 115mm			
									HX-20/25-115	-	115mm	HX-40-168	6-5/8"	-
									HX-20/25-117	-	117mm	HX-40-170	6-11/16"	170mm
												HX-40-171	6-3/4"	-
												HX-40-173	6-13/16"	-
												HX-40-174	6-7/8"	-

HX-40-174 6-7/8" HX-40-175 -

175mm



# **HEXAGON REDUCERS (IMPERIAL SIZES)**

To reduce the female hexagon A/F size of the THX Series, Technotorc Hexagon Reducer Bushes offer an easy and economical solution. Just select your outside A/F size (i.e. Ratchet Head A/F size) and the required inside A/F size to determine the Model number.



		THX-2	THX-5	THX-10	THX-20/25	THX-40
Outside A/F size	Inside A/F size	Height-1.25"	Height-1.625″	Height-2.1″	Height-2.55″	Height-3.34″
		Model Number	Model Number	Model Number	Model Number	Model Number
1.1/4″	1.1/16″	HR-2-125-106	HR-5-125-106			
1.7/16″	1.1/16″	HR-2-143-106	HR-5-143-106			
1.7/16″	1.1/4″	HR-2-143-125	HR-5-143-125			
1.5/8″	1.1/4″	HR-2-162-125	HR-5-162-125			
1.5/8″	1.7/16″	HR-2-162-143	HR-5-162-143			
1.13/16"	1.7/16″	HR-2-181-143	HR-5-181-143			
1.13/16"	1.5/8″	HR-2-181-162	HR-5-181-162	HR-10-181-162		
2″	1.5/8″	HR-2-200-162	HR-5-200-162	HR-10-200-162		
2″	1.13/16"	HR-2-200-181	HR-5-200-181	HR-10-200-181		
2.3/16"	1.5/8″	HR-2-218-162	HR-5-218-162	HR-10-218-162		
2.3/16"	1.13/16"	HR-2-218-181	HR-5-218-181	HR-10-218-181		
2.3/16"	2″	HR-2-218-200	HR-5-218-200	HR-10-218-200		
2.3/8"	1.13/16″	HR-2-237-181	HR-5-237-181	HR-10-237-181		
2.3/8"	2″	HR-2-237-200	HR-5-237-200	HR-10-237-200	HR-20/25-237-200	
2.3/8"	2.3/16"	HR-2-237-218	HR-5-237-218	HR-10-237-218	HR-20/25-237-218	
2.9/16"	2″		HR-5-256-200	HR-10-256-200	HR-20/25-256-200	
2.9/16"	2.3/16″		HR-5-256-218	HR-10-256-218	HR-20/25-256-218	
2.9/16"	2.3/8″		HR-5-256-237	HR-10-256-237	HR-20/25-256-237	
2.3/4"	2.3/16"		HR-5-275-218	HR-10-275-218	HR-20/25-275-218	
2.3/4″	2.3/8"		HR-5-275-237	HR-10-275-237	HR-20/25-275-237	
2.3/4"	2.9/16"		HR-5-275-256	HR-10-275-256	HR-20/25-275-256	
2.15/16"	2.3/8″		HR-5-293-237	HR-10-293-237	HR-20/25-293-237	
2.15/16"	2.9/16"		HR-5-293-256	HR-10-293-256	HR-20/25-293-256	
2.15/16"	2.3/4"		HR-5-293-275	HR-10-293-275	HR-20/25-293-275	
3.1/8″	2.9/16"		HR-5-312-256	HR-10-312-256	HR-20/25-312-256	
3.1/8″	2.3/4"		HR-5-312-275	HR-10-312-275	HR-20/25-312-275	
3.1/8"	2.15/16"		HR-5-312-293	HR-10-312-275	HR-20/25-312-293	
	2.15/16"		nn-3-312-293			
3.1/2" 3.1/2"	3.1/8"			HR-10-350-293 HR-10-350-312	HR-20/25-350-293 HR-20/25-350-312	
	3.1/8"					
3.7/8" 3.7/8"	3.1/8			HR-10-387-312 HR-10-387-350	HR-20/25-387-312 HR-20/25-387-350	
4.1/8"	3.1/2			HR-10-317-350	HR-20/25-412-350	
					HR-20/25-412-387	
4.1/8"	3.7/8"			HR-10-412-387	HH-20/20-412-307	
4.5/8"	3.7/8"					
4.5/8"	4.1/4"					HR-40-462-425
5″	4.1/4"					HR-40-500-425
5″	4.5/8"					HR-40-500-462
5.5/16"	4.5/8"					HR-40-531-462
5.5/16"	5″					HR-40-531-500
5.3/4"	5″					HR-40-575-500
5.3/4"	5.3/8"					HR-40-575-573
6.1/8"	5.3/8"					HR-40-612-573
6.1/8"	5.3/4"					HR-40-612-575
6.1/2"	5.3/4"					HR-40-650-575
6.1/2"	6.1/8"					HR-40-650-612
6.7/8″	6.1/8″					HR-40-687-612
6.7/8″	6.1/2"					HR-40-687-650
7.3/16″	6.1/2″					HR-40-718-650
7.3/16″	6.7/8 ″					HR-40-718-687
7.7/16″	6.7/8 ″					HR-40-744-687
7.7/16″	7.3/16″					HR-40-744-718
7.5/8″	6.7/8″					HR-40-762-687
7.5/8″	7.7/16″					HR-40-762-744
7.7/8″	7.7/16″					HR-40-787-744
7.7/8″	7.5/8″					HR-40-787-762



# HEXAGON REDUCERS (METRIC SIZES)

		THX-2	THX-5	THX-10	THX-20/25	THX-40
Outside A/F size	Inside A/F size	Height-32mm	Height-42mm	Height-54mm	Height-65mm	Height-85mm
		Model Number				
30	24	HR-2-30-24				
32	24	HR-2-32-24				
32	27	HR-2-32-27				
36	30	HR-2-36-30				
41	36	HR-2-41-36	HR-5-41-36			
46	36	HR-2-46-36	HR-5-46-36			
46	41	HR-2-46-41	HR-5-46-41	HR-10-46-41		
50	41	HR-2-50-41	HR-5-50-41	HR-10-50-41		
50	46	HR-2-50-46	HR-5-50-46	HR-10-50-46		
55	41	HR-2-55-41	HR-5-55-41	HR-10-55-41		
55	46	HR-2-55-46	HR-5-55-46	HR-10-55-46		
55	50	HR-2-55-50	HR-5-55-50	HR-10-55-50		
60	46	HR-2-60-46	HR-5-60-46	HR-10-60-46		
60	50		HR-5-60-50	HR-10-60-50	HR-20/25-60-50	
60	55		HR-5-60-55	HR-10-60-55	HR-20/25-60-55	
65	50		HR-5-65-50	HR-10-65-50	HR-20/25-65-50	
65	55		HR-5-65-55	HR-10-65-55	HR-20/25-65-55	
65	60		HR-5-65-60	HR-10-65-60	HR-20/25-65-60	
70	55		HR-5-70-55	HR-10-70-55	HR-20/25-70-55	
70	60		HR-5-70-60	HR-10-70-60	HR-20/25-70-60	
70	65		HR-5-70-65	HR-10-70-65	HR-20/25-70-65	
75	60		HR-5-75-60	HR-10-75-60	HR-20/25-75-60	
75	65		HR-5-75-65	HR-10-75-65	HR-20/25-75-65	
75	70		HR-5-75-70	HR-10-75-70	HR-20/25-75-70	
80	65		HR-5-80-65	HR-10-80-65	HR-20/25-80-65	
80	70		HR-5-80-70	HR-10-80-70	HR-20/25-80-70	
80	75		HR-5-80-70	HR-10-80-75	HR-20/25-80-75	
85	70			HR-10-85-70	HR-20/25-85-70	
85	75			HR-10-85-75	HR-20/25-85-75	
85	80			HR-10-85-80	HR-20/25-85-80	
90	75			HR-10-90-75	HR-20/25-90-75	
90	80			HR-10-90-80	HR-20/25-90-80	
90	85			HR-10-90-85	HR-20/25-90-85	
95	80			HR-10-95-80	HR-20/25-95-80	
95	85			HR-10-95-85	HR-20/25-95-85	
95	90			HR-10-95-90	HR-20/25-95-90	
100	85			HR-10-100-85	HR-20/25-100-85	
100	90			HR-10-100-90	HR-20/25-100-90	
100	95			HR-10-100-95	HR-20/25-100-95	
105	90			HR-10-105-90	HR-20/25-105-90	
105	95			HR-10-105-95	HR-20/25-105-95	
105	100			HR-10-105-100	HR-20/25-105-100	
110	95				HR-20/25-110-95	HR-40-110-95
110	100				HR-20/25-110-100	HR-40-110-100
110	105				HR-20/25-110-105	HR-40-110-105
115	100				HR-20/25-115-100	HR-40-115-100
115	105				HR-20/25-115-105	HR-40-115-105
115	110				HR-20/25-115-110	HR-40-115-110
135	110				.,	HR-40-135-110
135	115					HR-40-135-110
135	120					HR-40-135-130
145	110					HR-40-145-110
145	115					HR-40-145-115
145	130					HR-40-145-130
160	130					HR-40-160-130
160	145					HR-40-160-145
175	145					HR-40-175-145
175	160					HR-40-175-160

# **NON SPARKING TOOLS**

Technotorc Non-sparking tools and Non-magnetic hand tools are manufactured from special Aluminum-Bronze (AlBr) or Copper-Beryllium (CuBe) alloys for safe use in Ex zones and where hazardous, flammable or combustible vapors, liquids, dusts or residues may be present. This equipment covers a variety of non-sparking and non-magnetic tool needs, including non-sparking striking tools, non-magnetic tightening tools, and non-sparking cutting tools.

Aluminum Bronze and Copper Beryllium Non-sparking safety tools from Technotorc are specifically designed to eliminate the risk of sparks at sites where explosive atmospheres may be present. These nonmagnetic tools will provide you with the best possible quality and safety assurance.

We can also provide Copper-Titanium Non-Sparking and Non-Magnatic Hand tools on Request.

# Comparision of Handtools - Cu-Ti, Cu-Be, AL-Br

Characteristics of Hand Tools	Copper Titanium Hand Tools	Copper Beryllium Hand Tools	Aluminum Bronze Hand Tools
Strength	High	High	Low
Health Hazard	No Risk	High Risk	Low Risk
Durability	High	High	Very Low
Non-Magnetic	Yes	Yes	No
Price	High	Moderate	Less

#### **Applications Non-Sparking Tools**

#### **OIL and GAS**

- Petroleum Refining Liquefied Petroleum Gases (LPG) Oil & Natural Gas Drilling, Refining & Handling
- Petrochemicals Manufacturing and Handling Tankers & Tanker Trucks Flammable Materials Gas Plants
- Pipeline Construction & Maintenance. LPG and Petroleum Vessels

#### **CHEMICAL & PHARMA**

- Alcohol Manufacturing and Handling. Breweries & Distilleries. Chemical Manufacturing Fertilizer Plants
- Ink Industries Pharmaceutical API Manufacturing. Paint, Lacquer & Varnish Products. Glue Factories

#### **EXPLOSIVES**

- Ammunition Manufacturing and Storage
  Missile Assembly
  Solid Rocket Fuel Handling and Mixing
- Explosive Warehousing Nuclear Plants and Processing Synthetic Fiber Manufacturing
- Cleaning & Spraying Operations
  Explosives & Pyrotechnics
  Mining

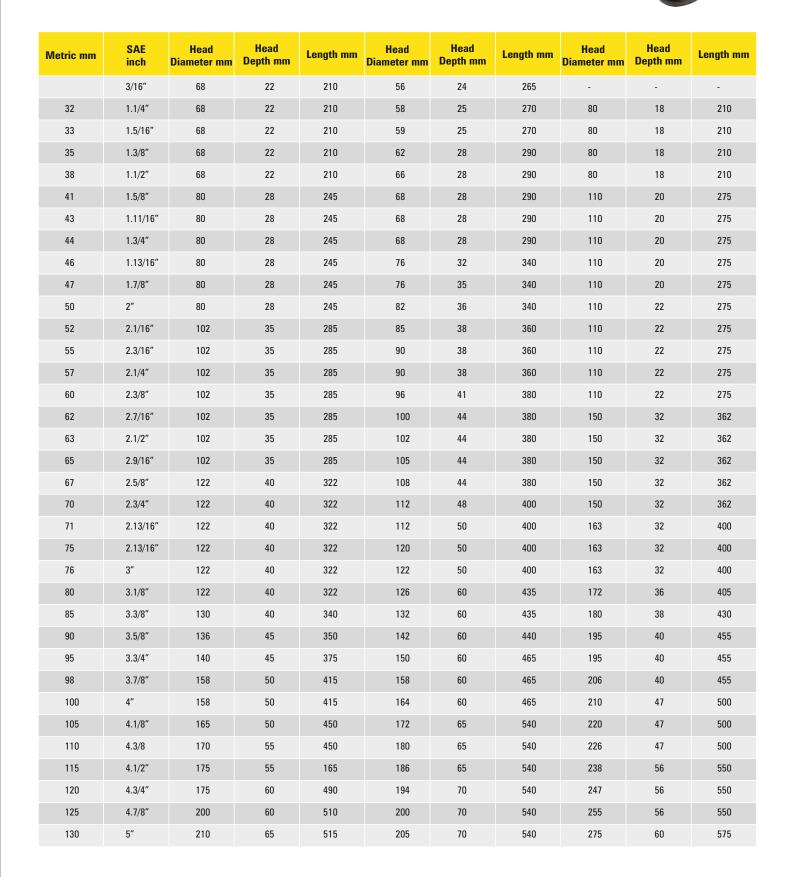
#### **OTHER INDUSTRIES**

- Paint Spraying, Finishing and Booth Operations Automotive Paint Booths MRI Machine Maintenanc
- Bomb Disposal Squads Railroads Shipyards Hazardous Materials Handling (HAZMAT)

# **SLUGGING WRENCHES**



- Straight Ring Type
- Offset Handle Type
- Open Jaw Type
- Podger / Tommy Spanners
- Box Ring Type
- Square Drive Type Slugging Wrenches





**Technotorc** 



#### **Features :**

- Technotorc Torquing Power pack Incorporated with German Technology which meets Highest Standards of Pump Design and gives you a Pump that is unmatched in Durability, Speed and Performance.
- Heat exchanger is standard included
- A quiet (<75 dBA), lightweight pump with a compact footprint easy to move around and through the work site
- Durable roll cage with an ergonomically sized handle and shielded gauge – a pump that is easy to put into position and safe from on site operational hazards
- Straightforward operation with a simple pressure set and convenient to use 6 m pendant control iimmediate productivity for crews operating the pump
- IP54 Rating for Superior Dust and Water Protection
- Transparent gauge overlays in Bar and Psi for all TECHNOTORC torque wrenches provide a quick torque reference
- Available in 110 V and 230 V versions.

#### Additional Features :

- 1) Remote control Pendant
- 2) Visual Temperature strips  $(60^{\circ} 90^{\circ})$
- 3) Visual Off Level Gauge
- 4) Safety Interlocks
- 5) Temperature Interlocks

#### **TECHNICAL SPECIFICATIONS OF TEP - 1000**

Main Voltage	AC	230 V, 50 Hz				
Motor Capacity	kW / A	1.10 / 7.20				
Normal Pressure	bar	700 Max.				
Oil Flow rate	Lt./min	9.7 LPM @ 70 bar				
UIT TOW Tale	Lt./ 1111	1 LPM @ 700 bar				
Oil Type	Grade	ISO VG 68				
Max Oil Temperature	С	60°				
Weight Without Oil	kg	38				
Protected Acc to	Std.	IP 54				
Tank Volume	Ltr.	6 Lit				

# AIR OPERATED POWERPACK FOR TORQUING (TPP-1000)



- Technotorc Torquing Power pack Incorporated with German Technology which meets Highest Standards of Pump Design and gives you a Pump that is unmatched in Durability, Speed and Performance.
- Substantial savings in energy and oil consumption.
- Analog or Digital pressure gauges assure the highest possible read out and adjustment precision.
- High speed/flow.
- Remotely operation forward and reverse.
- Light weight & compact design.
- Runs on 70 cfm / 90 PSI of air.

#### **Optional Accessories:**

- Optional Accessories:
- High pressure hose
- High pressure Qrc
- Digital Pressure Gauge
- Quadra / Multi Port Manifold (Max. 4 Ports).



**Technotorc** 

	TECHNICAL DETAILS - MODEL TPP-1000	
Require maximum Air pressure	Bar	7
Air consumption at 7 bar	lt/min.	2300
Sound pressure level	Db	76
Nominal Pressure	bar	700 Max.
Flow		
1st Stage	lt/min.	8 @ 70 bar
2st Stage	lt/min.	0.98 @ 700 bar
Usable Volume	litre	4
Oil Type	Grade	ISO VG-68
Ambient Temperature	C	45 °
Max Oil Temperature	С	60 °
Weight	kg	28

#### **Additional Features :**

- 1) Pneumatic control pendent
- 2) Visual Temperature strips  $(60^{\circ} 90^{\circ})$
- 3) Visual Off Level Gauge
- 4) Safety valve
- 5) Breather (Also for oil filling)

#### **ATEX CERTIFIED POWERPACK – ELECTRIC/PNEUMATIC**



- The TFP-HTW pump is the most used pump for torque operations and provide the power for your torque.
- The hydraulic pump is available in electric or pneumatic version, with different 2-Stage delivery.
- The transport cage guarantee all around protection and easy handling.
- For this model are available different accessories: the heater exchanger, the quad block, the automatic cycle, quick couplers and twin hoses.
- This pump model can moreover be totally personalized:
- ATEX
- hour counter
- different cages
- timer
- multiple switches
- different tanks
- different tension and frequency

#### **Features:**

Hydraulic Pump With Three-phase Electric Motor ATEX Certified Version Ce Ex Ii 2 G K T3 ATEX Zone-2 Class T3 Gas Group IIA

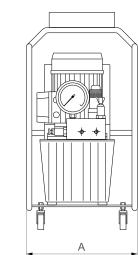
	OPTIONS
SC	EXCHANGER
Q	QUAD BLOCK
AC	AUTO CYCLING
Т	TIMER
HC	COUNTER HOUR

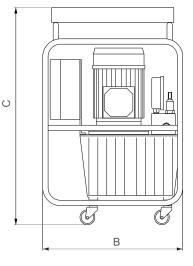


ELECTRIC



PNEUMATIC





MODEL	PRESSURE 1/2 STAGE	OIL FLOW	MOTOR	<b>Voltage /</b> Frequency	POWER/ RPM	TANK Capacity		DIMENSION		WEIGHT
	bar	l/min			kW/rpm	Ltr.	А	В	С	kg
TFP-1P	80/700	7,2/0,9	SINGLE-PHASE	230V-50Hz	1,5/2850	10	350	460	610	38
TFP-3P	80/700	7,2/0,9	THREE-PHASE	400V-50Hz	1,1/2850	10	350	460	610	37
TFP-AIR	80/700	7,9/0,9	PNEUMATIC	-	1,3/3000	10	350	460	610	33

# **ELECTRIC SHEAR WRENCH (ESW)**



Technotorc Light Weight and Compact Shear Wrenches provides consistent, reliable Torque Tightening and Shearing to the tension Control Bolts.

Tension control bolts are the most popular structural fasteners. Sometimes called twist-off or Lejeune bolts, they are designed with a spline that shears off when it reaches the proper level of tension. Using our Shear Wrenches, you can install tension control bolts simply and economically. Your overall productivity goes up because it's not necessary to calibrate the tool, you save money by streamlining this time consuming process without losing any of the accuracy you need for structural integrity.

Technotorc Electric Shear Wrenches are capable of achieving Controllable Torque Range of 5000 Nm with supported Bolt Sizes upto M36.

All Shear Wrenches are Calibrated and Certified at our in-house test bench facility.

#### Shear Wrenches are:

- Used for one sided installation
- Quiet, non-impacting operation
- No air compressor necessary
- No tool calibration necessary
- Low maintenance
- Lightweight, with electric or manual operation





MODEL	Bolt Sizes (mm)	Torque (Nm)	Speed (Rpm)	Weight (Kg)
ESW-16	M12, M16	320	36	3.8
ESW-20	M12, M16, M20	540	24	6
ESW-22	M16, M20, M22	910	20	6.8
ESW-24	M20, M22, M24	1200	14	8
ESW-27	M22, M24, M27	1700	12	8.3
ESW-30	M24, M27, M30	2500	5	10.5
ESW-33	M27, M30, M33	3500	4.5	15
ESW-36	M30, M33, M36	5000	2.5	17

Technotorc introduces the all new ETW-Series Electric Torque Wrench; a simple fastening solution, which allows you to quickly, accurately and safely fasten critical joints. Electric Torque Wrenches are particularly well suited to complex jobs, which demand precision and traceability.

# ANALOG TYPE

Technotorc Analog Type Electric Torque Wrenches comes with Robust Design and Simple Controller which is ideal for onsite bolt Tightening Jobs.

Light weight

#### **Features**

Angular Body Design

Simple Controller

Low Cost



Type Items	ETW-03	ETW-06	ETW-10	ETW-15	ETW-25	ETW-35	ETW-50
Rated torques (N.m)	300	600	1000	1500	2500	3500	5000
Ranges (N.m)	100-300	250-600	300-1000	500-1500	800-2500	1700-3500	2500-5000
Accuracy	$\pm 5\%$	±5%	±5%	±5%	±5%	±5%	±5%
Rotational speed (r/min)	15	10	10	9	4	3	1.5
Rated voltages (v)	220	220	220	220	220	220	220
Rated power (w)	680	680	680	800	800	800	800
Distances from edge to centre	32.5	41	44.5	49	50	56	61
Main engine sizes (length×high×diameter)	352 x 65 x 180	470×139×8 2	340×268×8 9	296×273×9 8	385×274×1 00	400×279×1 11	363x285x12 2
Square Drive sizes	19×19	19×19	25×25	25 ×25	32×32	38×38	38×38
Socket sizes	24# 27#	32# 36#	36# 41#	36# 41#	46# 50#	70#	75#
weights (kg)	3.1	7.5	8	9	10.5	11.6	15
Controller Type	External Control	External Control	Embedded Control	Embedded Control	Embedded Control	Embedded Control	Embedded Control

# DIGITAL TYPE

TETW tools are operated using a interactive control panel, as well a control panel on the wrench. The control panel is simple to navigate, allowing fastening requirements to be input quickly and easily, while the impact resistant control panel on the back of the wrench gives the operator the freedom to control the wrench while on the application

#### **Features**

#### **Control Box**

The panel screen is housed in a flame and impact resistant control box, which stands up to the rigors of jobsite usage.

#### **Torque and Angle\***

Torque and angle functionality allows the input of nominal torque value followed by a specific angle of rotation.

#### **Automatic Mode**

An automatic mode helps simplify and automate complex jobs through the creation of automatic presets, which apply a desired sequence of torque steps to a desired number of fasteners.

#### **Controls on Wrench**

Controls on back of wrench with a bright LED display allow the user to directly input desired torque values, change direction of rotation, and monitor the fastening process.

#### **Data Output\***

Fastening records of completed jobs can be viewed on the touch screen, or exported to a computer via a USB connection on the control box.

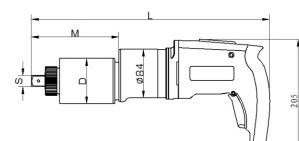
(\*Special function can be provided with customised option.)





Technotorc

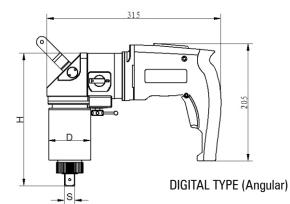
# ELECTRIC TORQUE WRENCH (ETW)



# DIGITAL TYPE (Straight)

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	····		

DIGITAL	. I YPE										
Model	Min (N.m)	Max (N.m)	S (mm)	D (mm)	L (mm)	M (mm)	Weight (Kg)	Gear 2 torque range (N.m)	Gear 1 torque range (N.m)	Gear 1 speed rpm	Gear 2 speed rpm
TETW-08S	100	800	3/4"	78	426	174		100~495	500~800	6.0	16.0
TETW-16S	200	1600	1"	78	452	200	7.7	200~790	800~1600	5.0	14.5
TETW-20S	200	2000	1"	78	452	200	7.7	200~890	900~2000	4.8	14.1
TETW-28S	400	2800	1"	88	485	233	10.3	400~1180	1200~2800	2.3	6.4
TETW-40S	700	4200	1 1/2 "	99	508	256	12.2	700~1875	1900~4200	1.6	4.2
TETW-50S	1000	5000	1 1/2 "	113	526	274	15.6	1000~2475	2500~5000	0.9	2.8
TETW-60S	1000	6000	1 1/2 "	113	526	274	15.6	1000~2475	2500~6000	0.9	2.8
TETW-80S	1200	8000	1 1/2 "	120	536	284		1200~2450	2500~8000	0.7	2.0
TETW-100S	2000	10000	1 1/2 "	128	569	317	21.8	2000~3450	3500~10000	0.6	1.5
TETW-120S	2000	12000	1 1/2 "	128	583	331	21.8	2000~3950	4000~12000	0.6	1.5





# DIGITAL TYPE

Model	Min (N.m)	Max (N.m)	S (mm)	D (mm)	H (mm)	Weight (Kg)	Gear 2 torque range (N.m)	Gear 1 torque range (N.m)	Gear 1 speed rpm	Gear 2 speed rpm
TETW-08A	100	800	3/4 "	78	269	6.6	100~495	500~800	6.0	16.0
TETW-16A	200	1600	1"	78	202	8.1	200~790	800~1600	5.0	14.5
TETW-20A	200	2000	1"	78	302	8.1	200~890	900~2000	4.8	14.1
TETW-28A	400	2800	1"	88	328	9.8	400~1180	1200~2800	2.3	6.4
TETW-40A	700	4200	1 1/2 "	99	351	11.4	700~1875	1900~4200	1.6	4.2
TETW-50A	1000	5000	1 1/2 "	113	369	16.5	1000~2475	2500~5000	0.9	2.8
TETW-60A	1000	6000	1 1/2 "	113	369	16.5	1000~2475	2500~6000	0.9	2.8
TETW-80A	1200	8000	1 1/2 "	120	379	18.4	1200~2450	2500~8000	0.7	2.0
TETW-100A	2000	10000	1 1/2 "	128	412	20	2000~3450	3500~10000	0.6	1.5
TETW-120A	2000	12000	1 1/2 "	128	426	20.1	2000~3950	4000~12000	0.6	1.5



**Technotorc** Power in Hand

TECHNOTORC Click type Torque Wrenches are of an innovation design concept, providing consistently accurate readings and rugged, (Trouble Free) Performance. Our Torque Wrenches have a proven performance record and we offer a Free Replacement Guarantee\* on our complete range of Torque Wrenches, against any premature failure.

#### We also offer Torque Wrenches of following types:

#### **Open Jaw Fixed Head Type**

These types of Torque Wrenches are available in standard Across Flat sizes from 10 mm to 46 mm with torque preset to one value as per bolt torque capacity or customer requirement. These torque wrenches can be used directly on bolt, there is no need of sockets.



#### **Bi-Hex Ring Type**

These types of Torque Wrenches are available in standard Across Flat sizes from 10 mm to 46 mm with torque preset to one value as per bolt torque capacity or customer requirement. These torque wrenches can be used directly on bolt, there is no need of sockets.



#### **Preset Torque Production Type**

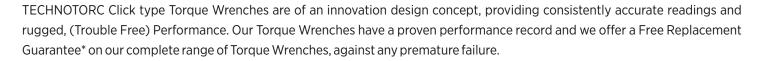
These types of Torques Wrenches are designed specifically for use on production lines where many fasteners are to be tightened to the same torques value. It improves working efficiency of workmen and the production works will complete.



#### Ultra Light Weight Aluminum alloy Torque Wrenches



Technotorc



We also offer Torque Wrenches of following types:

#### Features

- Material: Light weight high strength alloy body reduces its weight to half of the equivalent conventional Torque Wrenches.
- Compact Size: Compact in size with multiple extensions, ensures use at restricted places. Light Weight and Compact Packing makes handling and transportation easy.
- Torque Indication: Short path actuation of gears provide clear impulse and audible signal on reaching set torque values.
- Variable Extension: Extension bars can be adjusted to get different extension length as per the operator's requirement.
- Pin Locking: Pin Lock mechanism at Sq. Drive for positive safe locking.
- Graduation: Single Scale Graduation for clear reading, Standard scale graduation is in Nm but can be supplied in other scales as required on request.
- Longer Range: 140 Nm to 3000 Nm covered in just four models.
- Accuracy: Better than ± 3 with very high repeatability.
- Calibration: Calibration Traceable to National Standards.
- Ratcheting Action: Suitable Ratchet Adaptors available to convert to ratchet type Torque Wrench.
- Packing: Standard packing is in individual sturdy cardboard box. On request also available in metallic case.

	CLICK TYPE TORQUE WRENCH (MTW)										
МО	DEL		CAPA	OVERALL LENGTH, mm	UNIT WEIGHT, KG						
STANDARD	RATCHET	SQ.DR.	LB.FT.	NM	Kg.Mts.						
MTW-100 A	MTW-100 R	3/8″	28	2.5-11	0.3-1.1	320/360	0.56				
MTW-300 A	MTW-300 R	3/8″	425	535	05-3.5	430/465	0.75				
MTW-600 A	MTW-600 R	1/2″	1050	1268	1.2-7	485/530	1.1				
MTW-1200 A	MTW-1200 R	1/2″	2050	25-135	314	545/595	2				
MTW-2000 A	MTW-2000 R	1/2″	40 -160	50-225	523	610/660	2.49				
MTW-3000 A	MTW-3000 R	1/2″	50 -250	70-330	735	835/890	4				
MTW-5000 A	MTW-5000 R	3/4"	100 -410	140-560	14-57	1120/1195	6.58				
MTW-7200 A	MTW-7200 R	3/4"	140 -600	200-800	22-82	1300/1400	12.7				
MTW-8400 A	MTW-8400 R	1″	350 -700	480-940	49-95	1400/1485	14				
MTW-14	MTW-14/R	3/4"	100 -400	135-540	14-56	1120/1195	6.5				
MTW-14 S	MTW-14 S/R	3/4″	100 -500	135-750	14-78	1110/1195	7				
MTW-49	MTW-49/R	3/4"	350 -750	475-1050	49-105	1390/1480	15				
MTW-55	MTW-55/R	1″	400-1000	540-1380	55-140	1305/1340	18				
MTW-105	MTW-105/R	1″	750-1400	1000-1900	105-195	1305/1340	18				
MTW-170	MTW-170/R	1″	1000-2000	1350-2700	135-275	1450/1530	20.6				

#### **Technical specification :**

Technotorc

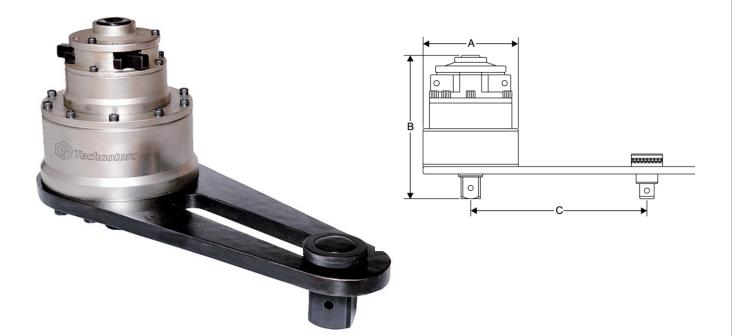


#### **HORIZONTAL TYPE**

Technotorc gearboxes are built to an extremely high standard of precision. All gears rotate on needle roller bearings about hardened and ground journal pins. As a result, Technotorc multiplier torques can be relied upon to have a torque multiplication accuracy of +/-5%, throughout the operating range, taking the uncertainty out of high torque tightening.

No gearbox is 100% efficient and so the velocity ratio (the number of turns that the input has to make to achieve one revolution of the output) is not the same as the torque multiplication ratio. Technotorc multipliers are engineered such that each gear stage has a velocity ratio of typically 5.45:1 which results in a true torque multiplication factor of 5:1. Torque output calculations are therefore a matter of simple arithmetic with little risk of incorrect bolt loading due to conversion errors. Other manufacturer's multipliers often require graphs or formulae to calculate the input torque to achieve a particular output.

Std products are available up to 47,500 N·m (35,000 lbf•ft) and 'specials' to 300,000 N·m (220,000 lbf•ft).



	TECHNOTORC HAND TORQUE MULTIPLIER												
Hand Torque Model	Maximum Output Torque			ted Bolt acity	Multiplication Factor	Female Input Square	Male Output Square	Major Dia	Height	Min	Max	Approx Wt. with Reaction Plate	
	Ft.lbs	Nm	Kgf.m	in	mm		in	mm	A(mm)	B(mm)	C(mm)	C(mm)	Kg
HTM-1	1250	1700	170	1.1/8	27	5	1/2	3/4	115	87	75	164	4.5
HTM-2	1250	1700	170	1.1/8	27	5	3/4	1	115	90	75	164	5
HTM-2/25 AWUR	1250	1700	170	1.1/8	27	25	1/2	1	115	120	75	164	7
HTM-5	2000	2700	275	1.3/8	36	5	3/4	1	136	135	89	260	11
HTM-5/25 AWUR	2000	2700	275	1.3/8	36	25	1/2	1	136	163	89	260	11
HTM-6	2500	3400	345	1.1/2	38	5	3/4	1.1/2	136	149	105	260	8.5
HTM-6/25 AWUR	2500	3400	345	1.1/2	38	25	1/2	1.1/2	136	176	105	260	11.5
HTM-7	4500	6000	622	1.7/8	48	5	3/4	1.1/2	168	174	115	310	18
HTM-7/25 AWUR	4500	6000	622	1.7/8	48	25	1/2	1.1/2	168	226	115	310	22
HTM-9/25 AWUR	7000	9500	965	2.1/4	56	25	3/4	1.1/2	195	256	150	350	33
HTM-9/125 AWUR	7000	9500	965	2.1/4	56	125	1/2	1.1/2	195	301	150	350	35.5
HTM-11/25 AWUR	11060	15000	1500	3.3/4	95	25	3/4	2.1/2	220	360	164	480	52
HTM-11/125 AWUR	11060	15000	1500	3.3/4	95	125	1/2	2.1/2	220	404	164	480	57
HTM-13/125 AWUR	35000	47500	4750	4.1/2	115	125	3/4	2.1/2	315	550	164	480	80

#### **VERTICAL TYPE**

#### **Features**

- Proven quality
- Suitable for all industrial requirements
- Easy to handle
- Minimal dimensions
- · Controlled tightening of bolts with a torque wrench
- Effortless loosening of bolts with only a small amount of force
- Not dependent on power or compressed air
- High-efficiency planetary gear sets achieve high output torque from low input torque
- Most models operator protected by anti-backlash device
- Multiplier output accuracy ± 5% of input torque
- Reversible, tighten or loosen bolts
- Reaction bar or reaction plate type
- Reaction plate models offer increased versatility with reaction point locations

#### **AWUR - Anti Wind up Ratchet**



	TECHNOTORC Vertical Torque Multiplier										
		Toruqe (	Capacity	Height	Diameter	Weight	Input Drive	Output Drive	Suitable fo	or Bolt Size	
Model No	Gear Ratio	Ft/lbs	Nm	mm	mm	Kgs	in	in	Bolt Size	A/F	
VTM-15	4.5:1	1000	1355	175	80	3	3/4	1	M16-M27	24-41	
VTM-25	12:1	1350	1630	310	80	5.2	3/4	1	M20-M30	30-46	
VTM-35	15:1	2125	2880	285	80	5.1	3/4	1	M20-M36	30-55	
VTM-40	15:1	2360	3200	245	95	6.1	3/4	1.1/2	M20-M39	30-60	
VTM-65	21:1	3660	4960	240	114	8.4	3/4	1.1/2	M27-M42	41-65	
VTM-90	40:1	5075	6880	300	172	21.5	3/4	1.1/2	M33-M48	50-75	



## **PNEUMATIC TORQUE WRENCHES (PTW)**



Technotorc introduces the all new PTW-Series Pneumatic Torque Wrenches. These tough and reliable tools are designed to provide fast, safe, and simple fastening for applications that require controlled bolting solutions.

The Pneumatic Torque Wrench tools are robust enough to withstand tough job site conditions, and are ideal for applications with a high volume of fastenings typically found in the mining, power generation and oil & gas industries. A full range of tools provide up to 13,500 Nm of torque.

#### **Advantages**

#### Productivity

- High speed continuous rotation for constant torque output
- Low friction planetary gearbox design minimizes wear and extends uptime
- Operating speeds far exceed those of hydraulic tools

#### Safety

- Ergonomic, low vibration design reduces fatigue and the risk of vibration related injuries
- Low noise air motor provides quiet, consistent performance for indoor and outdoor applications
- Controlled bolting helps ensure that critical applications are properly fastened, ultimately protecting against catastrophic damage and injury, which may result from uncontrolled fastening methods



#### Simplicity

- · Simple to operate trigger style handle with easily accessible tightening/loosening switch
- Torque gun prevents over-torqueing by stalling out at a pre-selected air input pressure

#### Convenience

- Available with or without Filter-Regulator-Lubricator (FRL)
- Provided with standard reaction arm; wide assortment of custom arms and accessories are available
- All pneumatic torque wrench tools are CE declared and are shipped complete with a calibration certificate
- Accessories

#### **Reaction Arms**

Access deep sockets and uniquely spaced bolts

- Standard Reaction Arm
- Straight Reaction Arm
- Extended Reaction Arm
- Double Straight Reaction Arm
- Blank Reaction Arm

#### **Sliding Reaction Arms**

Modify the reaction location to access bolts with variable pitches

• Adjustable from 10.2 cm to 30.5 cm (4" to 12") from center of spline

#### **Nose Extensions**

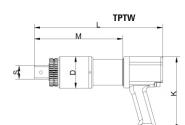
Access deep bolts • 15, 30 & 45cm (6", 12" & 18")

#### Filter Regulator Lubricator (FRL)

Recommended for use with all PTW pneumatic torque wrenches. Provides clean, lubricated air and allows for air pressure adjustment.

# PNEUMATIC TORQUE WRENCHES (PTW)







#### SINGLE SPEED

MODEL NO.	Min (N.m)	Max (N.m)	S (mm)	D (mm)	M (mm)	L (mm)	K (mm)	Weight (Kg)	Speed rpm
TPTW-04	130	450	3/4 "	74	167	297	195	5.3	40
TPTW -09	290	950	3/4 "	78	172	302	195	5.4	20.5
TPTW -16	480	1640	1 "	78	214	344	195	6.9	11.5
TPTW -20	490	2050	1 "	78	214	344	195	6.9	9.0
TPTW -30	810	3100	1 "	88	254	384	195	9.7	5.5
TPTW -40	1190	4300	1 1/2 "	99	254	384	195	9.7	3.8
TPTW -60	1100	6200	1 1/2 "	113	283	413	195	15.1	2.7
TPTW -80	1600	8000	1 1/2 "	120	292	422	195	16.8	1.9
TPTW -100	3700	10600	1 1/2 "	128	336	466	195	21.6	1.4
TPTW -120	3900	13500	1 1/2 "	128	336	466	195	21.6	1.1



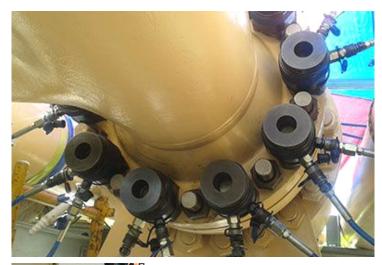
#### **TWO SPEED**

MODEL NO.      09S      15S      30S      40S      60S      80S      100S      120S        Square Drive (S)      3/4"      1"      1" & 1" & 11/2"      11/2"									
Min. Torque ft-lbs (Nm)      105      148      369      443      591      694      1,181      1,181        (142)      (200)      (500)      (600)      (800)      (940)      (1,600)      (1,	MODEL NO.								TPTW- 120S
Min. Torque ft-lbs (Nm)      (142)      (200)      (500)      (600)      (800)      (940)      (1,600)      (1,600)        Max. Torque ft-lbs (Nm)      693      1,144      2,288      3,174      4,577      6,127      7,456      9,006        (939)      (1,550)      (3,100)      (4,300)      (62,00)      (8,300)      (10,100)      (12,200)        Output Accuracy      +/- 5%      100%      100%      100%      100%      100%	Square Drive (S)	3/4"	1"	1"	1" & 1 1/2"	1 1/2″	1 1/2″	1 1/2"	1 1/2"
Image: Mark and the second s	Min Torque (t lbc (Nm)	105	148	369	443	591	694	1,181	1,181
Max. Torque ft-lbs (Nm)      (939)      (1,550)      (3,100)      (4,300)      (6,200)      (8,300)      (10,100)      (12,200)        Output Accuracy      +/- 5%      100%      100%      100%      100%      100%      100%      100%      100%      100%      100%      100%		(142)	(200)	(500)	(600)	(800)	(940)	(1,600)	(1,600)
(939)    (1,550)    (3,100)    (4,300)    (6,200)    (8,300)    (10,100)    (12,200)      Output Accuracy    +/- 5%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    +/- 2%    100%	Max Targue (t lbe (Nm)	693	1,144	2,288	3,174	4,577	6,127	7,456	9,006
Repeatability    +/- 2%    100% <t< td=""><td></td><td>(939)</td><td>(1,550)</td><td>(3,100)</td><td>(4,300)</td><td>(6,200)</td><td>(8,300)</td><td>(10,100)</td><td>(12,200)</td></t<>		(939)	(1,550)	(3,100)	(4,300)	(6,200)	(8,300)	(10,100)	(12,200)
Duty Cycle      100%	Output Accuracy	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Tool Weight (Kg)      4.9      5.9      7.5      8.9      14.8      16      18.8      18.8        D (mm)      75      77      81      88      113      120      128      128        M (mm)      131      165      200      218      246      258      270      270        L (mm)      324      358      393      411      439      451      463      463	Repeatability	+/- 2%	+/- 2%	+/- 2%	+/- 2%	+/- 2%	+/- 2%	+/- 2%	+/- 2%
D (mm)    75    77    81    88    113    120    128    128      M (mm)    131    165    200    218    246    258    270    270      L (mm)    324    358    393    411    439    451    463    463	Duty Cycle	100%	100%	100%	100%	100%	100%	100%	100%
M (mm)    131    165    200    218    246    258    270    270      L (mm)    324    358    393    411    439    451    463    463	Tool Weight (Kg)	4.9	5.9	7.5	8.9	14.8	16	18.8	18.8
L (mm) 324 358 393 411 439 451 463 463	D (mm)	75	77	81	88	113	120	128	128
	M (mm)	131	165	200	218	246	258	270	270
K (mm)      172<	L (mm)	324	358	393	411	439	451	463	463
	K (mm)	172	172	172	172	172	172	172	172
RPM      28      20      6      4.1      3.8      1.2      1.4      1.4	RPM	28	20	6	4.1	3.8	1.2	1.4	1.4

#### Why Tensioning?

Safe, reliable and repeatable, the use of hydraulic tensioners has many advantages over other less accurate tightening methods:

- Tension is applied directly to stretch the bolt, so we don't need to fight against friction or losses.
- The applied load is controlled very accurately, because it is directly proportional to the pressure applied to the tensioner.
- The load transfer factor is calculable, helping to give the correct residual load.
- Operation of tooling and improved accuracy reduces time required to re tighten the load.
- Tensioning allows for loading multiple fasteners in a joint at the same time.
- Uniform bolt loading ensures a high level of accuracy by applying a consistent force.
- Purely axial, tensile loading ensures no torsional stresses are introduced.



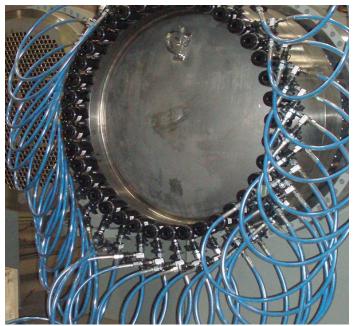


**Technotorc** 

#### **Features :**

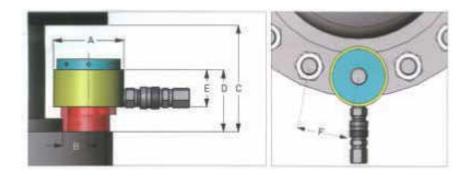
- Technotorc hydraulic bolt tensioners have eight load cells sizes from M16 to M150 (Metric) or 5%" to 5<sup>3</sup>/<sub>4</sub>" (Inch)
- Twin ports for quick connection of multiple tools
- Only one size of bridge per size of load cell
- Detachable and rotational bridge simplifies bolt tensionerpositioning
- Full bridge window
- Black surface treatment protects against corrosion
- Anti-slip grip for more secure handling
- Universal and multi-use tool.
- Double Straight Reaction Arm
- Blank Reaction Arm





# HYDRAULIC BOLT TENSIONER (TBT)



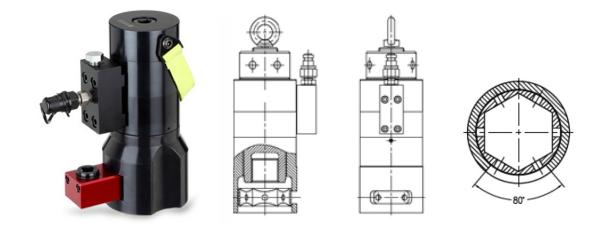


	Bolt	Size	Cylinder	Area	Dimension							
Model	Metric	Inch	Tons	Cm2	А	В	C	D	E	F	Kg	
TBT-3	M16 M18 M20 M22 M24	- 3/4" - 7/8" 1	23.5	15.7	75	32.5	168	90	62	47-51	2	
TBT-5	M27 M30 M33 M36 M39	1-1/8" - 1-1/4" 1-3/8" 1-1/2"	50	33	102	47	187	106	60	65-71	4	
TBT-9	M39 M42 M45 M48	1-1/2" 1-5/8" 1-3/4" 1-7/8"	90	59.7	133	61	208	120	60	86-93	6	
TBT-13	M52 M56 M60 M64	2" 2-1/4" - 2-1/2"	130	83	163	73	231	135	62	106-114	10	
TBT-19	M64 M68 M72 M76	2-1/2" - 2-3/4" 3"	190	123	193	86.5	254	150	62	129-135	15	
TBT-27	M76 M80 M85 M90 M95 M100	3" - 3-1/4" 3-1/2" 3-3/4" 4"	270	176	233	110	286	180	73	155-167	24	
TBT-44	M110 M120 M125	4-1/2" 4-3/4" 5"	440	251	280	111-121	304-338	181-197	37-40	210-233	45	
TBT-54	M130 M140 M150	5-1/4" 5-1/2" 5-3/4"	540	317	325	126-141	354-388	202-216	42-47	243-275	73	

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# **MULTI STAGE BOLT TENSIONER (MSBT)**

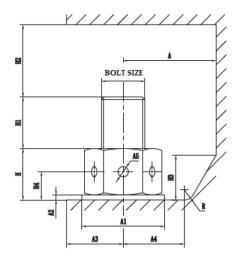




#### **Features and Benefits**

- Relatively smaller dimension with higher
- Multi-stage design, maximize the tensioning Length
- Suitable for single type bolt tensioning, high
- Max. Pressure: 2,500 Bar
- Can be operated with ultra high pressure hand pump, air pump and electric pump

Customers can fill the form below for us to chose the right design of multi-stage bolt tensioners for your solutions.



THREAD	
ADJACENT BOLT CENTER DISTANCE	mm.
BOLT TYPE(ROUND/HEX)	
BOLT SIZE	
BOLT TENSION FORCE	KN.
BOLT QTY.	
WORKING TEM	°C .

A:	MM
A1:	MM
A2:	MM
A3:	MM
A4:	MM
A5:	MM

Н:	MM
H1:	MM
H2:	MM
H3:	MM
H4:	
R:	MM

# **ELECTRIC POWERPACK FOR BOLT TENSIONER (TEP)**





#### **Features of Power Pack:**

- Brand new technology: Combine unit of Low pressure and high pressure equipments.
- Less High pressure component used, hence maintenance cost is less.
- All components are Highly precise and reputed make.
- Substantial savings in energy and oil consumption.
- Analog or Digital pressure gauges assure the highest possible read out and adjustment precision.
- High speed/flow.
- Remotely operation forward and reverse.
- Light weight & compact design.

#### **Optional Accessories:**

- High pressure hose
- High pressure QRC (Quick Release Coupling)
- Digital Pressure Gauge

	TECHNICAL DETAILS - MODEL TEP-1500 (TENSIONING PUMP)								
Pump									
Main Voltage	AC	230 V, 50Hz							
Solenoid Voltage	AC	230 V							
Main Consumption	A	10							
Motor Capacity	kW	1.5							
Protected According to	IP	IP 55							
Nominal Pressure	bar	0-1500							
Flow									
Flow @ 1500 Bar	lpm	0.1 @ 1500 bar							
Tank Volume	litre	14							
Oil Type		Servo 68							
Ambient Temperature	C	45							
Max Oil Temperature	C	60							
Weight									
Weight without oil	Kg	35 Approx							





The air operated powerpack for bolt tensioner TPP-1500 are designed to meet the highest technical and safety requirements of high pressure equipment.

#### **Technical Features**

- Stainless Steel Frame: The hydraulic unit is installed in a weather proof stainless steel protection frame.
- Logical Control Panel: Logical layout design engraved for easy operation.
- **Calibrated Pressure Gauge:** Calibrated 150mm (6"), liquid filled, SS Frame, 2500 bar rating pressure gauge with dual reading of bar & psi.
- Complete Air System: System includes FRL Unit, air pressure gauge and control knob for safe air control and supply.
- Higher Operating Pressure: Pump has max working pressure of 1500 bar to cover all bolt tensioning applications.
- Light Weight: Unit weighs only 18 Kg and measures 450mm x 340mm x 480mm.
- Lower Input air Pressure: Higher pressure ratio of 1: 350 ensures less input air pressure for operation.
- Quick Connect Outlet: Pump comes fitted with quick connect outlet for easy connection of hydraulic hose.

#### **Optional Accessories:**

- High pressure hose
- High pressure QRC (Quick Release Coupling)
- Digital Pressure Gauge

TECHNICAL DETAILS - MODE	TECHNICAL DETAILS - MODEL TPP-1500 (AIR OPERATED TENSIONING PUMP)							
Pump								
Pressure Ratio		1:350						
Displacement Volume	cm3	1.3						
Operating Pressure, Max. ( at 5.1 bar Pre Limited (PL) Air Pressure )	bar	1800						
Compressed air supply (air drive)								
System Operating Air Pressure, Max.	bar	5.1						
Safety Valve Set Pressure	bar	5.5						
Stainless Steel Tank Capacity								
Oil Tank capacity	litre	5						

# **HYDRAULIC HAND PUMPS (THP)**



#### **FEATURES**

- Construction : Alloy steel
- Ground & plated plungers
- Built-in factory set safety relief valve
- Durable polyurethane plunger seal
- Collapsible handle for faster stroke at low pressure
- fast approach to load
- Compatible to all reputed brand jacks

# Single Stage:

**Technotorc** Power in Hand

#### **Technical Specifications:**

	TECHNOTORC HAND PUMPS									
Pump		Pres	sure	Flow/Stroke (cc)		Filling	Usable	Handle Effort	Dry	
Stage Model	Wodel	1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage	1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage	Capacity (Lit)	Oil (Lit)	(Kg)	Weight (Kg)	
	THP-1.8	-	700	-	2.8	1.8	1	40	7.4	
Single	THP-2		700	-	2.8	2	1.5	40	9.5	
	THP-4	-	700	-	2.8	4	2.9	40	10.5	



Two Stage:

	TECHNOTORC HAND PUMPS									
Pump	Model	Pres	sure	Flow/Stroke (cc)		Filling	Usable Oil	Handle Effort	Dry Weight	
Stage	woder	1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage	1 <sup>st</sup> Stage	2 <sup>nd</sup> Stage	Capacity (Lit)	(Lit)	(Kg)	(Kg)	
	THP-5	30	700	49	2.8	5	3.5	40	18.5	
Two	THP-8	30	700	49	2.8	8	7.5	40	20	
	THP-13	30	700	49	2.8	13	11	40	24.5	
	THP-20	30	700	49	2.8	20	16	40	28	





#### **FEATURES AND BENEFIT**

- Heavy duty construction for extended lift and ease of maintenance
- Air exhaust muffler for quiet operation
- Pumps feature both air and oil filters to reduce risk of damage from contaminates
- Internal load limiting device prevents overload

		_	Air	Air	Usable	Flow	Rate		Din	nensio	ons			Weight						
Model	Cylinder Type	Pressure	Pressure	Volume	Oil Volume	No Load	Load	Valve Function	L	W	Н	Reservoir Material	Control Type	Weight						
	.,,,,,,	bar	bar	l/min	cm3	cm3	cm3		mm	mm	mm	inaconai		kg						
TFP-001		0-700	0-700	0-700	0-700	0_700		300	2300	0.8	0.12		312	170	190	Plastic		11.8		
<b>TFP-002</b>										300	1600	0.8	0.12		263	136	185	Aluminium	Foot	8.6
<b>TFP-003</b>	Single Acting						6-70	300	1600	0.8	0.12	2W2P	317	178	190	Steel	Pedal	12.7		
<b>TFP-004</b>					300	4500	0.8	0.12		280	225	254	Steel		16.5					
<b>TFP-005</b>				300	2300	0.8	0.12		312	170	210	Plastic	Remote	12						

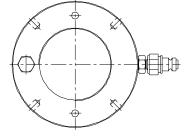
# **HYDRAULIC NUTS (THN)**

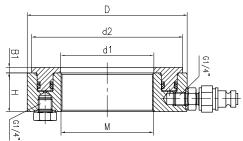


Commonly used in bearings, flywheels, propellers and other workpiece presses hydraulic tools, With the resulting top thrust is smooth no impact, the process does not hurt the workpiece and other characteristics. Through the hydraulic nut inner thread, which can be installed in the shaft parts, the piston under the action of 700 bar hydraulic pressure to push the workpiece to the installation position.









Model	Thread	Outside Dia d	Dia d1	Dia d2	Height h	B1	Stroke	Effective Area	Weight
	m	mm	mm	mm	mm	mm	mm	mm²	kg
THN50	M50X1.5	114	50.5	104	38	4	5	3376	2.7
THN60	M60X2	125	60.5	115	38	5	5	4239	2.8
THN70	M70X2	135	70.5	127	38	5	5	4710	3.2
THN80	M80X2	146	80.5	137	38	5	5	5181	3.7
THN90	M90X2	156	90.5	147	38	5	5	5652	4
THN100	M100X2	166	100.5	158	38	6	5	5987	4.4
THN110	M110X2	178	110.5	169	38	6	5	6386	4.95
THN120	M120X2	188	120.5	179	38	6	5	8568	5.25
THN130	M130X2	198	130.5	190	38	6	5	7165	5.65
THN140	M140X2	208	140.5	200	39	7	5	7605	6
THN150	M150X2	220	150.5	211	39	7	6	7736	6.6
THN160	M160X3	232	160.5	224	40	7	6	8002	7.6
THN170	M170X3	244	170.5	235	41	7	6	8669	8.4
THN190	M190X3	270	191	259	42	8	8	92266	10.5
THN200	M200X3	282	201	271	43	8	8	8612	11.5
THN210	Tr210X4	294	212	282	44	8	9	11728	12.5
THN220	Tr220X4	306	222	293	44	8	9	11815	13.5
THN30	Tr230X4	318	232	305	45	8	9	12270	15
THN250	Tr250X4	342	252	329	46	9	10	13317	17
THN280	Tr260X4	380	282	363	49	9	12	14683	22
THN300	Tr300X4	404	302	386	51	10	13	15640	25
THN400	Tr400X4	522	402	499	60	11	17	20602	45.5
THN500	Tr500X4	636	502	609	67	12	19	24337	70
THN600	Tr600X4	748	602	721	73	13	23	28274	100
THN710	Tr710X4	870	712	840	78	15	25	30730	135
THN800	Tr800X4	965	802	936	80	16	25	31770	161
THN900	Tr900X4	1075	902	1043	86	17	30	32848	205



#### **Features and Benefits**

- Compact and easy to use
- Single acting, spring return cylinder for fast blade retraction
- Easy to replace blade
- Angled head design for increased clearance Model-



Model No	Nut Range (mm)	Oil Capacity (cm³)	Capacity (ton)	Bolt Range	Weight (kg)
TNS-1019	10-19	15	5	M6-12	1.3
TNS-1924	19-24	20	10	M12-16	2.2
TNS-2432	24-32	60	15	M16-22	3.3
TNS-3241	32-41	80	20	M22-27	4.5
TNS-4150	41-50	155	35	M27-33	8.5
TNS-5060	50-60	240	50	M33-39	12
TNS-6075	60-75	492	90	M39-48	34.5
TNS-7080	70-80	377	103	M45-52	38
TNS-7085	70-85	377	103	M45-56	39
TNS-7095	70-95	377	103	M45-64	40
TNS-70105	70-105	377	103	M45-72	41
TNS-110115	110-115	819	193	M76-80	70
TNS-110130	110-130	819	193	M76-90	73



#### DOUBLE ACTING HYDRAULIC NUT SPLITTER

Model No	Nut Range inch mm		Bolt inch	Range mm	Weight (kg)
DNS-75105	2 15/16"-4 1/4"	75-105	1 7/8"-2 3/4"	M48-72	51
DNS-105135	4 1/4"-5 3/8"	105-135	2 3/4"-3 1/2"	M72-95	98



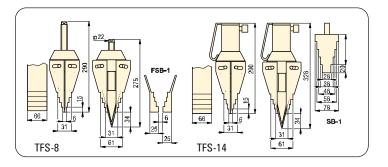
#### INTEGRAL HYDRAULIC NUT SPLITTER

Model No	Capacity (ton)	Weight (kg)	Nut Range (mm)	Bolt Range
HNS-2432	15	9	24-32	M16-22
HNS-3241	20	11	32-41	M22-27
HNS-4150	35	14	41-50	M27-33

Hydraulic Flange Spreaders are used for safety opening pipe flanges. Available in capacities of 5 tonnes and 10 tonnes the versatility of both models enables the user to open flanges up to 92mm thick. Operated with a standard hydraulic hand pump and connecting hose and supplied in a handy steel storage case,

Hydraulic Flange Spreaders can be operated individually, or as a pair when opening large diameter flanges. With Hydraulic Flange Spreaders it takes minutes open the toughest flanges without the risks of sparks caused by hammer blows and chisels.

- Requires access gap of only 6mm
- Portable tools to safety spread flange joints
- Few moving parts mean durability and low maintenance
- Available for both mechanical and hydraulic options







Technotorc

Max Spreading Force(ton)	Model No	Max Spread (mm)	Tip Clearance (mm)	Spreader Type	Oil Cap (cm³)	Weight (kg)
8	TFS-8	81	6	Mechanical	No	7
14	TFS-14	81	6	Hydraulic	78	9

#### INTEGRAL HYDRAULIC FLANGES SPREADING WEDGE

- Portable and compact design
- No need extra hose and pump



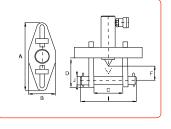


Max Spreading Force(ton)	Model No	Max Spread (mm)	Tip Clearance (mm)	Spreader Type	Oil Cap (cm³)	Weight (kg)
14	FSH-15	81	6	Hydraulic	78	10



- Light weight, easy to operate
- Compact and ergonomic design
- Adjustable jaw size from 70mm to 216mm
- Single-acting, spring return





Niodol '	Cap	Stud	Oil Cap	Stroke	wedge	Diameter(mm)									
Wouci	(ton)	(mm)	(cm³)	(mm)	(mm)	Α	В	C	D	E	<u> </u>	J	(kg)		
FS-56	5	19-28	24.6	38	3-28	209	76	70-150	88	32	206	19	11		
FS-109	10	31-41	78.7	54	3-28	279	108	104-216	114	50	273	31	19		

#### INTEGRAL VERTICAL LIFTING WEDGE

- Requires very small access gap of 10 mm
- Each step can spread under full load
- Single acting, spring return



Model	Max Spreading Force(ton)	Tip Clearance(mm)	Stroke(mm)	Max Spread(mm)	Weight(kg)
LW-18	16	10	21	81	13







# **HYDRAULIC JACKS & CYLINDERS**

- Low height jacks
- Hollow jacks
- General purpose jacks
- Flat jacks
- Threaded ram Spl. jacks



### **DESIGN & CONSULTING SERVICES**



Today Mechanical industries, worldwide are faced with a need to develop a robust system to create foremost engineering designs and reduce cost & time to market.

TECHNOTORC offers a complete portfolio of design services that can be tailored to the requirements of the Engineering industry.

TECHNOTORC offers engineering skills to Indian and global companies through its state-of-the-art design facilities, ensuring quality, competitive cost and timely delivery.

TECHNOTORC with an in-depth understanding of the product development and engineering requirements of the OEMs offers highly optimum engineering solutions

Our services include computer-aided design (CAD), computer-aided Manufacturing (CAM), tooling, and system engineering for faster product development cycles in the manufacturing of Hydraulic, Pneumatic and Electrical components.

#### Engineering Design service team offering includes...

#### Innovations & Concepts to Actual Proto Product Design and Analysis

- 3D Modeling
- 2D Drafting & Detailing
- Advanced Surfacing
- Sheet Metal Design
- Stress Strain analysis
- Flow and Simulations

#### Migration from 2D to 3D

Conversion of 2D drawing in to parametric 3D model.

#### **Legacy Data and Drawings Conversion**

Digitization of legacy drawings

#### **Reverse Engineering**

- Prototyping 3D Printing
- Measurement & Tolerance stack up calculations
- 2D Drafting and 3D modeling from Real components.

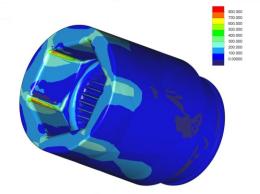
#### **Manufacturing Engineering**

- Jig & Fixture Design
- Process / Setup sheets

TECHNOTORC can provide integrated solution to address your Manufacturing engineering and outsourcing requirements.

#### **Benchmarking & Patent Filling**

We protect IPR by creating Benchmarking and Filling several Patents against innovations. As per requirement, We also do NDA with Customers



# Our Engineering team expertise in Design & Manufacturing of Hydraulic, Pneumatic and Electrical domain includes Hydraulic, Pneumatic & Electrical Torque Wrenches

- Square drive Tools, Limited Clearance Tools, Versatile Interchangable Power head tools, Open Jaw and Special Purpose customized Tools
- Spring Loaded, Sub sea Tensioners, Multistage tensioners for wind applications
- Electric & Pneumatic Powerpack : 300 Bar to 2500 Bar Compact and Light weight designs for Various applications like Torquing, Tensioning, Parking Lifts, Pipe Hydrotest Units
- Torque Multipliers , Special Purpose Impact Sockets, Jacks, Hand Pumps, Flange spreaders and Nut Splitters
- Test Equipments, Rigs, Calibration systems
- Automation & Integration

# API FLANGE AND BOLT DETAILS

		Bolt dia mm	20	20	24	27	30	27	30	33		39	45	52	52	64	70											
	2500	Bolt dia inches	3/4	3/4	7/8	-	1.1/8	-	1.1/8	1.1/4		1.1/2	1.3/4	2	2	2.1/2	2.3/4											
		No.of Bolts	4	4	4	4	4	80	8	80		80	8	80	12	12	12											
		Bolt dia mm	20	20	24	24	27	24	27	30		33	39	36	42	48	52	56	54	70	76	06						
	1500	Bolt dia inches	3/4	3/4	7/8	7/8	-	7/8	-	1.1/8		1.1/4	1.1/2	1.3/8	1.5/8	1.7/8	2	2.1/4	2.1/2	2.3/4	ç	3.1/2						
		No.of Bolts	4	4	4	4	4	œ	œ	œ		œ	œ	12	12	12	12	16	16	16	16	16						
		Bolt dia mm	20	20	24	24	27	24	27	24		30	33	30	36	35	36	39	42	48	52	64	70	76	76	85	06	Ub
	006	Bolt dia inches	3/4	3/4	7/8	J/8	٦	2/8	-	2/8		1.1/8	1.1/4	1.1/8	1.3/8	1.3/8	1.3/8	1.1/2	1.5/8	1.7/8	2	2.1/2	-	c	ę	3.1/2	3.1/2	3 1/2
Flange Size		No.of Bolts	4	4	4	4	4	8	8	8	I	80	8	12	12	16	20	20	20	20	20	20	20	16	20	20	20	20
Flang		Bolt dia mm	14	16	16	16	20	20	20	20	22	24	27	27	30	33	33	36	39	42	42	48	48	52	52	56	56	64
	600	Bolt dia inches	1/2	5/8	5/8	5/8	3/4	5/8	3/4	3/4	7/8	7/8	-	-	1.1/8	1.1/4	1.1/4	1.3/8	1.1/2	1.5/8	1.5/8	1.7/8	1.3/4	2	2	2.1/2	2.1/2	2.1/2
		No.of Bolts	4	4	4	4	4	8	8	8	80	8	80	12	12	16	20	20	20	20	24	24	24	28	28	28	28	28
		Bolt dia mm	14	16	16	16	20	16	20	20	20	20	20	24	27	30	30	33	33	33	33	42	42	45	40	48	48	52
	300	Bolt dia inches	1/2	5/8	5/8	5/8	3/4	5/8	3/4	3/4	3/4	3/4	3/4	3/4	3/J	-	1.1/8	1.1/8	1.1/4	1.1/4	1.1/4	1.1/2	1.1/4	1.1/2	1.3/4	1.1/4	1.1/2	2
		No.of Bolts	4	4	4	4	4	8	8	8	8	8	9	12	12	16	16	20	20	24	24	24	28	28	28	28	28	32
		Bolt dia mm	14	14	14	14	14	16	16	16	20	20	20	20	24	24	27	27	30	30	33	33	33	33	33	39	39	39
	150	Bolt dia inches	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8	-	-	1.1/8	1.1/8	1.1/4	1.1/2	1.1/2	1.1/2	1.1/2	1.1/2	1.1/2
		No.of Bolts	4	4	4	4	4	4	4	4	8	8	80	80	8	12	12	12	16	16	20	20	24	28	28	28	32	32
Nominal Size		Metric	15	20	25	32	40	50	65	80	06	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	850	006
Nomin		Inches	1/2	3/4	-	1.1/4	1.1/2	2	2.1/2	ŝ	3.1/2	4	2	9	8	10	12	14	16	18	20	24	26	28	30	32	34	36

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#### **BOLT GRADES AND CORRESPONDENCE TORQUE CHART**



Rolf			Bolt Gra	ade:8.8			Bolt Gra	ide:10.9			Bolt Gra	ade:12.9		Dalt		Bolt Grade:B7/B16			
Bolt Size	A/F	Tourqu	ie Values	s (Nm)	Tension	Tourqu	ue Values	s (Nm)	Tension	Tourqu	ie Value:	s (Nm)	Tension	Bolt Size	A/F	Tourq	ue Values	s (Nm)	Tension
		µ=0.10	µ=0.15	µ=0.2	(KN)	µ=0.10	µ=0.15	µ=0.2	(KN)	µ=0.10	µ=0.15	µ=0.2	(KN)			µ=0.10	µ=0.15	µ=0.2	(KN)
M16	24	121	165	208	54	171	232	292	76	205	278	351	91	5/8"	1.1/16"	126	171	215	57
M18	27	165	224	283	66	233	316	399	92	279	379	478	111						
M20	30	237	322	406	85	333	452	571	119	400	543	685	143	3/4"	1.1/4"	226	306	387	85
M22	32	327	443	560	106	459	623	787	149	551	748	945	179	7/8"	1.7/16"	366	496	627	17
M24	36	409	556	702	122	576	781	987	UI	691	938	1184	206	1"	1.5/8"	549	745	941	154
M27	41	608	828	1043	161	855	1161	1467	226	1027	1393	1760	272						
M30	46	820	1113	1406	195	1154	1566	1978	275	1384	1879	2373	330	1.1/8"	1.13/16"	816	1107	1398	204
M33	50	1128	1531	1933	244	1586	2152	2719	343	1903	2583	3263	412	1.1/4"	2"	1157	1570	1983	260
M36	55	1442	1957	2472	286	2028	2752	3476	402	2433	3302	4171	483	1.3/8"	2.3/16"	1582	2147	2712	324
M39	60	1881	2553	3225	345	2646	3590	4535	485	3175	4308	5442	581	1.1/2"	2.3/8"	2100	2850	3600	394
M42	65	2317	3145	2973	394	3259	4423	5587	554	3911	5307	6704	665	1.5/8"	2.9/16"	2720	3692	4663	471
M45	70	2912	3952	4992	462	4095	5558	7021	650	4914	6670	8425	780	1.3/4"	2.3/4"	3452	4685	5917	555
M48	75	3490	4737	5984	519	4909	6662	8415	730	5890	7994	10097	877	1.7/8"	2.15/16	4304	5841	7378	645
M52	80	4545	6169	7792	624	6392	8675	10958	878	7670	10410	13149	1054	2"	3.1/8"	5285	7173	9060	743
M56	85	5642	7658	9673	720	7935	10768	13602	1012	9522	12922	16323	1214	2.1/4"	3.1/2"	7674	10414	13155	959
M60	90	7076	9603	12130	842	9951	13504	17058	1185	11941	16205	20470	1422						
M64	95	8535	11583	14631	953	12002	16289	20575	1340	14403	19547	24690	1607	2.1/2"	3.7/8"	10691	14509	18327	1203
M68	100	10405	14121	17838	1093	14632	19858	25084	1537	17559	23830	30101	1844	2.3/4"	4.1/4"	13038	17694	22350	1333
M72	105	12530	17005	21480	1243	17620	23913	30206	1748										
M76	110	14926	20256	25587	1403	20989	28485	35981	1973										
M80	115	17608	30185	1572	1572									3"	4.5/8"	17104	23213	29321	1603
M85	120	21390	29029	36668	1797														
M90	130	25676	34847	44017	2038									3.1/4"	5"	21938	29774	37609	1898
M95	135	30500	41393	52286	2293									3.1/2"	5.3/8"	27607	37467	47326	2218
MI00	145	35893	48712	61531	2564									3.3/4"	5.3/4"	34176	46382	58588	2563
MI05	150	41886	56846	71805	2849									4"	6.1/8"	41712	56610	71507	2933
Mi10	155	48511	65837	83162	3150														

 $\mu$ =0.10 - Lubricated Bolts

 $\mu{=}\,0.15$  - Semi Lubricated Bolts

Newton - Meter Nm to Foot-Pounds ldf. ft. (INm = 0.7381bf. ft.) Kilogram - Force Meter to Newton — Meter (1 Kgm = 9.80 Nm)

 $\mu$ =0.2 - Dry Bolts



#### Technotorc Tools Pvt. Ltd.

Plot No. 22, 208 G & H, Gupta Bldg., Empire Industrial Hub, Ambernath MIDC, Chikholi, Ambernath (W), Thane - 421505. MH, INDIA. Contact: +91 - 97660 49616 • Email: info@technotorc.com