

Compact design, makes easy to fit in confined spaces.

Models are available in metric and imperial sizes.

Suitable for tightening multiple bolts at a time.

Maximum piston stroke of 10mm except BTS0- is 8mm.

Suitable to operate with manual or air driven hydraulic pumps.

Fitted with high pressure M/F couplers.

Model	Stud Diameter		Total Load		Effective Area Sq.mm	Stroke mm	A mm	B mm	C mm	D mm	Approx. Weight Kgs.
	Imperial	Metric	Lbf	Kn							
BTS 0	3/4 7/8	M20 M22	35,500	160	1067	08	66.8	92.5	63 63	114 114	2.5
BTS 1	1" 1.1/8"	M24 M27	61,950	280	1867	10	85	117 117 120	68 68 72	142 142 145	3.7
BTS 2	1" 1.1/8" 1.1/4" 1.3/8"	M24 M27 M30 M33 M36	99,700	450	3001	10	103	117 117 120 123 126	75 75 80 84 89	142 142 145 148 151	5.5
BTS 3	1.1/4" 1.3/8" 1.1/2" 1.5/8"	M33 M36 M39 M42	145,950	660	4401	10	118	123 126 130 133	92 96 105 105	150 153 156 159	7.5
BTS 4	1.1/2" 1.5/8" 1.3/4" 1.7/8" 2"	M39 M42 M45 M48	223,550	1000	6668	10	140.5	132 135 139 142 145	112 114 118 114 120	164 167 170 173 176	11.5
BTS 5	2" 2.1/4" - 2.1/2" - 2.3/4"	M52 M56 M60 M64 M68 M70	331,400	1500	10003	10	175.5	148 155 155 161 161 161 167	134 148 148 153 153 153 165	187 194 194 200 200 200 206	18.5
BTS 6	2.3/4" 3" 3.1/4" 3.1/2"	M72 M76 M80 M85 M90	553,200	2500	16671	10	219	167 171 180 180 186	172 182 182 190 205	216 223 223 229 235	33
BTS 7	3.1/2" 3.3/4" 4"	M90 M95 M100	708,200	3200	21339	10	252	186 186 192 199	200 200 200 210	241 241 247 254	47
BTS 8	4" 4.1/4" 4.1/2"	M105 M110 M115	921,717	4100	27,336	10	283	199 199 205 212	255 255 260 270	264 264 270 277	63.5

CONVERSION KIT

The versatile design of Lifton bolt tensioner makes the user to adapt an existing tensioner assembly to different thread sizes within its range by opting a conversion kit. This interchangeability makes it more cost effective. The kit consists of bridge, threaded puller and corresponding nut rotating socket.

ORDERING INFORMATION

BTS - (load cell number)-(thread size) - K

For example: BTS-3-2"-K

Conversion kit for 2" stud to use with Load cell No.3

Stud size : 2"



TENSIONER PUMP

Options for manual and air driven tensioning pumps
 Supplied with female quick release coupler at the outlet.
 Maximum working pressure 1500 bar.
 Mounted with glycerin filled pressure gauge (1500bar).

Ultra high pressure hoses, maximum working pressure 1500 bar supplied with male and female couplers.
 Models are available in different lengths.
 Has a safety factor of 3:1 on maximum working pressure.



Type	Model No.	Working pressure (Bar)	Oil capacity (liter)	Weight (Kg)
Manual	LHP1500TP	1500	1.5	7.25
Air Driven	LAP2000TP	1500	8	

Model No.	Working pressure (Bar)	Description
HS1500-1.5	1500	Link hose with quick connect couplings length 1.5 metres
HS1500-3	1500	Link hose with quick connect couplings length 3 metres

MAX. WORKING PRESSURE: 1500 BAR



Piston stroke: 1.18 inch (Except LTU1- 0.79 Inch).

Max tool pressure - 1500 bar.

'D' includes an allowance for tool removal after bolt tightening with 30 mm tool stroke.

Product development is constantly taking place and dimensions may change without notice .



i Our Subsea bolt tensioner incorporating the quick reaction nut feature reduces diver fatigue, improving diver safety and productivity.



Tool Ref	Bolt Diameter		Tool Load KN	Hydraulic Area		'A' In/mm	'B' In/mm	'C' A/F In/mm	Minimum Bolt Protrusion (Above Nut)		'D' In/mm	Stroke In/mm
	Imperial	Metric		In ²	mm ²				In Imperial	mm Metric		
LTU1	3/4" 7/8"	M20v M22	141	1.96	943	2.60/66	3.82/97	1.89/48	4.09 3.98	107 105	8.98/228	0.79/20
LTU2	1" 1-1/8"	M24 M27 M30	237	2.45	1585	3.23/82	5.02/127.5	2.36/60	5.24 5.12	139 136 134	11.65/296	1.82/30
LTU3	1-1/4" 1-3/8"	M33 M36	379	3.92	2532	3.82/97	5.39/137	3.03/77	5.35 5.24	142 139	12.17/309	1.82/30
LTU4	1-1/2" 1-5/8"	M39 M42	551	5.69	3676	4.37/111	5.75/146	3.54/90	5.51 5.35	147 144	12.68/322	1.82/30
LTU5	1-3/4" 1-7/8" 2"	M45 M48 M52	880	9.10	5868	5.35/136	6.22/158	4.49/114	5.94 5.83 5.71	160 158 154	13.46/342	1.82/30
LTU6	2-1/4" 2-1/2" 2-3/4"	M56 M60 M64 M68 M70	1564	16.17	10433	6.97/177	7.11/180.5	5.51/140	6.54 6.30 6.08	178 175 172 169 165	14.72/374	1.82/30
LTU7	3" 3-1/4" 3-1/2"	M76 M80 M85 M90	2419	26.63	16128	8.54/217	7.95/202	7.09/180	7.13 6.89 6.65	195 192 188 184	15.10/409	1.82/30

HEAVY DUTY SOCKETS

METRIC & IMPERIAL SIZES

Black finish , high strength alloy steel.

Available various square drive sizes

Suitable for impact and high torque applications.



Hexagon A/F Size(mm)	1/2" Square Drive				3/4" Square Drive				1" Square Drive				1.1/2" Square Drive				2.1/2" Square Drive			
	Model	D1	D2	H	Model	D1	D2	H	Model	D1	D2	H	Model	D1	D2	H	Model	D1	D2	H
17	M50-17	26	30	38																
18	M50-18	27	30	38																
19	M50-19	27	30	38																
21	M50-21	30	30	38																
22	M50-22	32	30	38																
23	M50-23	32	30	38																
24	M50-24	35	30	45	M75-24	40	44	46												
27	M50-27	38	30	50	M75-27	41	44	48												
30	M50-30	44	30	50	M75-30	44	44	52												
32	M50-32	45	30	50	M75-32	49	44	52												
34					M75-34	52	44	55												
36					M75-36	52	44	55	M100-36	54	54	60								
41					M75-41	57	44	59	M100-41	63	54	64	M150-41	70	86	80				
46					M75-46	67	44	64	M100-46	70	54	69	M150-46	75	86	80				
50					M75-50	70	54	67	M100-50	73	54	72	M150-50	80	86	82				
55					M75-55	78	54	71	M100-55	82	54	76	M150-55	86	86	92				
60					M75-60	82	54	75	M100-60	86	54	87	M150-60	92	86	96				
65									M100-65	92	54	92	M150-65	100	86	96				
70									M100-70	99	54	96	M150-70	105	86	101	M250-70	130	125	120
75									M100-75	106	86	98	M150-75	110	86	103	M250-75	130	125	130
80									M100-80	112	86	100	M150-80	116	86	110	M250-80	135	125	140
85									M100-85	118	86	105	M150-85	125	86	118	M250-85	140	125	140
90									M100-90	125	86	105	M150-90	130	86	118	M250-90	145	125	140
95													M150-95	137	95	118	M250-95	155	125	150
100													M150-100	140	95	125	M250-100	160	125	150
105													M150-105	150	95	125	M250-105	165	125	160
110													M150-110	156	95	125	M250-110	174	150	160
115													M150-115	160	95	135	M250-115	180	150	170
120																	M250-120	185	150	175
125																	M250-125	195	150	175
130																	M250-130	195	150	175
135																	M250-135	205	150	180
140																	M250-140	220	150	180
145																	M250-145	220	150	180
150																	M250-150	230	180	190
3/4"					IM75-075	32	44	45												
7/8"					IM75-087	38	44	46												
1.1"					IM75-106	41	44	48												
1.1/4"					IM75-125	49	44	52	IM100-125	51	54	57								
1.7/16"					IM75-143	52	44	56	IM100-143	54	54	60								
1.5/8"					IM75-162	57	44	59	IM100-162	63	54	64	IM150-162	70	86	80				
1.13/16"					IM75-181	67	54	64	IM100-181	70	54	69	IM150-181	75	86	80				
"2"					IM75-200	73	54	67	IM100-200	73	54	72	IM150-200	80	86	82				
2.3/16"					IM75-218	78	54	71	IM100-218	80	62	72	IM150-218	86	86	92				
2.3/8"					IM75-237	82	54	75	IM100-237	87	62	78	IM150-237	96	86	96				
2.9/16"									IM100-256	93	62	80	IM150-256	100	86	96				
2.3/4"									IM100-275	98	62	85	IM150-275	105	86	101				
2.15/1"									IM100-293	104	86	95	IM150-293	110	86	103				
6"									IM100-312	109	86	100	IM150-312	116	86	110	IM250-312	135	125	140
3.1/8"									IM100-350	125	86	105	IM150-350	130	86	118	IM250-350	145	125	140
3.1/2"													IM150-387	140	95	125	IM250-387	155	125	150
3.7/8"													IM150-425	150	95	125	IM250-425	174	150	160
4.1/4"													IM150-462	165	95	135	IM250-462	180	150	175
4.5/8"													IM150-500	179	127	140	IM250-500	195	150	175
5"													IM150-537	195	127	150	IM250-537	205	150	180
5.3/8"																	IM250-575	220	150	180
5.3/4"																	IM250-612	230	180	190
6.1/8"																				

MAX. WORKING PRESSURE: 1500 BAR
High strength alloy steel.

Supplied with holding ring.

Customized sizes available up on request.



	Out side Hexagon A/F Size(mm)	In side Hexagon A/F Size(mm)	For Model ITZ-2	For Model ITZ-4	For Model ITZ-8	For Model ITZ-14	For Model ITZ-20
	32	27	2R 32-27	4R 32-27			
		27	2R 36-27	4R 36-27			
	36	30	2R 36-30	4R 36-30			
		27	2R 41-27	4R 41-27			
	41	30	2R 41-30	4R 41-30			
		32	2R 41-32	4R 41-32			
	46	30	2R 46-30	4R 46-30			
		32	2R 46-32	4R 46-32			
		36	2R 46-36	4R 46-36			
		32	2R 50-32	4R 50-32			
	50	36	2R 50-36	4R 50-36			
		41	2R 50-41	4R 50-41			
		36		4R 55-36			
	55	41		4R 55-41			
		46		4R 55-46	8R 55-46		
		41		4R 60-41	8R 60-41		
	60	46		4R 60-46	8R 60-46		
		50		4R 60-50	8R 60-50		
		46		4R 65-46	8R 65-46		
	65	50		4R 65-50	8R 65-50		
		55		4R 65-55	8R 65-55		
		46			8R 70-46		
	70	50			8R 70-50		
		60			8R 70-60		
		50			8R 75-50		
	75	55			8R 75-55		
		65			8R 75-65	14R 75-65	
		55			8R 80-55	14R 80-55	
	80	60			8R 80-60	14R 80-60	
		70			8R 80-70	14R 80-70	
		60			8R 85-60	14R 85-60	
	85	65			8R 85-65	14R 85-65	
		75			8R 85-75	14R 85-75	
		65			8R 90-65	14R 90-65	
	90	70			8R 90-70	14R 90-70	
		80			8R 90-80	14R 90-80	
		70			8R 95-70	14R 95-70	
	95	75			8R 95-75	14R 95-75	
		85			8R 95-85	14R 95-85	20R 95-85
		80				14R 100-80	20R 100-80
	100	85				14R 100-85	20R 100-85
		90				14R 100-90	20R 100-90
		85				14R 105-85	20R 105-85
	105	90				14R 105-90	20R 105-90
		95				14R 105-95	20R 105-95
		90				14R 110-90	20R 110-90
	110	95				14R 110-95	20R 110-95
		100				14R 110-100	20R 110-100
		95				14R 115-95	20R 115-95
	115	100				14R 115-100	20R 115-100
		105				14R 115-105	20R 115-105
		100					20R 120-100
	120	105					20R 120-105
		110					20R 120-110
		110					20R 130-110
	130	115					20R 130-115
		120					20R 130-120
		115					20R 145-115
	145	120					20R 145-120
		130					20R 145-130

Metric Sizes

**REDUCER INSERTS IMPERIAL
LOW CLEARANCE
HYDRAULIC WRENCH**



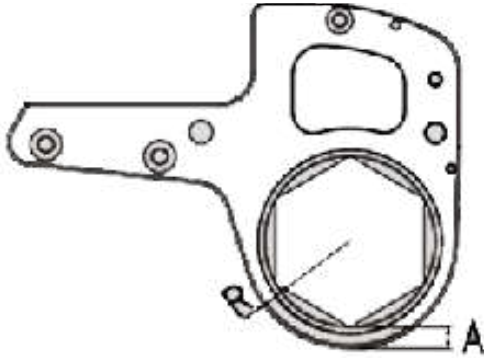
High strength alloy steel.

Supplied with holding ring.

Customized sizes available up on request.



Imperial Sizes	Out side Hexagon	In side Hexagon	For Model ITZ-2	For Model ITZ-4	For Model ITZ-8	For Model ITZ-14	For Model ITZ-20
	A/F Size (inch)	A/F Size (inch)					
	1.1/4"	1.1/16"	2R 104-101				
	1.7/16"	1.1/16"	2R 107-101				
		1.1/4"	2R 107-104				
	1.5/8"	1.1/4"	2R 110-104	4R 110-104			
		1.7/16"	2R 110-107	4R 110-107			
	1.13/16"	1.7/16"	2R 113-107	4R 113-107			
		1.3/8"	2R 113-106	4R 113-106			
	2"	1.3/8"	2R 200-106	4R 200-106			
		1.13/16"	2R 200-113	4R 200-113			
	2.3/16"	1.5/8"	2R 203-110	4R 203-110			
		1.13/16"	2R 203-113	4R 203-113			
		2"	2R 203-200	4R 203-200			
	2.3/8"	1.13/16"	2R 206-113	4R 206-113			
		2"	2R 206-200	4R 206-200			
		2.3/16"	2R 206-203	4R 206-203	8R 206-203		
	2.9/16"	2"		4R 209-200			
		2.3/16"		4R 209-203	8R 209-203		
		2.3/8"		4R 209-206	8R 209-206		
	2.3/4"	2.3/16"		4R 212-203	8R 212-203		
		2.3/8"		4R 212-206	8R 212-206		
		2.9/16"		4R 212-209	8R 212-209		
	2.15/16"	2.3/8"		4R 215-206	8R 215-206		
		2.9/16"		4R 215-209	8R 215-209		
		2.3/4"		4R 215-212	8R 215-212	14R 215-212	
	3.1/8"	2.9/16"		4R 302-209	8R 302-209		
		2.3/4"		4R 302-212	8R 302-212	14R 302-212	
	3.1/2"	2.15/16"			8R 302-215	14R 302-215	
		3.1/8"			8R 308-215	14R 308-215	
	3.7/8"	3.1/8"			8R 308-302	14R 308-302	20R 308-302
		3.1/2"			8R 314-302	14R 314-302	20R 314-302
	4.1/4"	3.1/2"			8R 314-308	14R 314-308	20R 314-308
		3.7/8"				14R 404-308	20R 404-308
	4.5/8"	3.7/8"				14R 404-314	20R 404-314
		4.1/4"					20R 410-314
	5"	4.1/4"					20R 410-404
		4.5/8"					20R 500-404
	5.3/8"	4.5/8"					20R 500-410
		5"					20R 506-410
	5.3/4"	5"					20R 506-500
		5.3/8"					20R 512-500
	6.1/8"	5.3/8"					20R 512-506
		5.3/4"					***
	6.1/2"	5.3/4"					***
		6.1/8"					***
	6.7/8"	6.1/8"					***
		6.1/2"					***



All Models of ITZ Series covers complete range of hexagonal cassette within the torque range.

Pay attention to the "R" & "A" Values while selecting the models.

ITZ-2N			ITZ-4N			ITZ-8N			ITZ-14N			ITZ-30N		
Model	R	A	Model	R	A	Model	R	A	Model	R	A	Model	R	A
ITZ2N-R-19	27	16	ITZ4N-R-34	36	16	ITZ8N-R-41	46	22	ITZ14N-R-50	60	31	ITZ30N-R-85	78	28
ITZ2N-R-22	27	14	ITZ4N-R-36	36	15	ITZ8N-R-46	46	19	ITZ14N-R-55	60	28	ITZ30N-R-90	78	27
ITZ2N-R-27	27	11	ITZ4N-R-41	39	15	ITZ8N-R-50	46	17	ITZ14N-R-60	60	25	ITZ30N-R-95	83	28
ITZ2N-R-30	29	12	ITZ4N-R-46	42	15	ITZ8N-R-55	50	18	ITZ14N-R-65	60	22	ITZ30N-R-100	83	25
ITZ2N-R-32	29	11	ITZ4N-R-50	44	15	ITZ8N-R-60	52	17	ITZ14N-R-70	60	19	ITZ30N-R-105	89	28
ITZ2N-R-34	31	11	ITZ4N-R-55	46	14	ITZ8N-R-65	55	17	ITZ14N-R-75	63	19	ITZ30N-R-110	89	25
ITZ2N-R-36	31	10	ITZ4N-R-60	50	15	ITZ8N-R-70	58	17	ITZ14N-R-80	66	19	ITZ30N-R-115	95	28
ITZ2N-R-41	34	10	ITZ4N-R-65	53	15	ITZ8N-R-75	60	17	ITZ14N-R-85	69	19	ITZ30N-R-117	95	27
ITZ2N-R-46	37	10	ITZ4N-R-70	56	15	ITZ8N-R-80	63	16	ITZ14N-R-90	72	20	ITZ30N-R-120	95	25
ITZ2N-R-50	40	11	ITZ4N-R-75	59	15	ITZ8N-R-85	66	16	ITZ14N-R-95	74	19	ITZ30N-R-125	101	29
ITZ2N-R-55	43	11	ITZ4N-R-80	61	15	ITZ8N-R-90	69	17	ITZ14N-R-100	77	19	ITZ30N-R-130	101	26
ITZ2N-R-60	46	11				ITZ8N-R-95	71	16	ITZ14N-R-105	80	19	ITZ30N-R-135	104	26
						ITZ8N-R-100	75	17	ITZ14N-R-110	83	19	ITZ30N-R-140	110	29
						ITZ8N-R-100	78	17	ITZ14N-R-115	87	20	ITZ30N-R-145	110	26
									ITZ14N-R-117	87	19	ITZ30N-R-150	116	29
												ITZ30N-R-155	116	26
												ITZ30N-R-160	128	36
												ITZ30N-R-165	128	33

SPECIAL ACCESSORIES

Reaction Pad	
Extending Reaction Arm	

