

# SUBSEA TENSIONER

## STUD TENSIONER - SST

Bolt coverage from 3/4" to 4"  
only 8 tools, SST1 to SST8



Patented Quick Reaction Nut

## SST STUD TENSIONER

### Quick Reaction Subsea Tensioner

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

- Visible piston stroke indication
- Positive 'over-stroke' stop to prevent piston expulsion/ seal damage.
- Piston/cylinder misalignment compensation
- Anti-slip cylinder surface for improved handling
- Low friction seals
- Anti-corrosion coating
- Bolt coverage from M20 to M100 (3/4" to 4")
- Designed to fit BS1560/ANSI B16.5/API flanges, as well as most compact flange designs

**Made to Order, Consult Factory**

### Specifications and Dimensional Data

(Tool Reference)	Stud Diameter				Tool Load			Hydraulic Area		Approx. Wt.		Minimum Bolt Protrusion Above Nut				
	Load Cell Order No.	Metric	Quick Reaction Nut	3/4" to 4"	Ton	kN	Lbf	mm <sup>2</sup>	in <sup>2</sup>	kg	lb	Imp bolts		met bolts		
			Order No.	Imperial								Quick Reaction Nut Order No.	mm	in	mm	in
(SST1)	M20	QRNAS010004	3/4"	QRNAS010001	15.7	140	31,500	934	1.45	1.50	3.30	104	4.09	107	4.21	
	SSTAS010001	M22	QRNAS010005	7/8"								QRNAS010003	101	3.98	105	4.13
(SST2)	M24	QRNAS020004	1"	QRNAS020001	27	240	53,900	1,600	2.48	2.80	6.16	133	5.24	139	5.47	
	SSTAS020001	M27	QRNAS020005	1-1/8"								QRNAS020003	130	5.12	136	5.35
		M30	QRNAS020006	-								-	-	-	134	5.28
(SST3)	M33	QRNAS030005	1-1/4"	QRNAS030003	43	380	85,400	2,534	3.928	4	8.80	136	5.35	142	5.59	
	SSTAS030001	M36	QRNAS030006	1-3/8"								QRNAS030004	133	5.24	139	5.47
(SST4)	M39	QRNAS040005	1-1/2"	QRNAS040003	62	550	123,700	3,668	5.685	6	13.20	140	5.51	147	5.79	
	SSTAS040001	M42	QRNAS040006	1-5/8"								QRNAS040004	136	5.35	144	5.67
(SST5)	M45	QRNAS050005	1-3/4"	QRNAS050001	99	880	197,800	5,868	9.095	9	19.80	151	5.94	160	6.3	
	SSTAS050001	M48	QRNAS050006	1-7/8"								QRNAS050003	148	5.83	158	6.22
		M52	QRNAS050007	2"								QRNAS050004	145	5.71	154	6.06
(SST6)	M56	QRNAS060005	2-1/4"	QRNAS060001	175	1,560	351,000	10,411	16.137	14.7	32.34	166	6.54	178	7.01	
	SSTAS060001	M60	QRNAS060006	2-1/2"								QRNAS060003	160	6.30	175	6.89
		M64	QRNAS060007	2-3/4"								QRNAS060004	154	6.06	172	6.77
		M68	QRNAS060008	-								-	-	-	169	6.65
		M70	QRNAS060009	-								-	-	-	165	6.5
(SST7)	M76	QRNAS070005	3"	QRNAS070001	289	2,575	579,000	17,176	26.623	25	55	181	7.13	195	7.68	
	SSTAS070001	M80	QRNAS070006	3-1/4"								QRNAS070003	175	6.89	192	7.56
		M85	QRNAS070007	3-1/2"								QRNAS070004	169	6.65	188	7.40
		M90	QRNAS070008	-								-	-	-	184	7.24
(SST8)	M95	QRNAS080004	3-3/4"	QRNAS080001	388	3,447	775,300	22,997	35.645	39.1	86.02	205	8.07	224	8.82	
	SSTAS080001	M100	QRNAS080005	4"								QRNAS080003	199	7.83	220	8.66

In order to form a complete tensioner, order a load cell (SSTAS0#0001) and a Quick Reaction Nut (QRNAS0#00##).

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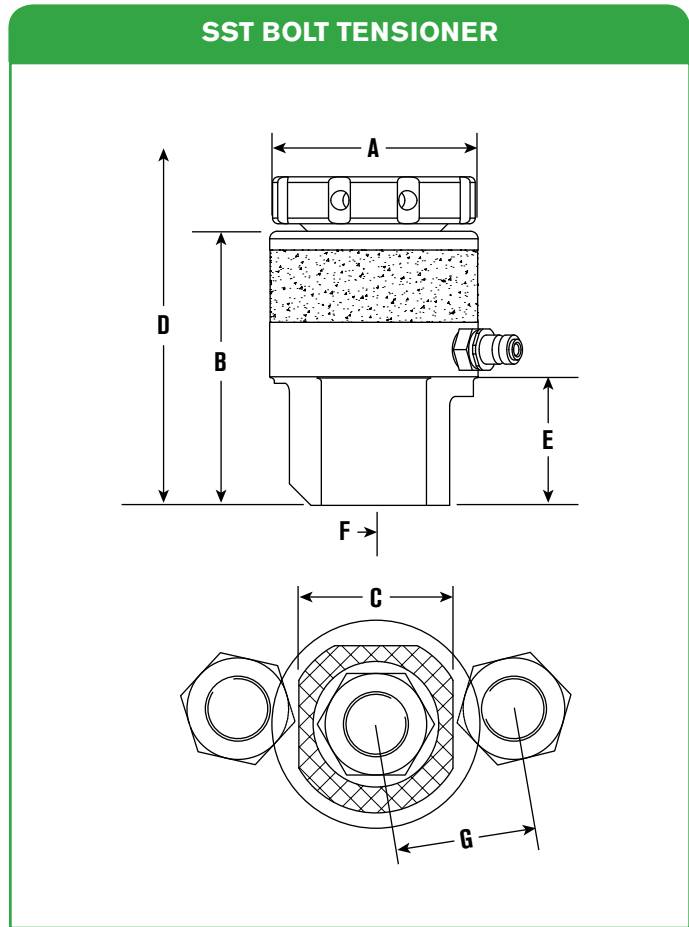
**Piston stroke:** 30mm (1.2") except for SST1 - 20mm (0.8")

**Max tool pressure:** 1,500 bar (21,750 psi)

**Bolt protrusion above nut:** refer to chart below for stud protrusion requirements

'D' includes an allowance for tool removal after bolt tightening with 30mm (1.2") tool stroke

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



A		B		C		D				E		F		G				Stud Diameter		(Tool Reference)
mm	in	mm	in	mm	in	Imp bolts		met bolts		mm	in	mm	in	mm	in	mm	in	Metric	Imperial	Load Cell Order No.
66	2.6	97	3.8	48	1.9	228	9	228	9	40	1.6	19	0.7	44	1.7	44	1.7	M20	3/4"	(SST1)
														46	1.8	45	1.8	M22	7/8"	SSTAS010001
82	3.2	127.5	5	60	2.4	296	11.7	296	11.7	56.5	2.2	24.5	1	55	2.2	54	2.1	M24	1"	(SST2)
														58	2.3	56	2.2	M27	1-1/8"	SSTAS020001
97	3.8	137	5.4	77	3	309	12.2	309	12.2	63	2.5	28	1.1	-	-	58	2.3	M30	-	(SST3)
														69	2.7	68	2.7	M33	1-1/4"	SSTAS030001
111	4.4	146	5.7	90	3.5	322	12.7	322	12.7	68	2.7	33.5	1.3	72	2.8	71	2.8	M36	1-3/8"	(SST4)
														81	3.2	81	3.2	M39	1-1/2"	SSTAS040001
136	5.4	158	6.2	114	4.5	342	13.5	342	13.5	77.5	3.1	40	1.6	84	3.3	84	3.3	M42	1-5/8"	(SST5)
														98	3.9	98	3.9	M45	1-3/4"	SSTAS050001
														101	4	101	4	M48	1-7/8"	
														104	4.1	104	4.1	M52	2"	
177	7	180.5	7.1	140	5.5	374	14.7	374	14.7	97	3.8	53	2.1	122	4.8	120	4.7	M56	2-1/4"	(SST6)
														128	5	123	4.8	M60	2-1/2"	SSTAS060001
														133	5.2	126	5	M64	2-3/4"	
														-	-	129	5.1	M68	-	
														-	-	132	5.2	M70	-	
217	8.5	202	8	180	7.1	409	16.1	409	16.1	117.5	4.6	88	3.5	159	6.3	155	6.1	M76	3"	(SST7)
														164	6.5	157	6.2	M80	3-1/4"	SSTAS070001
														170	6.7	160	6.3	M85	3-1/2"	
														-	-	166	6.5	M90	-	
248	9.8	230	9.1	210	8.3	480	18.9	480	18.9	128	5	85	3.3	190	7.5	184	7.2	M95	3-3/4"	(SST8)
														196	7.7	190	7.5	M100	4"	SSTAS080001



### ADVANCED BOLTING SOLUTIONS PVT. LTD.

HO: "ABS House", Plot No. W-116 (A),  
T.T.C. Industrial Area, MIDC Khairane,  
Navi Mumbai - 400 710.

Ph No: +91 82828 29795  
E-mail: lead@absgroup.in  
Web: www.absgroup.in