

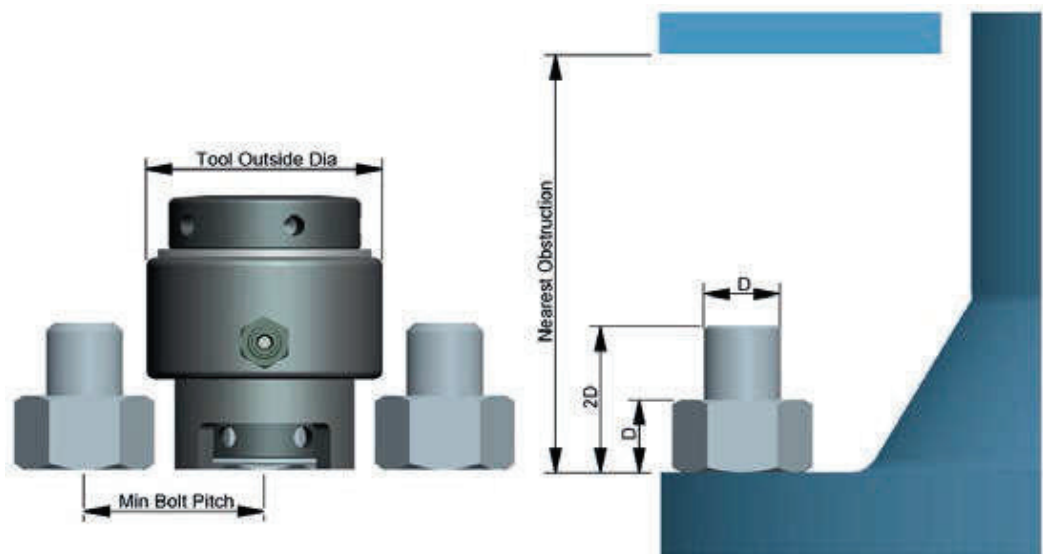


**HSR BOLT TENSIONER
Spring Return Bolt Tensioner**

- Unique quick release bridge adaptation
- Piston overstroke prevention
- Piston stroke indication
- Piston / cylinder misalignment compensation
- Bolt coverage from 1" to 3 1/2" with just 4 tools
- Designed to fit BS1560 / ANSI B16.5 / API flanges
- Fully enclosed load cell design eliminates entry of debris into piston retraction mechanism

The Spring Return design dramatically increases productivity and safety on the job site when compared to older technology manual return tensioners.

topside.



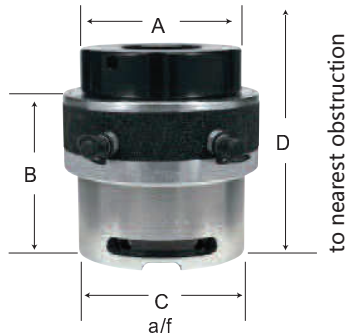
SPRING RETURN BOLT TENSIONER

Our spring return bolt tensioner reduces operator fatigue, saving time and improving safety and productivity.



Order a load cell and an adaptor kit to make a complete tensioner. each are sold separately.

Specifications and Dimensional Data



- Piston stroke - 10mm except for HS 0-8mm
- Max tool pressure - 21750psi(1500bar)
- Bolt protrusion above nut=1xbolt diameter
- "D" includes an allowance for tool removal after bolt tightening with 10mm tlls stroke
- Weight excludes puller sleeve
- Product development is constantly taking place and deimensions may change without notice

Load Cell	Stud Diameter	Tool Load	Tool Load		Hydraulic Area		A		B		C		D		Metric	
			Lbs	KN	in ²	mm ²	in	mm	in	mm	in	mm	Imp	mm	in	mm
HSR 0	3/4"	M20	35500	160	1.65	1067	2.6	66	3.7	93	2.5	63	5.4	136	5.5	142
	7/8"	M22							3.7	93	2.5	63	5.6	142	5.6	144
HSR 1	1.1/8"	M24	61950	280	2.89	1867	3.4	87	4.6	117	2.7	68	6.9	175	6.9	175
		M27							4.6	117	2.7	68	7.0	178		
HSR 2	1"	M24	99700	450	4.65	3001	4.1	103	4.6	117	3.0	75	6.9	175	6.9	175
	M27	4.6							117	3.0	75	7.0	178			
	M30	4.7							120	3.2	80	7.1	181	7.2	184	
	M33	4.8							123	3.3	84	7.4	188	7.5	190	
HSR 3	1.3/8"	M36	145950	660	6.82	4401	4.7	118	5.0	126	3.5	88	7.5	190	7.6	192
	1.1/4"	M33							4.8	123	3.5	88	7.5	190	7.6	192
	M36	5.0							126	3.8	96	7.8	197	7.8	198	
	M39	5.1							130	3.8	96	8.0	203	8.0	204	
HSR 4	1.5/8"	M42	223550	1000	10.34	6668	5.5	140.5	5.2	133	4.1	105	8.2	209	8.3	211
	1.1/2"	M39							5.2	132	4.4	112	8.3	211	8.4	212
	M42	5.3							135	4.5	114	8.5	217	8.6	218	
	M45	5.5							139	4.7	118	8.8	223	8.9	225	
HSR 5	1.7/8"	M48	331400	1500	15.50	10003	6.9	175.5	5.6	142	4.5	114	9.1	230	9.1	231
	2"	M52							5.7	145	4.7	120	9.3	236	9.8	248
	M56	6.1							154	5.4	138	10.2	259	10.2	258	
	M60	6.3							161	5.4	138	10.2	259	10.3	262	
HSR 6	2.1/4"	M64	553200	2500	25.84	16671	8.6	219	6.3	161	6.0	153	10.7	272	10.8	273
	M68	6.6							167	6.1	156	11.2	284	11.1	283	
	M72	6.6							167	6.2	157	11.6	294	11.7	297	
	M76	6.9							171	7.2	182	12.1	307	12.1	308	
HSR 7	3"	M80	708200	3200	33.06	21339	9.9	252	7.1	180	7.5	190	12.6	320	12.7	323
	M85	7.1							180	7.5	190	12.6	320	12.7	323	
	M90	7.3							186	8.1	205	13.1	332	13.2	334	
	M90	7.3							186	7.9	200	13.2	339	13.3	341	
HSR 7	3.1/4"	M95	708200	3200	33.06	21339	9.9	252	7.3	186	7.9	200	13.2	339	13.3	341
	3.1/2"	M95							7.3	186	7.9	200	13.2	339	13.3	341
HSR 7	3.3/4"	M100	708200	3200	33.06	21339	9.9	252	7.6	192	7.9	200	13.7	352	13.9	356
	4"	M100							7.6	192	7.9	200	13.7	352	13.9	356
HSR 7	3.3/4"	M100	708200	3200	33.06	21339	9.9	252	7.8	199	8.3	210	14.2	363		
	4"	M100							7.8	199	8.3	210	14.2	363		