



HYDRAJAC MODULAR

HYDRAJAC *description*

The HydraJac Stud Tensioner provides accurate and versatile tensioning of bolts and studs whilst being fast, simple and safe to use.

The HydraJac uses high pressure hydraulics to tension the bolt to the exact load required. Once the application has been tensioned, the nut is wound down the thread to retain the load. The HydraJac is then de-pressurised, released and ready to use again.

Any number of HydraJacs can be interlinked to provide even amounts of simultaneous tension over multiple studs or bolts as required.

Produced from high strength alloy steel, HydraJac Stud Tensioners are made in standard configurations. They can also be made to suit the requirements of a specific application.

HYDRAJAC *applications*

Typical HydraJac applications are found in many industries, including:

- Mining and quarrying
- Oil and gas industries
- Marine
- Power generation
- Agricultural
- Structural
- Heavy equipment in general industry
- Chemical plants

The HydraJac design allows for minimal bolt pitch and limited spaces common to flange joints and pipework.

HYDRAJAC *features*

The HydraJac provides the following advantages:

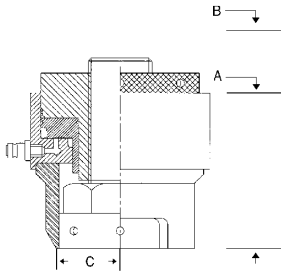
- Reduces maintenance down time
- Improves safety on the job by eliminating hammer tightening
- Gives reliable and precise tensioning
- Is user-friendly – fast to fit and remove
- Requires little physical effort
- Is ideal for confined spaces or difficult locations
- Multiple tensioning for leak-free flange makeup

Although smaller and lighter than many competitive types, HydraJac Stud Tensioners are capable of high application forces. The higher forces generated by HydraJac devices permit their use with bolts of very high tensile strength, for example, in bolting of highly stressed assemblies or those prone to destructive vibration.

Operation of HydraJac at typically lower charge pressures requires less use of costly pumping equipment, and with an improved degree of safety. All HydraJac Tensioners are designed to use inexpensive seals which can be easily replaced in minutes, eliminating expensive repairs.



HYDRAJAC *technical specifications*



The A3 HydraJAC features a modular design which adapts for multiple thread options.

HydraJAC Stud Tensioners are made in standard types:

- "A2" Models are dedicated to a single designated thread size.
- "A3" Models (shown here) can be used with a range of thread types and bolts in conjunction with suitable Adaptor Nuts. Application pressures are read from prepared charts supplied with the equipment.

HydraJAC A2 and A3 Models have been specifically developed for use with flange couplings commonly used in hydrocarbon and chemical process plants.

Although rated to pressures of 100MPa, the HydraJAC will typically require less than this for most applications. "Commercial" (mild steel) fasteners can typically be tensioned at charge pressures below 70MPa.

All HydraJAC Stud Tensioners have exceptional working stroke length from a minimum of 15 mm for the smallest units.



A3 Model HydraJAC components.



A3 HydraJACs.



Test charging a custom-built HydraJAC.

HYDRAJAC A3 MODEL SPECIFICATIONS

Load Cell No.	Size Imp.	Size ISO	Adaptor Kit No.	Max Load @ 100 MPA (14500 psi)	O.D. (mm)	Min Pitch (mm)	Relief (C) (mm)	Height (A) (mm)	Clearance (B) (mm)				
T1	3/4"	M16	T1-1	152.1	70	49	23	85	143				
		M18	T1-2							87	145		
		M20	T1-3							87	145		
	7/8"	M22	T1-4							51	26	89	147
		M22	T1-5							51	26	91	149
		M22	T1-6							51	26	92	150
T2	1"	M24	T2-1	240.9	84	59	29	112	182				
			T2-2							59	112	182	
	1 1/8"	T2-3	60							32	115	185	
		T2-4	60							32	115	185	
T3	1 1/4"	M30	T3-1	363	100	72	36	117	187				
			T3-2							73	118	188	
	1 3/8"	M33	T3-3							73	120	190	
		M36	T3-4							76	39	122	192
		M36	T3-5							76	39	123	193
T4	1 1/4"	M33	T4-1	444.5	110	77	36	122	198				
			T4-2							77	123	199	
	1 3/8"	M36	T4-3							78	39	125	201
		M36	T4-4							78	39	126	202
		M39	T4-5							80	42	128	204
1 1/2"	M39	T4-6	80	42	129	205							
T5	1 1/2"	M39	T5-1	643.2	130	89	42	133	208				
			T5-2							89	135	210	
	1 5/8"	M42	T5-3							91	45	137	212
		M45	T5-4							91	45	137	212
		M45	T5-5							94	49	140	215
1 3/4"	M45	T5-6	94	49	140	215							
T6	1 5/8"	M42	T6-1	811.1	145	99	45	135	208				
			T6-2							99	135	208	
	1 3/4"	M45	T6-3							101	49	138	211
		M45	T6-4							101	49	138	211
		M48	T6-5							102	51	141	214
	1 7/8"	M48	T6-6							102	51	141	214
			T6-7							105	54	144	217
	2"	M52	T6-8							105	54	145	218
T7	1 7/8"	M48	T7-1	997.9	158	110	51	150	228				
			T7-2							110	150	228	
	2"	M52	T7-3							112	54	154	232
		M52	T7-4							112	54	154	232
	2 1/4"	M56	T7-5							119	59	160	238
			T7-6							119	59	158	236
T8	2 1/4"	M56	T8-1	1267	180	124	59	168	263				
			T8-2							124	167	262	
	2 1/2"	M60	T8-3							131	65	171	266
		M64	T8-4							131	65	175	270
		M64	T8-5							131	65	175	270
T9	2 1/2"	M64	T9-1	1672.4	198	136	65	172	264				
			T9-2							136	172	264	
	2 3/4"	M68	T9-3							146	71	176	268
		M72	T9-4							146	71	178	270
		M72	T9-5							146	71	180	272
T10	2 3/4"	M72	T10-1	1935.3	215	150	71	185	277				
			T10-2							150	186	278	
	3"	M76	T10-3							157	77	190	282
		M76	T10-4							157	77	190	282
T11	3"	M76	T11-1	2518	238	161	77	188	280				
			T11-2							161	188	280	
	3 1/4"	M80	T11-3							163	77	192	284
		M85	T11-4							175	87	195	287
			T11-5							175	87	197	289
	3 1/2"	M90	T11-6							177	93	202	294
			T11-7							177	93	202	294
			T11-7							177	93	202	294
T12	3 3/4"	M95	T12-1	3284.1	276	202	99	208	307				
			T12-2							202	208	307	
	4"	M100	T12-3							212	105	215	314
			T12-4							212	105	215	314
			T12-4							212	105	215	314

Components ordered as complete tool, e.g. T4/T4-4 for M36 or Adaptor Kit only.

NOTE: Stroke for all models is 15mm.

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