

Title: RECOMMENDED ACTUATOR MOUNTING SCREW TIGHTENING TORQUES

NOTE: This chart is provided for guidance only. If in doubt, refer to screw manufacturer's data.

METRIC UNITS

Actuator Size	Thread Size (mm)	No. of Screws	PCD (mm)	Recommended Tightening Torque (Nm)	
				@ 5.5 Bar	@ 7 Bar
024	4	4	25.50	1.7	2.4
034	5	4	31.10	4.0	5.0
054	5	6	34.90	4.6	6.0*
074	8	4	50.90	18.0	23.0
084	8	4	70.00	20.9	26.3
094	10	4	65.00	35.7	45.0
103	10	4	102.00	36.3	46.0
124	12	4	77.80	83.5	104.0*
144	16	4	98.80	200.0	220.0*
154	16	4	140.00	200.0	220.0*
164	24	4	152.70	455.0	570.0*
184	30	4	226.30	840.0*	1050.0*
204/214	30	8	226.30	778.0*	980.0*
304	30	8	226.30	1000.0*	1100.0*
604	30	8	356.00	1250.0*	1400.0*

ENGLISH UNITS

Actuator Size	Thread Size	No. of Screws	PCD (inches)	Recommended Tightening Torque (lbf.in)	
				@ 80 psi	@ 100 psi
027	8-32 UNC	4	1.00	17	21
037	10-24 UNC	4	1.22	32	40
057	10-24 UNC	6	1.37	38	48*
077	5/16 UNC	4	2.00	157	197
087	5/16 UNC	4	2.76	180	225
097	3/8 UNC	4	2.56	310	390
107	3/8 UNC	4	4.02	316	395
127	1/2 UNC	4	3.06	770	980*
147	5/8 UNC	4	3.89	1770	1950*
157	5/8 UNC	4	5.51	1770	1950*
167	7/8 UNC	4	6.01	3660	4600*
187	1 1/8 UNC	4	8.91	7090*	8870*
207/217	1 1/8 UNC	8	8.91	6560*	8195*
307	1 1/8 UNC	8	8.91	8850*	9736*
607	1 1/8 UNC	8	14.02	11063*	12391*

- The above data assumes that the mounting surfaces are flat and exhibit a coefficient of friction 0.2 (e.g. two painted surfaces) and provides a minimum safety factor of 1.8 to allow for shock loading.
- Screw thread engagement should be at least 75% of the maximum available.
- The torques stated assume full double acting actuator torque at the air pressures specified. For reduced air supply pressures, these torques can be reduced in proportion to the reduction in actuator output torque.
- The type of screw (i.e. Hexhead or socket head) does not affect the recommended torque.
- For sizes marked thus "*" use high tensile steel screws (minimum grade 8.8 BS3692) or high tensile stainless steel screws (minimum grade A2-70 or A4-70 ISO3506).
Ensure that if zinc plating is applied to screws, they do not suffer from "hydrogen embrittlement".

Issue	Signed	Date	KINETROL Trading Estate Farnham Surrey England	Doc.No. TD111
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