

Standard Tightening Torque

For assembling two parts in Tsurumi products, mostly threaded parts such as bolts and nuts are used, which have to be tightened with the appropriate tightening torque. The table below shows the standard tightening torque according to the bolt size. Please refer to this chart when overhauling or repairing Tsurumi products.

Typically, impact wrenches are used to tighten threaded parts. It should be adjusted to the standard tightening torque for each size. Also, when tightening stainless bolt or stainless nut to other stainless steel parts, it is necessary to put anti-seize or anti-galling lubricants on the bolts. Then, tighten them slowly by hand before tightening with an impact wrench for prevention of thread galling. It is also recommended to check the tightening torque with a torque wrench afterwards.

Screw Size	Material of Female-Threaded Part								
	Cast Iron (FC/FCD) or Aluminum Die-Casting (ADC)			Steel (SS400)			Stainless Steel (SUS)		
	Ave.	Min.	Max.	Ave.	Min.	Max.	Ave.	Min.	Max.
M4	1.1	0.87	1.3	1.5	1.2	1.8	1.8	1.5	2.2
M5	2.2	1.7	2.6	2.9	2.4	3.5	3.6	2.9	4.4
M6	3.6	2.9	4.4	5.0	4.0	6.0	6.2	4.9	7.4
M8	8.9	7.1	11	12	9.8	15	15	12.1	18
M10	18	14	21	24	20	29	30	24	36
M12	31	25	37	43	34	51	52	42	63
M16	77	61	92	106	85	127	130	104	156
M20	150	120	180	206	165	248	253	202	303
M24	259	207	310	357	286	428	437	350	525
M30	514	411	617	709	567	851	869	695	1042
M36	900	720	1080	1240	992	1488	1520	1216	1824
M42	1450	1160	1740	2000	1600	2400	2450	1960	2940
M48	2140	1712	2568	2950	2360	3540	3610	2888	4332

Units of the torque values in the table above are Nm.