



# U.S. RECOMMENDED BOLT TORQUE

Size	Recommended Torque											
	Grade 2		Grade 5		Grade 8		18-8 S/S		Bronze		Brass	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-	4.8	-	4.3	-
#6*	-	-	-	-	-	-	9.6	-	8.9	-	7.9	-
#8*	-	-	-	-	-	-	19.8	-	18.4	-	16.2	-
#10*	-	-	-	-	-	-	22.8	31.7	21.2	29.3	18.6	25.9
1/4"	4	4.7	6.3	7.3	9	10	6.3	7.8	5.7	7.3	5.1	6.4
5/16"	8	9	13	14	18	20	11	11.8	10.3	10.9	8.9	9.7
3/8"	15	17	23	26	33	37	20	22	18	20	16	18
7/16"	24	27	37	41	52	58	31	33	29	31	26	27
1/2"	37	41	57	64	80	90	43	45	40	42	35	37
9/16"	53	59	82	91	115	129	57	63	53	58	47	51
5/8"	73	83	112	128	159	180	93	104	86	96	76	85
3/4"	125	138	200	223	282	315	128	124	104	102	118	115
7/8"	129	144	322	355	454	501	194	193	178	178	159	158
1"†	188	210	483	541	682	764	287	289	265	240	235	212

\* Sizes from #4 to #10 are in lb-in.  
 Sizes from 1/4" up are in lb-ft.  
 † Fine thread figures are for 1"-14.  
 Grade 2, 5, and 8 values are for slightly lubricated bolts.