

Bolt Torque Chart (ft-lb, Dry)

Recommended dry assembly torque for SAE hex bolts by size and grade.

Bolt size	Grade 2 (ft-lb)	Grade 5 (ft-lb)	Grade 8 (ft-lb)
1/4-20	5	8	12
5/16-18	11	17	25
3/8-16	20	31	44
7/16-14	32	49	70
1/2-13	49	75	106
9/16-12	70	109	154
5/8-11	97	150	212
3/4-10	172	266	376

*Note: Computed from $T = K \cdot D \cdot F$ with $K = 0.20$.
typically need 20-30% less torque. Verify again*

Reference values only — verify against the governing standard or manufacturer before use.