

Torque Chart

Bolts Steel Tension	Bolts Steel Tension		Bolts Aluminum		
	AN 3 thru AN 20	MS 20004 thru MS 20024	AN 3DD thru AN 20DD		
An 42 thru AN 49	NAS 144 thru NAS 158	AN 173DD thru AN 186DD			
AN 73 thru AN 81	NAS 333 thru NAS 340	AN 509DD			
AN 173 thru AN 186	NAS 583 thru NAS 590	AN 525D			
MS 20033 thru MS 20046	NAS 624 thru NAS 644	MS 27039D			
MS 20073	NAS 1303 thru NAS 1320	MS 24694DD			
MS 20074	NAS 172				
AN 509 NK9	NAS 174				
MS 24694	NAS 517				
AN 525 ND 525					
MS 27039	Steel shear bolt - NAS 464				
Nuts		Nuts		Nuts	
Steel Tension	Steel Shear	Steel Tension	Steel Shear	Alum. Tension	Alum. Shear
AN 310	AN 320	AN 319	AN 320	AN 365D	AN 320D
AN 315	AN 364	AN 315	AN 364	AN 310D	AN 364D
AN 363	NAS 1022	AN 363	NAS 1022	NAS 1021D	NAS 1022D
AN 365	MS 17826	AN 365	MS 17826		
NAS 1021	MS 20364	MS 17825	MS 20364		
MS 17825		MS 20365			
MS 21045		MS 21045			
MS 20365		NAS 1021			
MS 20500		NAS 679			
NAS 679		NAS 1291			

Fine Thread Series

Nut-bolt size	Torque Limits in.-lbs.		Torque Limits in.-lbs.		Torque Limits in.-lbs.		Torque Limits in.-lbs.	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
8-36	12	15	7	9	--	--	5	10
10-32	20	25	12	15	25	30	10	15
1/4-28	50	70	30	40	80	100	30	45
5/16-24	100	140	60	85	120	145	40	65
3/8-24	160	190	95	110	200	250	75	110
7/16-24	450	500	270	300	520	630	180	280
1/2-20	480	690	290	410	770	950	280	410
9/16-18	800	1,000	480	600	1,100	1,300	380	580
5/8-18	1,100	1,300	660	780	1,250	1,550	550	670
3/4-16	2,300	2,500	1,300	1,500	2,650	3,200	950	1,250
7/8-14	2,500	3,000	1,500	1,800	3,550	4,350	1,250	1,900
1-14	3,700	4,500	2,200	3,300	4,500	5,500	1,600	2,400
1 1/8-12	5,000	7,000	3,000	4,200	6,000	7,300	2,100	3,200
1 1/4-12	9,000	11,000	5,400	6,600	11,000	13,400	3,900	5,600

Note: All bolts should be torqued according to the above chart unless otherwise specified.

