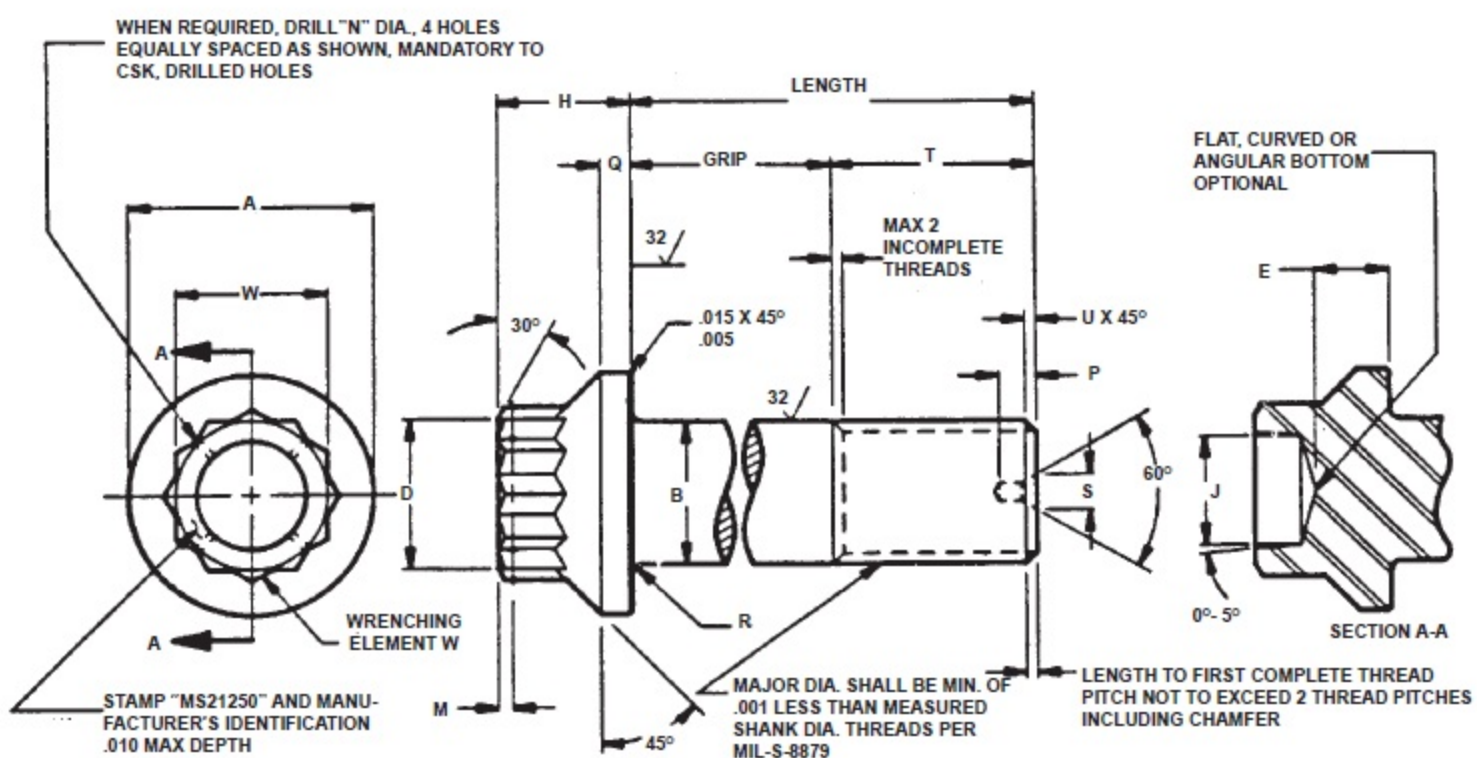


# MS21250 Series Specifications

**Bolt, Steel, External Wrenching**  
**180,000 PSI Tensile, 450°F, 12 Point**



Dash No.	Thread MIL-S-8879	A Dia.	B Dia.	Nom Size W	D Dia	E Min	H	J + .010 - .030	M	N Dia ± .005	P Max	Q	R	S Max	T Min	U ± .016
02	.1640-32 UNJC-3A	.300 .290	.1635 .1625	0.2188	.219 .204	0.076	0.250	0.100	.062	.037	-	0.050	.041 .031	-	0.385	.031
03	.1900-32 UNJF-3A	.350 .340	.1895 .1885	0.250	.250 .235	0.092	0.265	0.125	.062	.037	-	0.055	.041 .031	-	0.420	.031
04	.2500-28 UNJF-3A	.438 .428	.2495 .2485	0.3125	.312 .297	0.135	0.300	0.180	.062	.037	-	0.069	.041 .031	-	0.492	.031
05	.3125-24 UNJF-3A	.531 .521	.3120 .3110	0.375	.375 .360	0.162	0.348	0.215	.070	.055	-	0.082	.041 .031	-	0.579	.047
06	.3750-24 UNJF-3A	.649 .639	.3745 .3735	0.4375	.437 .422	0.197	0.388	0.260	.070	.055	-	0.091	.057 .047	-	0.625	.047
07	.4375-20 UNJF-3A	.750 .740	.4370 .4360	0.500	.500 .485	0.228	0.435	0.320	.070	.055	-	0.099	.057 .047	-	0.721	.047
08	.5000-20 UNJF-3A	.828 .818	.4995 .4985	0.5625	.562 .547	0.254	0.504	0.380	.094	.055	-	0.123	.057 .047	-	0.768	.047
09	.5625-18 UNJF-3A	.938 .928	.5615 .5605	0.625	.625 .610	0.287	0.557	0.440	.094	.055	-	0.133	.057 .047	-	0.852	.062
10	.6250-18 UNJF-3A	1.050 1.040	.6240 .6230	0.6875	.687 .672	0.327	0.618	0.500	.094	.055	-	0.150	.073 .063	-	0.899	.062
12	.7500-16 UNJF-3A	1.230 1.220	.7490 .7480	0.8125	.812 .797	0.380	0.711	0.570	.094	.055	.200	0.178	.073 .063	.187	1.036	.062
14	.8750-14 UNJF-3A	1.438 1.428	.8740 .8730	0.9375	.937 .922	0.438	0.808	0.650	.125	.055	.260	0.198	.073 .063	.187	1.244	.078
16	1.000-12 UNJF-3A	1.625 1.615	.9990 .9980	1.0625	1.062 1.047	0.493	0.923	0.740	.125	.055	.260	0.222	.073 .063	.250	1.479	.078

## MS21250-xyyy

Overall (underhead) length (± .015") in each diameter is read at the intersection of diameter and grip length, e.g. MS21250-07040 = 3.241

HOW TO READ THE PART NUMBER:	* "xx" indicates Diameter;	** "yyy" indicates Grip Length
MS21250-xyyy	MS21250-07040 = 7/16" Diameter	MS21250-07040 = 40/16" = 2.5" Grip Length
For example: MS21250-07040		

GRIP LENGTH of bolts shall be measured from underside of head to the end of full cylindrical portion of the shank. DASH NO. indicates preferred lengths in 0.125" increments.

*xx →	Dash No.	Grip ± .010	02	03	04	05	06	07	08	09	10	12	14	16
**yyy ↓	004	0.250	0.655	0.690	0.762	0.849	0.895	0.991	1.038	-	-	-	-	-
	006	0.375	0.780	0.815	0.887	0.974	1.020	1.116	1.163	1.247	1.294	1.431	-	-
	008	0.500	0.905	0.940	1.012	1.099	1.145	1.241	1.288	1.372	1.419	1.556	1.764	1.999
	010	0.625	1.030	1.065	1.137	1.224	1.270	1.366	1.413	1.497	1.544	1.681	1.889	2.124
	012	0.750	1.155	1.190	1.262	1.349	1.395	1.491	1.538	1.622	1.669	1.806	2.014	2.249
	014	0.875	1.280	1.315	1.387	1.474	1.520	1.616	1.663	1.747	1.794	1.931	2.139	2.374
	016	1.000	1.405	1.440	1.512	1.599	1.645	1.741	1.788	1.872	1.919	2.056	2.264	2.499
	018	1.125	1.530	1.565	1.637	1.724	1.770	1.866	1.913	1.997	2.044	2.181	2.389	2.624
	020	1.250	1.655	1.690	1.762	1.849	1.895	1.991	2.038	2.122	2.169	2.306	2.514	2.749
	022	1.375	1.780	1.815	1.887	1.974	2.020	2.116	2.163	2.247	2.294	2.431	2.639	2.874
	024	1.500	1.905	1.940	2.012	2.099	2.145	2.241	2.288	2.372	2.419	2.556	2.764	2.999
	026	1.625	2.030	2.065	2.137	2.224	2.270	2.366	2.413	2.497	2.544	2.681	2.889	3.124
	028	1.750	2.155	2.190	2.262	2.349	2.395	2.491	2.538	2.622	2.669	2.806	3.014	3.249
	030	1.875	2.280	2.315	2.387	2.474	2.520	2.616	2.663	2.747	2.794	2.931	3.139	3.374
	032	2.000	2.405	2.440	2.512	2.599	2.645	2.741	2.788	2.872	2.919	3.056	3.264	3.499
	034	2.125	2.530	2.565	2.637	2.724	2.770	2.866	2.913	2.997	3.044	3.181	3.389	3.624
	036	2.250	2.655	2.690	2.762	2.849	2.895	2.991	3.038	3.122	3.169	3.306	3.514	3.749
	038	2.375	2.780	2.815	2.887	2.974	3.020	3.116	3.163	3.247	3.294	3.431	3.639	3.874
	040	2.500	2.905	2.940	3.012	3.099	3.145	3.241	3.288	3.372	3.419	3.556	3.764	3.999
	042	2.625	3.030	3.065	3.137	3.224	3.270	3.366	3.413	3.497	3.544	3.681	3.889	4.124
	044	2.750	3.155	3.190	3.262	3.349	3.395	3.491	3.538	3.622	3.669	3.806	4.014	4.249
	046	2.875	3.280	3.315	3.387	3.474	3.520	3.616	3.663	3.747	3.794	3.931	4.139	4.374
	048	3.000	3.405	3.440	3.512	3.599	3.645	3.741	3.788	3.872	3.919	4.056	4.264	4.499
	050	3.125	3.530	3.565	3.637	3.724	3.770	3.866	3.913	3.997	4.044	4.181	4.389	4.624
	052	3.250	3.655	3.690	3.762	3.849	3.895	3.991	4.038	4.122	4.169	4.306	4.514	4.749
	054	3.375	3.780	3.815	3.887	3.974	4.020	4.116	4.163	4.247	4.294	4.431	4.639	4.874
	056	3.500	3.905	3.940	4.012	4.099	4.145	4.241	4.288	4.372	4.419	4.556	4.764	4.999
	058	3.625	4.030	4.065	4.137	4.224	4.270	4.366	4.413	4.497	4.544	4.681	4.889	5.124
	060	3.750	4.155	4.190	4.262	4.349	4.395	4.491	4.538	4.622	4.669	4.806	5.014	5.249
	062	3.875	4.280	4.315	4.387	4.474	4.520	4.616	4.663	4.747	4.794	4.931	5.139	5.374
	064	4.000	4.405	4.440	4.512	4.599	4.645	4.741	4.788	4.872	4.919	5.056	5.264	5.499
	066	4.125	4.530	4.565	4.637	4.724	4.770	4.866	4.913	4.997	5.044	5.181	5.389	5.624
	068	4.250	4.655	4.690	4.762	4.849	4.895	4.991	5.038	5.122	5.169	5.306	5.514	5.749
	070	4.375	4.780	4.815	4.887	4.974	5.020	5.116	5.163	5.247	5.294	5.431	5.639	5.874
	072	4.500	4.905	4.940	5.012	5.099	5.145	5.241	5.288	5.372	5.419	5.556	5.764	5.999
	074	4.625	5.030	5.065	5.137	5.224	5.270	5.366	5.413	5.497	5.544	5.681	5.889	6.124
	076	4.750	5.155	5.190	5.262	5.349	5.395	5.491	5.538	5.622	5.669	5.806	6.014	6.249
	078	4.875	5.280	5.315	5.387	5.474	5.520	5.616	5.663	5.747	5.794	5.931	6.139	6.374
	080	5.000	5.405	5.440	5.512	5.599	5.645	5.741	5.788	5.872	5.919	6.056	6.264	6.499
	082	5.125	5.530	5.565	5.637	5.724	5.770	5.866	5.913	5.997	6.044	6.181	6.389	6.624
	084	5.250	5.655	5.690	5.762	5.849	5.895	5.991	6.038	6.122	6.169	6.306	6.514	6.749
	086	5.375	5.780	5.815	5.887	5.974	6.020	6.116	6.163	6.247	6.294	6.431	6.639	6.874
	088	5.500	5.905	5.940	6.012	6.099	6.145	6.241	6.288	6.372	6.419	6.556	6.764	6.999
	090	5.625	6.030	6.065	6.137	6.224	6.270	6.366	6.413	6.497	6.544	6.681	6.889	7.124
	092	5.750	6.155	6.190	6.262	6.349	6.395	6.491	6.538	6.622	6.669	6.806	7.014	7.249
	094	5.875	6.280	6.315	6.387	6.474	6.520	6.616	6.663	6.747	6.794	6.931	7.139	7.374
	096	6.000	6.405	6.440	6.512	6.599	6.645	6.741	6.788	6.872	6.919	7.056	7.264	7.499