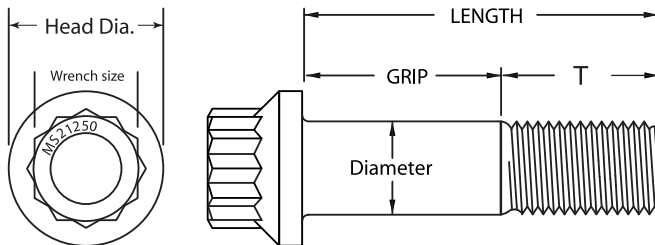


MS21250, 12 Point Bolts

Diameter / Head Size / Thread Lengths



HELP WITH THE SELECTION OF PART NUMBERS

The first five numbers after MS designates the Design of the bolt.

12 point, Alloy Steel, Heat Treated to 180 to 200 ksi Tensile Strength, Cadmium II, type 2 plate per QQP416.

The next two numbers after the (-) or the (H) designates the Diameter.

The next three numbers directly after the Diameter number designates the Grip length.

There is no dash or other characters in between the Diameter number and the Grip length number.

Examples of part numbers:

MS21250 (" - " for no holes in head, "H" for safety holes in head) (Diameter #) (Grip Length Number)

MS21250 - 04012 =1/4 DIAMETER, 28 THREADS PER INCH, .750 GRIP, 1.260 OVERALL LENGTH NO SAFETY HOLES IN HEAD.

MS21250H10020 =5/8 DIAMETER, 16 THREADS PER INCH, 1.250 GRIP, 2.169 OVERALL LENGTH SAFETY HOLES IN HEAD.

Diameter #	THREAD DIA/PITCH	DIA. MAX	DIA. MIN	WRENCH SIZE	" T " DIMENSION	HEAD DIA. + 0R - .005
02	8-32	.1635	.1625	7/32	.375	.295
03	10-32	.1895	.1885	1/4	.420	.345
04	1/4-28	.2495	.2485	5/16	.492	.433
05	5/16-24	.3120	.3110	3/8	.579	.526
06	3/8-24	.3745	.3735	7/16	.625	.645
07	7/16-20	.4370	.4360	1/2	.721	.730
08	1/2-20	.4995	.4985	9/16	.768	.825
09	9/16-18	.5615	.5605	5/8	.852	.933
10	5/8-18	.6240	.6230	11/16	.899	1.045
12	3/4-16	.7490	.7480	13/16	1.036	1.225
14	7/8-14	.8740	.8730	15/16	1.244	1.433
16	1 "-12	.9990	.9980	1 1/16	1.479	1.620
18	1 1/8"-12	1.1240	1.235	1 1/4	1.650	1.870
20	1 1/4"-12	1.2490	1.2475	1 5/16	1.760	2.120
22	1 3/8"-12	1.3740	1.3725	1 7/16	1.885	2.308

Genuine Aircraft Hardware Co.

MS21250, 12 Point Bolts

Grip Lengths / Overall Lengths

Grip Dash Number	Grip + or- .010	For Overall Lengths see below																							
		Diameter Dash Numbers																							
		02	03	04	05	06	07	08	09	10	12	14	16	18	20	22	24								
004	0.250	0.655	0.690	0.762	0.849	0.895	0.991	1.038	Not Available																
005	0.313	0.718	0.753	0.825	0.912	0.958	1.054	1.101																	
006	0.375	0.780	0.815	0.887	0.974	1.020	1.116	1.163										1.247	1.294	1.431					
007	0.438	0.843	0.878	0.950	1.037	1.083	1.179	1.226										1.310	1.357	1.494					
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	2.170											
009	0.563	0.968	1.003	1.075	1.162	1.208	1.304	1.351	1.435	1.482	1.619	1.827	2.062	2.233											
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	2.295	2.405	2.530	2.655								
011	0.688	1.093	1.128	1.200	1.287	1.333	1.429	1.476	1.560	1.607	1.744	1.952	2.187	2.358	2.468	2.593	2.718								
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	2.420	2.530	2.655	2.780								
013	0.813	1.218	1.253	1.325	1.412	1.458	1.554	1.601	1.685	1.732	1.869	2.077	2.312	2.483	2.593	2.718	2.843								
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	2.545	2.655	2.780	2.905								
015	0.938	1.343	1.378	1.450	1.537	1.583	1.679	1.726	1.810	1.857	1.994	2.202	2.437	2.608	2.718	2.843	2.968								
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	2.670	2.780	2.905	3.030								
017	1.063	1.468	1.503	1.575	1.662	1.708	1.804	1.851	1.935	1.982	2.119	2.327	2.562	2.733	2.843	2.968	3.093								
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	2.795	2.905	3.030	3.155								
019	1.188	1.593	1.628	1.700	1.787	1.833	1.929	1.976	2.060	2.107	2.244	2.452	2.687	2.858	2.968	3.093	3.218								
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	2.920	3.030	3.155	3.280								
021	1.313	1.718	1.753	1.825	1.912	1.958	2.054	2.101	2.185	2.232	2.369	2.577	2.812	2.983	3.093	3.218	3.343								
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	3.045	3.155	3.280	3.405								
023	1.438	1.843	1.878	1.950	2.037	2.083	2.179	2.226	2.310	2.357	2.494	2.702	2.937	3.108	3.218	3.343	3.468								
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	3.170	3.280	3.405	3.530								
025	1.563	1.968	2.003	2.075	2.162	2.208	2.304	2.351	2.435	2.482	2.619	2.827	3.062	3.233	3.343	3.468	3.593								
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	3.295	3.405	3.530	3.655								
027	1.688	2.093	2.128	2.200	2.287	2.333	2.429	2.476	2.560	2.607	2.744	2.952	3.187	3.358	3.468	3.593	3.718								
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	3.420	3.530	3.655	3.780								
029	1.813	2.218	2.253	2.325	2.412	2.458	2.554	2.601	2.685	2.732	2.869	3.077	3.312	3.483	3.593	3.718	3.843								
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	3.545	3.655	3.780	3.905								
031	1.938	2.343	2.378	2.450	2.537	2.583	2.679	2.726	2.810	2.857	2.994	3.202	3.437	3.608	3.718	3.843	3.968								
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	3.670	3.780	3.905	4.030								
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	3.795	3.905	4.030	4.155								
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	3.920	4.030	4.155	4.280								
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	4.045	4.155	4.280	4.405								
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	4.170	4.280	4.405	4.530								
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	4.295	4.405	4.530	4.655								
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	4.420	4.530	4.655	4.780								
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	4.545	4.655	4.780	4.905								
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	4.670	4.780	4.905	5.030								
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	4.795	4.905	5.030	5.155								
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	4.920	5.030	5.155	5.280								
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	5.045	5.155	5.280	5.405								
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	5.170	5.280	5.405	5.530								
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	5.295	5.405	5.530	5.655								
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	5.420	5.530	5.655	5.780								
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	5.545	5.655	5.780	5.905								
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	5.670	5.780	5.905	6.030								
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	5.795	5.905	6.030	6.155								
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	5.920	6.030	6.155	6.280								
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	6.045	6.155	6.280	6.405								
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	6.170	6.280	6.405	6.530								