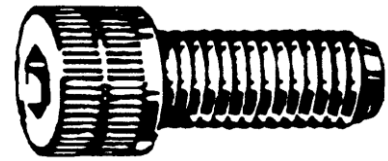


SOCKET CAP SCREWS



Nominal Size	Tensile Strength (lbs., min.)		Yield Strength (lbs., min.)		Body Section	Tightening Torque (In.-Lbs.)	
	UNRC	UNRF	UNRC	UNRF	Single Shear Strength (lbs., min.)	UNRC	UNRF
0	-	320	-	290	305	-	2.6
1	475	500	425	450	450..	4.5	4.8
2	665	710	600	635	625	7.5	8.0
3	875	940	790	845	830 .:	11.0	12.0
4	1,090	1,190	975	1,070	1,060	16.0	18.0
5	1,430	1,490	1,290	1,345	1,325	24.0	24.0
6	1,640	1,825	1,470	1,645	1,615	30.0	34.0
8	2,520	2,650	2,270	2,385	2,280	55.0	58.0
10	3,150	3,600	2,835	3,240		79.0	90.0
1/4	5,725	6,550	5,150	5,900	5,295	200.0	230.0
5/16	9,430	10,440	8,490	9,395	8,285	415.0	460.0
3/8	13,950	15,805	12,555	14,225	11,910	740.0	845.0
7/16	19,135	21,365	17,220	19,230	16,200	1190.0	1305.0
1/2	25,540	28,780	22,990	25,905	21,175	1800.0	2065.0
5/8	38,400	43,500	34,550	39,150	31,300	3,400.0	3,800.0
3/4	56,750	63,400	51,100	57,050	45,050	6,000.0	6,750.0
7/8	78,500	86,500	70,700	77,850	61,350	8250.0	9,200.0
1	103,000	112,700	92,700	101,450	80,100	12,500.0	13,000.0
1 1/4	164,700	182,400	148,250	164,150	125,100	25,000.0	27,750.0
1 1/2	238,800	268,800	215,950	241,900	180,200	43500.0	49,000.0

Description	An externally threaded fastener with unified threads, a cylindrical head with a flat chamfered top surface, knurled cylindrical sides and hexagonal recess, made from alloy steel.
Applications/ Advantages	Ideal for precision assembly work with close tolerances and applications needing a well tooled appearance. Supplies greater tensile strength than equivalent sizes of Grade-5 or Grade-8 hex head cap screws while requiring less surface area or counterbore since the fastener is internally wrenched.
Material	Cap screws shall be made from an alloy steel which conforms to the following chemical composition requirements (per product analysis) -- <i>Carbon</i> : 0.31% minimum; <i>Phosphorus</i> : 0.040% maximum; <i>Sulfur</i> : 0.045% maximum. Also, one or more of the following elements shall be present in sufficient quantity to meet the strength requirements listed below: chromium, nickel, molybdenum or vanadium.
Heat Treatment	Cap screws shall be heat treated by oil quenching from above the transformation temperature and then tempered at a temperature not lower than 650°F.
Hardness	0 through 1/2" diameters: Rockwell C39 minimum; 5/8" diameter & larger: Rockwell C37 minimum
Tensile Strength	0 through 1/2" diameters: 180,000 psi. Minimum; 5/8" diameter & larger: 170,000 psi. minimum
Yield Strength	0 through 1/2" diameters: 162,000 psi. Minimum; 5/8" diameter & larger: 153,000 psi. minimum
Elongation	10% minimum (applies to machined specimens of length at least 4D where D equals the nominal diameter of the screw)
Reduction of Area	33% minimum (applies to machined specimens)
Plating	See Appendix-A for information on the plating of alloy steel socket cap screws.