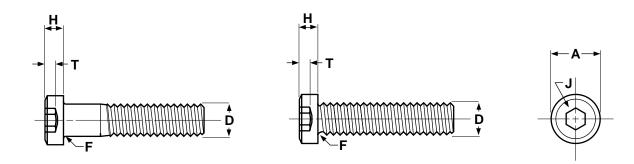
Sockets

Low Head Cap Screws



LOW HEAD SOCKET CAP SCREWS - ALLOY STEEL BIU											Blue Devil®		
Nominal Size	D	А		н		J	т	F		Tensile Strength		Tightening	
	Basic Screw Diameter	Head Diameter		Head Height		Hex Socket	Key Engagement	Fil	Fillet		ds Min.	Torque Inch Pounds	
		Max	Min	Max	Min	Size	Min	Max	Min	UNRC	UNRF		
8	0.1640	.270	.265	.082	.079	.0781	.060	.012	.007	2,310	2,440	19.4	
10	0.1900	.312	.307	.095	.092	.0938	.072	.014	.009	2,890	3,300	33.5	
1/4	0.2500	.375	.369	.125	.121	.1250	.094	.014	.009	5,250	6,000	77.9	
5/16	0.3125	.437	.431	.156	.152	.1562	.120	.017	.012	8,650	9,550	156.0	
3/8	0.3750	.562	.556	.187	.182	.1875	.145	.020	.015	12,800	14,450	273.0	
1/2	0.5000	.750	.743	.250	.244	.2500	.184	.026	.020	23,400	26,350	615.0	
			Nor	Nominal Screw Size			Nominal Screw Length						
Tolerance on Length			Nominal Screw Size			Up to 1 in., Incl.			Over 1 in. to 2-1/2 in., Incl.				
			0 thru 3/8			-0.03			-0.04				
			1/2			-0.03			-0.06				

Description	Similar to a standard alloy socket cap screw except the head height is 50% of the standard's and the socket size is smaller. The low-head style is supplied only in plain steel.						
Applications/ Advantages	Used in applications where the limited clearance would not accomodate the head height of a standard socket cap screw. Also used in counterbored holes of material too thin for a regular socket cap screw. However, because of their design, they cannot withstand the same preloads as a standard socket head.						
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 performance 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	Rockwell C38 minimum						
Tensile Strength	170,000 psi. minimum						
Yield Strength	150,000 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)						