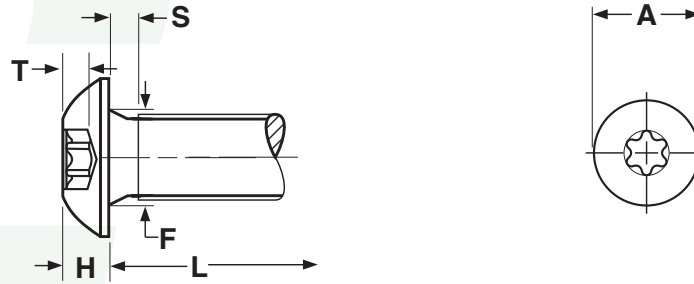


## METRIC FASTENERS

## SOCKETS, SIX-LOBE

ISO 7380-1 TX  
Six-Lobe

METRIC - SIX-LOBE ISO 7380 BUTTON HEAD CAP SCREWS											ISO 7380
Nominal Size	Thread Pitch	A		H		T	S		F	Six-Lobe Recess Size	
		Head Diameter		Head Height		Recess Penetration	Unthreaded Section Under the Head		Fillet Transition Diameter		
		Max	Min	Max	Min	Min	Max	Min	Max		
M3	0.5	5.7	5.4	1.65	1.40	1.01	1.0	0.5	3.6	T10	
M4	0.7	7.60	7.24	2.20	1.95	1.27	1.4	0.7	4.7	T20	
M5	0.8	9.50	9.14	2.75	2.50	1.52	1.6	0.8	5.7	T25	
M6	1	10.50	10.07	3.3	3.0	2.02	2	1	6.8	T30	
M8	1.25	14.00	13.57	4.4	4.1	2.85	2.50	1.25	9.2	T40	
Tolerance on Length		6mm: ±.24		8-10mm: ±.29		12-16mm: ± .35		20-30mm: ±.42		35-50mm: ±.5	

<b>Description</b>	Has a similar thread design as a metric socket cap screw but is fully threaded to the head. The dome shaped head is wider and has a lower profile than a socket cap screw and has a six-lobed recess.	
<b>Applications/Advantages</b>	Used when a wider bearing surface or a smoother, more finished appearance is desired, or in material too thin to accommodate a countersunk head. Button head screws do not afford the strength of socket head cap screws due to their head geometry and are designed for light fastening applications.	
<b>Material</b>	<p><b>Class 10.9 Steel</b></p> <p>May be made from a steel, which conforms to any of the following chemical composition requirements--  <b>Carbon Steel: Carbon:</b> 0.25-0.55%; <b>Phosphorous:</b> 0.035% maximum;  <b>Sulfur:</b> 0.035% maximum.</p> <p><b>Carbon Steel with additives such as Boron, Manganese or Chromium:</b>  <b>Carbon:</b> 0.20-0.55%; <b>Phosphorous:</b> 0.035% max; <b>Sulfur:</b> 0.035% max.</p> <p><b>Alloy steel which contains one or more of the following: Chromium, Nickel, Molybdenum or Vanadium: Carbon:</b> 0.20-0.55%; <b>Phosphorous:</b> 0.035% max; <b>Sulfur:</b> 0.035% max.</p>	<p><b>Stainless</b></p> <p>A2 Class 50 Stainless Steel</p>
<b>Heat Treatment</b>	Class 10.9 button head screws shall be heat treated by quenching in oil from above the transformation temperature and reheating to a tempering temperature of 425°C minimum.	-
<b>Hardness</b>	Rockwell C 32 - 39 (Vickers HV 320 - 380)	-
<b>Tensile Strength</b>	1,040 N/mm <sup>2</sup> minimum	600 N/mm <sup>2</sup>
<b>Proof Load</b>	940 N/mm <sup>2</sup> minimum	450 N/mm <sup>2</sup>
<b>Plating</b>	Screws are usually provided with a zinc finish.	Stainless screws are provided with a plain finish.