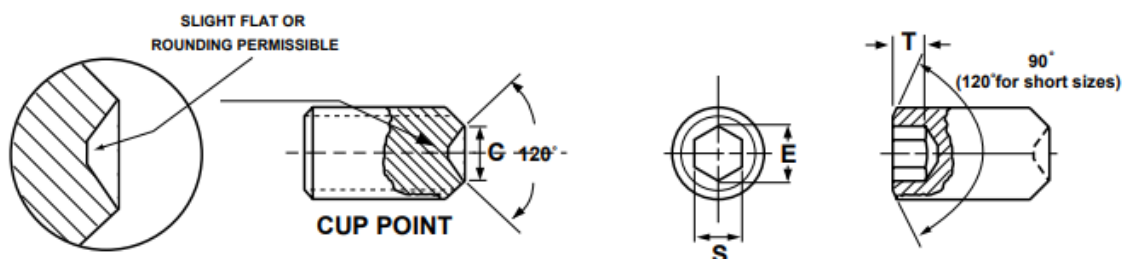


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METRIC - SOCKET SET SCREWS – CUP TYPE

The following Specification Sheet applies to all **Steel and Stainless Steel, Socket Set Screws – Cup Type** including those in our **SSM** series of screws.



METRIC - SOCKET SET SCREWS, CUP POINT										ISO 4029 & 898/5	
Nominal Size	Thread Pitch	C		E	S		Screws Below this Length are Short Sizes	T		Min Length of Screw for Torque Test	Test Torque
		Point Diameter		Socket Size Across Corners	Socket Size Across the Flats			Key Engagement (Min)			N. m
		Max	Min	Min	Max	Min		Short Sizes	Long Sizes		
M1.6	0.35	0.80	0.55	0.803	0.724	0.711	2.5	0.7	1.5	-	-
M2	0.4	1.00	0.75	1.003	0.902	0.889	3	0.8	1.7	-	-
M2.5	0.45	1.20	0.95	1.427	1.295	1.270	4	1.2	2	-	-
M3	0.5	1.40	1.15	1.73	1.545	1.520	5	1.2	2	4	0.9
M4	0.7	2.00	1.75	2.3	2.045	2.020	6	1.5	2.5	5	2.5
M5	0.8	2.50	2.25	2.87	2.560	2.520	6	2	3	6	5
M6	1	3.00	2.75	3.44	3.071	3.020	8	2	3.5	8	8.5
M8	1.25	5.0	4.7	4.58	4.084	4.020	10	3	5	10	20
M10	1.5	6.0	5.7	5.72	5.084	5.020	12	4	6	12	40
M12	1.75	8.00	7.64	6.86	6.095	6.020	16	4.8	8	16	65
M16	2	10.00	9.64	9.15	8.115	8.025	20	6.4	10	20	160
M20	2.5	14.00	13.57	11.43	10.115	10.025	25	8	12	25	310
M24	3	16.00	15.57	13.72	12.142	12.032	30	10	15	30	520
Tolerance on Length		2-3mm: ±0.2		4-6mm: ±0.24			8-10mm: ±0.29		12-16mm: ±0.35		
		20-30mm: ±0.42			35-50mm: ±0.5			55-60mm: ±0.6			

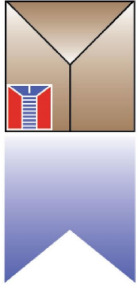
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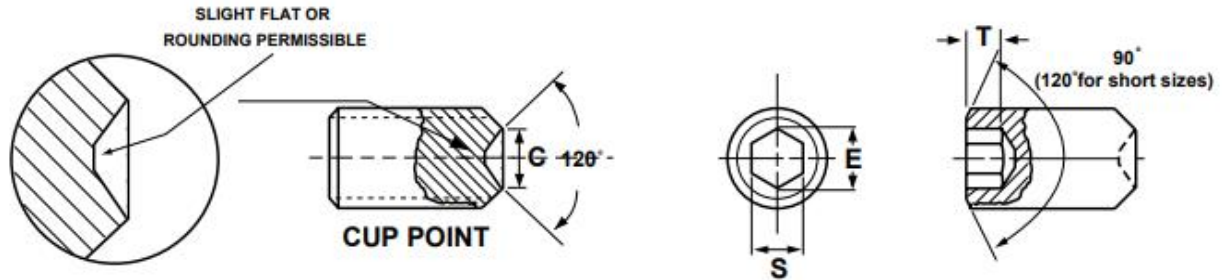
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Description	A headless screw threaded the entire length with a metric thread pitch. It has a hexagonal drive at one end and a cup-shaped indentation at the other end.
Applications/Advantages	The cup point is the most popular type of set screw, designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cutting in of cup edge on the shaft is acceptable.
Material	Metric socket set screws shall be made from an alloy steel which conforms to the following chemical composition requirements-- <i>Carbon:</i> 0.19-0.50%; <i>Phosphorous:</i> 0.05% maximum; <i>Sulfur:</i> 0.05% maximum; <i>Lead:</i> 0.35% maximum. Set screws shall also contain one or more of these following elements: chromium, nickel, molybdenum, vanadium or boron.
Heat Treatment	Metric socket set screws shall be heat treated by quenching in oil from above the transformation temperature and then tempered by reheating to meet the hardness requirements listed below.
Hardness	Rockwell HRC 45 - 53 (Vickers HV 450 - 560)
Torsional Strength	Metric socket set screws of a sufficient length to be tested (as listed in the above table) shall withstand application of the test torque specified in said table without evidence of the socket reaming or the screw bursting.
Plating	Metric socket set screws are usually supplied with a thermal black finish.

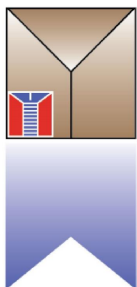
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METRIC THREAD DIMENSIONS

EXTERNAL THREADS FOR SOCKETS - CLASS 5g/6g						ISO 965
Thread	Major Diameter		Pitch Diameter		Minor Diameter	
	Max	Min	Max	Min	Max	Min
M1.6	1.581	1.496	1.354	1.304	1.151	1.088
M2	1.981	1.886	1.721	1.668	1.490	1.421
M2.5	2.480	2.380	2.188	2.132	1.928	1.855
M3	2.980	2.874	2.655	2.595	2.367	2.288
M4	3.978	3.838	3.523	3.452	3.119	3.021
M5	4.976	4.826	4.456	4.381	3.995	3.889
M6	5.974	5.794	5.324	5.234	4.747	4.618
M8	7.972	7.760	7.160	7.065	6.438	6.295
M10	9.968	9.732	8.994	8.888	8.128	7.964
M12	11.966	11.701	10.829	10.711	9.819	9.634
M16	15.962	15.682	14.663	14.538	13.508	13.306
M20	19.580	19.623	18.334	18.202	16.891	16.663
M24	23.952	23.577	22.003	21.843	20.271	19.995
M30	29.974	29.522	27.674	27.504	26.653	25.348
M36	35.940	35.465	33.342	33.162	31.033	30.709
M42	41.937	41.437	39.014	38.824	36.416	36.053
M48	47.929	47.399	44.681	44.481	41.795	41.402
M56	55.925	55.365	52.353	52.141	49.177	48.753
M64	63.920	63.320	60.023	59.799	56.559	56.104

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