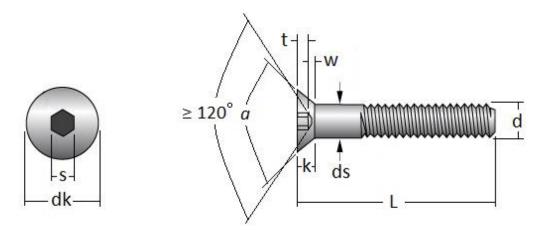


## Metric, Flat Head Socket Cap Screw, ISO 10642, Class 12.9, Black Oxide, Manufactured in the USA

This product standard contains the required dimensional, mechanical, performance, and chemical characteristics of the products shown in this purchase order (as applicable to the product). Unless specified below, current revisions of national or international standards shall be applicable as of the date of Fastenal's purchase order and must be adhered to in their entirety. If the order received does not meet these requirements, corrective action may be issued which could jeopardize your status as an approved supplier to Fastenal.



hread	_		dk		k	S		t	W	
Thread	Body		Head Diameter		Head	Hexagon Socket Size		Key	Socket	
Pitch	Diam	neter	Theoretical	Actual	Height	пехау	UT SUCK	let Size	Engagemen	Wall
	Max.	Min.	Max.	Min.	Max.	Nom.	Max.	Min.	Min.	Min.
0.5	3.00	2.86	6.72	5.54	1.86	2.0	2.045	2.02	1.1	0.25
0.7	4.00	3.82	8.96	7.53	2.48	2.5	2.560	2.52	1.5	0.45
0.8	5.00	4.82	11.20	9.43	3.10	3.0	3.071	3.02	1.9	0.66
1.0	6.00	5.82	13.44	11.34	3.72	4.0	4.084	4.020	2.2	0.70
1.25	8.00	7.78	17.92	15.24	4.96	5.0	5.084	5.02	3.0	1.16
1.50	10.00	9.78	22.40	19.22	6.20	6.0	6.095	6.020	3.6	1.62
1.75	12.00	11.73	26.88	23.12	7.44	8.0	8.115	8.025	4.3	1.80
2.0	16.00	15.73	33.60	29.01	8.80	10.0	10.115	10.025	4.8	2.20
0 0 1 1.	0.5 0.7 0.8 .0 .25 .50 .75	Max.   0.5 3.00   0.7 4.00   0.8 5.00   .0 6.00   .25 8.00   .50 10.00   .75 12.00	Max. Min.   0.5 3.00 2.86   0.7 4.00 3.82   0.8 5.00 4.82   .0 6.00 5.82   .25 8.00 7.78   .50 10.00 9.78   .75 12.00 11.73	Max. Min. Max.   0.5 3.00 2.86 6.72   0.7 4.00 3.82 8.96   0.8 5.00 4.82 11.20   .0 6.00 5.82 13.44   25 8.00 7.78 17.92   .50 10.00 9.78 22.40   .75 12.00 11.73 26.88	Max. Min. Max. Min.   0.5 3.00 2.86 6.72 5.54   0.7 4.00 3.82 8.96 7.53   0.8 5.00 4.82 11.20 9.43   0.0 6.00 5.82 13.44 11.34   225 8.00 7.78 17.92 15.24   50 10.00 9.78 22.40 19.22   75 12.00 11.73 26.88 23.12   0.0 16.00 15.73 33.60 29.01	Max. Min. Max. Min. Max.   0.5 3.00 2.86 6.72 5.54 1.86   0.7 4.00 3.82 8.96 7.53 2.48   0.8 5.00 4.82 11.20 9.43 3.10   .0 6.00 5.82 13.44 11.34 3.72   .25 8.00 7.78 17.92 15.24 4.96   .50 10.00 9.78 22.40 19.22 6.20   .75 12.00 11.73 26.88 23.12 7.44	Max. Min. Max. Min. Max. Nom.   0.5 3.00 2.86 6.72 5.54 1.86 2.0   0.7 4.00 3.82 8.96 7.53 2.48 2.5   0.8 5.00 4.82 11.20 9.43 3.10 3.0   .0 6.00 5.82 13.44 11.34 3.72 4.0   .25 8.00 7.78 17.92 15.24 4.96 5.0   .50 10.00 9.78 22.40 19.22 6.20 6.0   .75 12.00 11.73 26.88 23.12 7.44 8.0   .0 16.00 15.73 33.60 29.01 8.80 10.0	Max. Min. Max. Min. Max. Nom. Max.   0.5 3.00 2.86 6.72 5.54 1.86 2.0 2.045   0.7 4.00 3.82 8.96 7.53 2.48 2.5 2.560   0.8 5.00 4.82 11.20 9.43 3.10 3.0 3.071   .0 6.00 5.82 13.44 11.34 3.72 4.0 4.084   .25 8.00 7.78 17.92 15.24 4.96 5.0 5.084   .50 10.00 9.78 22.40 19.22 6.20 6.0 6.095   .75 12.00 11.73 26.88 23.12 7.44 8.0 8.115   .0 16.00 15.73 33.60 29.01 8.80 10.0 10.115	Max. Min. Max. Min. Max. Nom. Max. Min.   0.5 3.00 2.86 6.72 5.54 1.86 2.0 2.045 2.02   0.7 4.00 3.82 8.96 7.53 2.48 2.5 2.560 2.52   0.8 5.00 4.82 11.20 9.43 3.10 3.0 3.071 3.02   0 6.00 5.82 13.44 11.34 3.72 4.0 4.084 4.020   225 8.00 7.78 17.92 15.24 4.96 5.0 5.084 5.02   50 10.00 9.78 22.40 19.22 6.20 6.0 6.095 6.020   75 12.00 11.73 26.88 23.12 7.44 8.0 8.115 8.025   0.0 16.00 15.73 33.60 29.01 8.80 10.0 10.115 10.025	Max. Min. Max. Min. Max. Nom. Max. Min. Min. Min.   0.5 3.00 2.86 6.72 5.54 1.86 2.0 2.045 2.02 1.1   0.7 4.00 3.82 8.96 7.53 2.48 2.5 2.560 2.52 1.5   0.8 5.00 4.82 11.20 9.43 3.10 3.0 3.071 3.02 1.9   .0 6.00 5.82 13.44 11.34 3.72 4.0 4.084 4.020 2.2   .25 8.00 7.78 17.92 15.24 4.96 5.0 5.084 5.02 3.0   .50 10.00 9.78 22.40 19.22 6.20 6.0 6.095 6.020 3.6   .75 12.00 11.73 26.88 23.12 7.44 8.0 8.115 8.025 4.3   .0 16.00 15.73 33.60 29.01 <td< td=""></td<>

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## RECORD OF REVISION CHANGES TO THIS DOCUMENT ARE LOCATED ON THE LAST PAGE

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Date: June 14, 2019						



## **Specification Requirements:**

Dimensions: ISO 10642 (1997) • Threads: 5g6g per ISO 724; ISO 965-1 • Material & • Mechanical Properties: ISO 898-1; Grade 12.9 per ISO 10642 Black Oxide (Thermal or Chemical) Finish: • The MTR must have documented lot traceability, dimensional Material Test Reports: • results, full chemical test results and full mechanical test results to the specification(s) above. In addition, the MTR shall be in full compliance with Fastenal's MTR Requirements. Quality Assurance **Provisions:** Category 3 of ASME B18.18

## Revision Level Changes to this Document

Document Name	Revision Level	Revision Date	Rationale for Revision		
HK.M.FHSCS.10642.12.9.BO	00	1/7/2019	Revised title.		
HK.M.FHSCS.10642.12.9.BO	01	6/14/2019	Removed marking requirement, added thread requirement reference.		

The rationale above may not include all of the changes within each revision. A complete review of the Fastenal Product Standard is required.