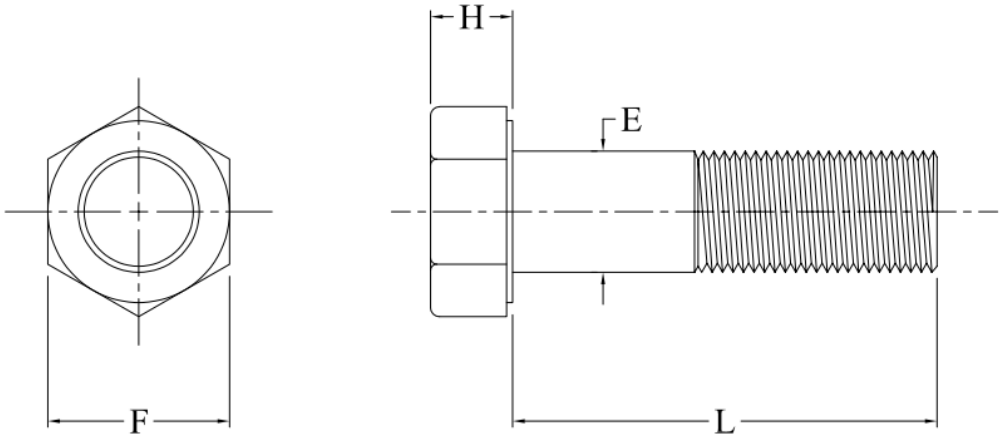
Hex Cap Screw, Grade 8, Plain

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.



Nominal Size	E		F		H	
	Full Size Body Diameter		Width Across Flats		Head Height	
	Max.	Min.	Max.	Min.	Max.	Min.
1/4	0.2500	0.2450	0.438	0.428	0.163	0.150
5/16	0.3125	0.3065	0.500	0.489	0.211	0.195
3/8	0.3750	0.3690	0.562	0.551	0.243	0.226
7/16	0.4375	0.4305	0.625	0.612	0.291	0.272
1/2	0.5000	0.4930	0.750	0.736	0.323	0.302
9/16	0.5625	0.5545	0.812	0.798	0.371	0.348
5/8	0.6250	0.6170	0.938	0.922	0.403	0.378
3/4	0.7500	0.7410	1.125	1.100	0.483	0.455
7/8	0.8750	0.8660	1.312	1.285	0.563	0.531
1	1.0000	0.9900	1.500	1.469	0.627	0.591
1 1/8	1.1250	1.1140	1.688	1.631	0.718	0.658
1 1/4	1.2500	1.2390	1.875	1.812	0.813	0.749
1 3/8	1.3750	1.3630	2.062	1.994	0.878	0.810
1 1/2	1.5000	1.4880	2.250	2.175	0.974	0.902

Length and Thread Length per ASME B18.2.1

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

Specification Requirements:

- Dimensions: ASME B18.2.1
- Material: SAE J429; Grade 8
- Mechanical: SAE J429; Grade 8
- Threads: ASME B1.1, UNC, UNF & UNS, Class 2A
- Product Marking: Manufacturer's ID and 6 radial lines 60 degrees apart
- Finish: Light Protective Oil
- Material Test Reports: The MTR must have documented lot traceability, dimensional 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: Final inspection per Category 3 of ASME B18.18 shall be performed by an ISO/IEC 17025 accredited laboratory with all test methods within the lab scope. The sample size for Category 3 shall be used, unless the producer has in-process records, in which case, Category 2 sample size may be used. Final inspection shall consist of the following:

  a) Verifying in-process inspection records for conformity
  b) Conducting any additional dimensional inspections to meet required sample size
  c) Conducting all applicable mechanical and performance tests

  Resellers shall randomly select fasteners from a verifiable single lot and conduct the final inspection in a facility accredited to the requirements of ISO/IEC 17025 using the Category 3 sample size and attributes of ASME B18.18. The original producers inspection shall accompany the resellers final inspection certification.

Revision Level Changes to this Document

Document Name	Revision Level	Revision Date	Rationale for Revision
HCS.GR8.P	07	6/11/2021	Updated format and added UNS designation.
HCS.GR8.P	08	11/14/2022	Refined image.
HCS.GR8.P	09	8/25/2025	Updated CAT 3 requirement.

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