



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 70.6-2020

Hexagon socket head cap screws - Fine pitch thread

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Foreword

GB/T 70 is one of the national standards of the "socket head cap screws (hexagon part)" series. This series includes:

- GB/T 70.1 Hexagon Socket Head Cap Screws;
- GB/T 70.2 Hexagon Socket Button Head Screws;
- GB/T 70.3 Hexagon Socket Countersunk Head Screws;
- GB/T 70.4 Hexagon Socket Button Head Screws with Collar;
- GB/T 70.6 Hexagon Socket Head Cap Screws - Fine Pitch Thread;
- GB/T 5281 Hexagon Socket Head Shoulder Screws.

This Part is Part 6 of GB/T 70.

This Part was drafted in accordance with the rules in GB/T 1.1-2009.

This Part uses the re-drafting method to modify and adopt ISO 12474:2010 Hexagon Socket Head Cap Screws with Metric Fine Pitch Thread.

In comparison with ISO 12474:2010, the technical differences and the reasons for these differences are as follows:

- In Normative References, Chinese Standards are used to replace international standards (see Chapter 2); GB/T 70.5 (see Table 1), GB/T 90.2 (see Table 2) and GB/T 1237 (see 5.1) are added, so as to comply with Chinese basic standards on fasteners;

- Non-ferrous metals CU2 and CU3 (see Table 2) are added, so as to expand the scope of application of the products;
 - The technical requirements for packaging are added (see Table 2), so as to comply with Chinese basic standards on fasteners;
 - The corresponding specification of stainless steel product performance level is modified into " $d \leq 24 \text{ mm}$ " and " $24 \text{ mm} < d \leq 36 \text{ mm}$ " (see Table 2);
 - Designation example is modified into simplified designation example (see 5.2), so as to comply with the stipulations of GB/T 1237;
 - "if other technical requirements are needed, you may select from the existing international standards, such as: ISO 261, ISO 888, ISO 898-1, ISO 965-2, ISO 3506-1, ISO 4759-1 and ISO 8839" is deleted from Chapter 6 Other Technical
- Hexagon Socket Head Cap Screws - Fine Pitch Thread

1 Scope

This Part of GB/T 70 specifies the types and dimensions, technical conditions and designation of hexagon socket head cap screws with fine pitch thread.

This Part is applicable to hexagon socket head cap screws with the nominal diameter of thread $d = 8 \text{ mm} \sim 36 \text{ mm}$, fine pitch thread, performance level of 8.8, 10.9, 12.9/12.9, A2-50, A2-70, A3-50, A3-70, A4-50, A4-70, A5-50, A5-70, CU2 and CU3, and Grade-A of product grade.

The reference mass of screws is shown in Appendix A.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 2 Fasteners - Ends of Parts with External Thread (GB/T 2-2016, ISO 4753:2011, MOD)

GB/T 70.5 Gauging of Hexagon Sockets (GB/T 70.5-2008, ISO 23429:2004, IDT)

GB/T 90.1 Fasteners - Acceptance Inspection (GB/T 90.1-2002, idt ISO 3269:2000)

GB/T 90.2 Fasteners - Marking and Packaging

GB/T 193 General Purpose Metric Screw Threads - General Plan (GB/T 193-2003, ISO 261:1998, MOD)

GB/T 1237 Designation System for Fasteners (GB/T 1237-2000, eqv ISO 8991:1986)

GB/T 2516 General Purpose Metric Screw Threads - Limit Deviations (GB/T 2516-2003, ISO 965-3:1998, MOD)

GB/T 3098.1 Mechanical Properties of Fasteners - Bolts, Screws and Studs (GB/T 3098.1-2010, ISO 898-1:2009, MOD)

GB/T 3098.6 Mechanical Properties of Fasteners - Stainless Steel Bolts, Screws and Studs (GB/T 3098.6-2014, ISO 3506-1:2009, MOD)

GB/T 3098.10 Mechanical Properties of Fasteners - Bolts, Screws, Studs and Nuts Made of Non-ferrous Metals (GB/T 3098.10-1993, eqv ISO 8839:1986)

GB/T 3103.1 Tolerances for Fasteners - Bolts, Screws, Studs and Nuts (GB/T 3103.1-2002, idt ISO 4759-1:2000)

GB/T 5267.1 Fasteners - Electroplated Coatings (GB/T 5267.1-2002, ISO 4042: 1999, IDT)

GB/T 5267.2 Fasteners - Non-electrolytically Applied Zinc Flake Coatings (GB/T 5267.2-2017, ISO 10683:2014, MOD)

GB/T 5267.4 Passivation of Corrosion-resistant Stainless-steel Fasteners (GB/T 5267.4-2009, ISO 16048:2003, IDT)

GB/T 5276 Fasteners - Bolts, Screws, Studs and Nuts - Symbols and Descriptions of Dimensions (GB/T 5276-2015, ISO 225:2010, MOD)

GB/T 5779.1 Fasteners - Surface Discontinuities - Bolts, Screws and Studs for General Requirements (GB/T 5779.1-2000, idt ISO 6157-1:1988)

GB/T 5779.3 Fasteners - Surface Discontinuities - Bolts, Screws and Studs for Special Requirements (GB/T 5779.3-2000, idt ISO 6157-3:1988)

GB/T 9145 General Purpose Metric Screw Threads - Limits of Sizes for the Screw

Threads of Medium Quality and Preferable Plan (GB/T 9145-2003, ISO 965-2:1998, MOD)

GB/T 16938 Fasteners - General Requirements for Bolts, Screws, Studs and Nuts (GB/T 16938-2008, ISO 8992:2005, IDT)

3 Types and Dimensions

The types and dimensions of screws are shown in Figure 1 and Table 1.

The symbols and descriptions of dimensions shall comply with GB/T 5276.

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