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

GB/T 80-2007

Replacing GB/T 80-2000

Hexagon socket set screws with cup point

内六角凹端紧定螺钉

(English Translation)

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Foreword

This standard is one (content regulation) series of standards national standards, "Allen screw" products. The series includes.

- a) GB/T hexagon socket head cap screws inside 70.1-2000;
- b) GB/T 70.2-2000 within hexagonal flat head screws;
- c) GB/T hex head screws within 70.3-2000;
- d) GB/T 77-2007 Hexagon flat inner set screws;
- e) GB/T 78-2007 hexagonal pyramid within the set screws;
- f) GB/T 79-2007 hexagon socket set screws;
- g) GB/T 80-2007 within Hexagon socket set screws;
- h) GB/T Hexagon socket head shoulder screws within 5281-1985.

This revised standard adopts ISO 4029:2003 "Hexagon socket set screws" (in English), the main changes are as follows.

- Normative reference document, instead of using our standards corresponding to international standards;
- ISO 4029 non-ferrous metal screws are not given a specific level of performance, this standard shall be specified (see Table 2);
- ISO 4029 does not provide packaging technology requirements, the standard to be prescribed (see Table 2);
- ISO 4029 surface treatment not specified, this standard shall be specified (see Table 2,5.2);
- ISO 4029 does not provide for a simplified mark, the present standard of GB/T 1237 to simplify the principles given simplified markup example (see 5.2).

This standard replaces GB/T 80-2000 "Hexagon socket set screws." this standard compared with GB/T 80-2000 main changes are as follows.

--- Canceled Appendix A, reference to ISO 23429:2004 "Allen gauge" (see Table 1);

--- Increase the mechanical properties of the steel grade (see Table 2);

--- Increase in non-electrolytic zinc flake coating (see Table 2).

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee fasteners (SAC/TC85) centralized.

1 Scope

This standard specifies the thread size of M1.6 ~ M24, property class 45H, A1-12H, A2-21H, A3-21H, A4-21H, A5-21H, CU2, CU3 and AL4, product grade A-level hexagonal socket set screws.

For other technical requirements, should the current standards (such as GB/T 193, GB/T 3098.3, GB/T 9145, GB/T 3098.16 and GB/T 3103.1 selection).

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

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 series ordinary thread diameter and pitch (GB/T 193-2003, ISO 261:1998, ISO generalpurpose metricscrewthreads-Generalplan, MOD) GB/T 1237 fasteners labeling method (GB/T 1237-2000, eqv ISO 8991. 1986) GB/T 2516 common thread limit deviation (GB/T 2516-2003, ISO 965-3:1998, ISO generalpurpose metricscrewthreads-Tolerances-Part 3. Deviationsforconstructionalscrewthreads, MOD) GB/T 3098.3 Mechanical properties of fasteners set screws (GB/T 3098.3-2000, idt ISO 898-5:1998) GB/T 3098.10 Mechanical properties of fasteners non-ferrous metal manufacturing bolts, screws, studs and nuts (GB/T 3098.10-1993, eqv ISO 8839. 1986) GB/T 3098.16 mechanical properties of stainless steel fasteners set screws (GB/T 3098.16-2000, idt ISO 3506-3:1997) 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 plating layer (GB/T 5267.1-2002, ISO 4042:1999, IDT) GB/T 5267.2 fasteners non-electrolytic zinc flake coating (GB/T 5267.2-2002, ISO 10683:2000, IDT) GB/T 5276 Fasteners Bolts, screws, studs and nuts - Symbols and designations size (GB/T 5276-1985, eqv ISO 225. 1983) 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 9145 common thread moderate accuracy, preferably series limit size (GB/T 9145-2003, ISO 965-2:1998, ISO generalpurposemetricscrewthreads-Tolerances-Part 2. Limitsofsizesforgeneralpurpose externalandinternalscrewthreads-Mediumquality, MOD) ISO 8992. 1986 Fasteners Bolts, screws, studs and nuts conditions ISO 23429:2004 within the hexagon gauge