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

GB/T 68-2016

**Slotted countersunk flat head screws
(English Translation)**

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Foreword

This Standard is one of the serial national standards of "Slotted Screws and Cross Recess Screws", such series include.

- GB/T 65 Slotted Cheese Head Screws;
- GB/T 67 Slotted Pan Head Screws;
- GB/T 68 Slotted Countersunk Flat Head Screws;
- GB/T 69 Slotted Raised Countersunk Head Screws;
- GB/T 818 Pan Head Screws with Cross Recess;
- GB/T 819.1 Countersunk Flat Head Screws with Cross Recess - Part 1. Property Class 4.8;
- GB/T 819.2 Countersunk Flat Head Screws with Cross Recess - Part 2. Property Class 8.8, Stainless Steel Screws and Non-Ferrous Metal Screws;
- GB/T 820 Raised Countersunk Head Screws with Cross Recess;
- GB/T 822 Cross Recessed Cheese Head Screws;
- GB/T 823 Cross Recessed Small Pan Head Screws;
- GB/T 13806.1 Fasteners for Fine Mechanics - Cross Recessed Screws.

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 68-2000 Slotted Countersunk Flat Head Screws; compared with GB/T 68-2000, this Standard has the major technical changes as follows.

- Delete "if other technical requirements are needed,... selection in GB/T 3098.10 and GB/T 3103.1" (Chapter 1 in 2000 Edition);
- Unify the reference thread standards into GB/T 193, GB/T 9145 (see Chapter 2);
- Add "d< 3mm, as per agreement" to the property class of steel and nonferrous screws (see Table 2);
- Add the steel screws non-electrolytically applied zinc flake coating technical requirements as per GB/T 5267.2 (see Table 2);
- Add the stainless-steel screws passivation treatment technical requirements as per GB/T 5267.4 (see Table 2);
- Add the non-ferrous metal screws electroplating technical requirements as per GB/T 5267.1 (see Table 2).

This Standard adopts re-drafting method to modify and use ISO 2009.2011 Slotted Countersunk Flat Head Screws - Product Grade A (English Edition).

The technical differences and causes between this Standard and ISO 2009.2011 are as follows.

- Delete ISO 2009 provisions. "if other technical requirements are needed,... selection in ISO 4759-1" (Chapter 1), which doesn't belong to the contents of this Standard;
- In the normative references, use national standards to replace the international standards (Chapter 2); add the reference of GB/T 5279 (Table 1), GB/T 90.2 (Table 2), and GB/T 1237 (5.1); so that conform to China's fastener basic standard;
- Add steel and non-ferrous metal screws property class of "d< 3mm, as per agreement" (table 2), expand the applicable scope of the standard;
- Add the non-ferrous metal screws property class (Table 2); expand the applicable scope of the standard;
- Add the packaging technical requirements (Table 2); so that conform to China's fastener basic standard;

--- Modify the marking examples into simplified marking examples (5.2); so that conform to the provisions of GB/T 1237.

This Standard also has the following editorial changes.

--- Modify the standard name;

--- Delete the bibliography of ISO 2009.

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee for Standardization of Fastener (SAC/TC 85).

Drafting organizations of this Standard. China Productivity Center for Machinery.

Participating drafting organizations of this Standard. Machinery Industry General Parts Product Quality Supervision and Testing Center, and Ningbo Zhongji Machinery Parts Testing Co., Ltd.

This Standard shall be interpreted by the Secretariat of National Technical Committee
Slotted Countersunk Flat Head Screws

1 Scope

This Standard specifies the type and dimension, technical conditions and marks of slotted countersunk flat head screws.

This Standard is applicable to the slotted countersunk flat head screws with Thread Specification M1.6~M10, Property Class 4.8, 5.8, A2-50, A2-70, CU2, CU3, and AL4, and Product Grade A.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this document.

GB/T 90.1 Fasteners - Acceptance Inspection (GB/T 90.1-2002, idt ISO 3269.2000, IDT)

GB/T 90.2 Fasteners - Marking and Packaging

GB/T 193 General Purpose Screw Threads - Diameters and Pitches (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 3098.1 Mechanical Properties of Fasteners - Bolts, Screws and Studs (GB/T 3098.1-2010, ISO 898-1.2009, IDT)

GB/T 3098.6 Mechanical Properties of Fasteners - Stainless Steel Bolts, Screws and Studs (GB/T 3098.6-2000, ISO 3506-1.2009, MOD)

GB/T 3098.10 Mechanical Properties of Fasteners -Bolts, Screws and Studs Made of Non-Ferrous Metals (GB/T 3908.10-1993, eqv ISO 8839.1986)

GB/T 3103.1 Tolerances for Fasteners - Bolts, Screws 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

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