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

GB/T 16824.2-2016

**Hexagon flange head tapping screws
(English Translation)**

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Foreword

This Part of GB/T 16824 is one of the serial national standards of "Taping Screws", which include.

- GB/T 845 Cross Recessed Pan Head Tapping Screws;
- GB/T 846 Cross Recessed Countersunk Head Tapping Screws;
- GB/T 847 Cross Recessed Raised Countersunk Head Tapping Screws;
- GB/T 2670.1 Hexalobular Socket Pan Head Tapping Screws;
- GB/T 2670.2 Hexalobular Socket Countersunk Head Tapping Screws;
- GB/T 2670.3 Hexalobular Socket Raised Countersunk (Oval) Head Tapping Screws;
- GB/T 5282 Slotted Pan Head Tapping Screws;
- GB/T 5283 Slotted Countersunk Head Tapping Screws;
- GB/T 5284 Slotted Raised Countersunk Head Tapping Screws;
- GB/T 5285 Hexagon Head Tapping Screws;
- GB/T 9456 Cross Recessed Hexagon Head Tapping Screws with Indentation;
- GB/T 13806.2 For Fine Mechanics Cross Recessed Tapping Screws - Scrape Point;
- GB/T 16824.1 Hexagon Washer Head Tapping Screws;
- GB/T 16824.2 Hexagon Flange Head Tapping Screws.

This Part belongs to Part 2 of GB/T 16824.

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

This Part replaced GB/T 16824.2-1997 Hexagon Flange Head Tapping Screws; compared with GB/T 16824.2-1997, this Part has the major technical changes as follows.

--- Increase the Type-R end (Chapter 3);

--- Dimension a is measured from the small diameter of the first circle of perfect thread (Figure 1);

--- Increase the provisions of stainless steel materials, mechanical performance as per GB/T 3098.21, surface simplified treatment and passivation treatment as per GB/T 5267.4 (Table 2);

--- Increase the provisions of untreated surface of steel nuts, and non-electrolytically applied zinc flake coating technical requirements as per GB/T 5267.2 (Table 2);

--- Only allow to omit the markings of galvanizing technical requirements given in marking example (Chapter 5);

--- Add Appendix A.

This Part adopts re-drafting method to modify and use ISO 10509:2012 Hexagon Flange Head Tapping Screws (English Edition).

The technical differences and causes between this Part and ISO 10509:2012 are as follows.

--- In the normative references, use national standards to replace the international standards (Chapter 2); add the reference of GB/T 90.2 (Table 2), and GB/T 1237 (5.1); so that conform to China's fastener basic standard;

--- Increase 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 Part was proposed by China Machinery Industry Federation.

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

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

Participating drafting organizations of this Part. Wenzhou Yili Machinery Development Co., Ltd.

This Part shall be interpreted by the Secretariat of National Technical Committee for Standardization of Fastener.

The historical edition replaced by this Part is as follows.

--- GB/T 16824.2-1997.

Hexagon Flange Head Tapping Screws

1 Scope

This Part of GB/T 16824 specifies the type and dimension, technical conditions and markings of hexagon flange head tapping screws.

This Part is applicable to hexagon flange head tapping screws with thread specification ST 2.2~ ST 9.5.

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, ISO 3269:2000, IDT)

GB/T 90.2 Fasteners - Marking and Packaging

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

GB/T 3098.5 Mechanical Properties of Fasteners - Tapping Screws (GB/T 3098.5-2016, ISO 2702:2011, MOD)

GB/T 3098.21 Mechanical Properties of Fasteners - Stainless Steel Tapping

Screws (GB/T 3098.21-2014, ISO 3506-4.2009, MOD)

GB/T 3103.1 Tolerances for Fasteners - Bolts, Screws and Nuts (GB/T 3103.1-2002, 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 5267.2-2002, ISO 10683.2000, IDT)

GB/T 5267.4 Passivation of Corrosion - Resistant Stainless - Steel Fasteners (GB/T 5267.4-2009, ISO 16048.2003, IDT)

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