



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

GB/T 18230.3-2000

**Hexagon nuts for high-strength structural bolting with large
width across flats - Product grade B - Property classes 8 and 10
(English Translation)**

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Foreword

This Standard equivalently adopts international standard ISO 4775.1984 Hexagon Nuts for High-Strength Structural Bolting with Large Width Across Flats - Product Grade B - Property Classes 8

and 10.

This Standard specifies the packaging technical requirements which is not specified in ISO 4775.

ISO 4775 does not quote ISO 225 Fasteners - Bolts, Screws, Studs and Nuts - Symbols and

Designations of Dimensions and ISO 8992 Fasteners - General Requirements for Bolts, Screws, Studs

and Nuts. This Standard amends the provisions (see Chapter 3 note and Table 2) according to the latest

relevant ISO fasteners standard (such as ISO 8673.1999 Hexagon Nuts, Style 1, with Metric Fine Pitch

Thread - Product Grades A and B.

This Standard adds provisions of filtration of zinc powder which is not specified in ISO

4775.

This Standard specifies 6AX thread extreme dimension (see Appendix A) according to ISO 965-5:1998

General Purpose Metric Screw Threads - Tolerances - Part 5. Limits of Sizes of Internal Screw Threads,

to Mate with Hot-Dip Galvanized External Screw, Threads with Maximum Size of Tolerance Position H

before being Galvanized.

Annex A and B are normative.

This Standard was proposed by State Administration of Machinery Industry.

This Standard shall be under the jurisdiction of National Technical Committee for Auto Standardization.

Responsible drafting organization. Academy of Machinery Science and Technology.

Participating drafting organizations. Shanghai Jinma High Strength Fastener Co., Ltd, Shanghai

High-strength Bolts Plant, Shanghai Shengguang High-strength Bolts Plant, Zhejiang Shaoxing High

Strength Fastener Plant, and Hebei Ren County High-strength Bolts Co. Ltd.

ISO Foreword

ISO (International Standardization Organization) is a syndicate consisting of state standard group

(members of ISO) across the world. The formulation of the international standard is made by all

technical committees of ISO. Each member who is interested in projects of certain technical committee

can participate in the committee. Governmental and non-governmental international organizations

related with ISO can also take part in the job. ISO is closely related with IEC in terms of electro-technical

normalization.

International standard draft adopted by technical committee shall be distributed to all member groups for

voting. The official publication of international standards needs at least 75% votes by the member

groups.

International standard ISO 4775 was formulated by ISO/TC 2 Fasteners Technical Committee.

Hexagon nuts for high-strength structural bolting

with large width across flats

- Product grade B

- Property classes 8 and 10

1 Scope

This Standard specifies the hexagon nuts for structural bolting - thread specification is M12-M36, the

performance grades are 8 and 10, the product grade is B, and used with grades 8.8 and 10.9 bolts.

Other technical requirements shall be selected from current standards (such as GB/T196, GB/T197 and

GB/T3098.2).

The nuts specified in this Standard shall be matched with appropriate bolts (such as GB/T18230.1 or

GB/T18230.2), so as to effectively prevent the connectors from thread tripping due to over-twisting.

Hot-dipped galvanized nuts can provide 6H thread tolerance zone after galvanization according to the

agreement by the supplier and purchaser. 6H hot-dipped galvanized nuts must be matched with 8.8s U

or 10.9s U hot-dipped galvanized bolts, and thread tripping may occur due to over-twisting.

Note: please make sure correctly using bolt for satisfactory results. For the purpose of proper use, it is recommended to

formulate supplementary specifications for bolt connection.

2 Normative references

The provisions contained in the following standards become part of this Standard, through the reference

of this Standard. At the time of publication of this Standard, the shown versions of these standards are

valid. All standards are subject to revision, and all parties who use this Standard are encouraged to

investigate the possibility of applying the newest version of these standards.

GB/T 90-1985 Acceptance check, marking and packaging of fasteners (eqv ISO 3269.1984)

GB/T 196-1981 Basic Size of Common thread (Diameter of 1~600 mm).

GB/T 197-1981 Tolerance and coordination of normal thread (Diameter of 1~355 mm).

GB/T 1237-2000 Marking method of fasteners (eqv ISO 8991.1986)

GB/T 3098.2-2000 Mechanical performance of fasteners nuts and coarse threads (idt ISO 898-2.1992)

GB/T 3103.1-1982 Tolerances for Fasteners Bolt, Screw and Nut (eqv ISO 4759-1.1978)

GB/T 5267-1985 Electroplated Coating of Threaded Fastener

GB/T 5276-1985 Dimension number and mark of fasteners, bolts, nail, double-screw bolt and nut (eqv

ISO 225.1983)

GB/T 13912-1992 Hot Dip Electroplated Coating Technical Requirements of Steel Products with Metal

coating (neq ISO 1459.1973)

GB/T 16938-1997 General Technical Requirements for Fasteners, Bolts, Screws, Studs and Nuts (idt

ISO 8992.1986)

GB/T 18230.1-2000 The length grades of the thread of Hexagon cap bolts for structural bolting are

3106 and 10.9 in Level C of GB/T3106 (eqv ISO 7411.1984)

GB/T 18230-2000 Hexagon cap bolts for structural bolting length of thread are grade 8 and 10.9 in