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

GB/T 342-2017

**Dimension, shape, mass and tolerance of cold-drawn round,
square and hexagonal steel wires**
(English Translation)

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Foreword

This Standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 342-1997 "Dimension shape mass and tolerance for cold-drawn round square and hexagonal steel wires". As compared with GB/T 342-1997, the main changes of this Standard are as follows.

- MODIFY the scope;
- ADD normative references;
- ADD codes;
- ADD the classification of steel wires;
- DELETE marking example;
- MODIFY the nominal dimension, sectional area, and theoretical weight of steel wires;
- MODIFY the dimension tolerance of steel wires;
- MODIFY the application range of dimension tolerance level of steel wires;
- MODIFY the shape requirements of steel wires;
- MODIFY the length and tolerance of straight strip steel wires.

This Standard uses the redraft law to refer to ISO 22034-2.2016 "Steel wire and

wire products - Part 2.Tolerances on wire dimensions" for preparation. The degree of consistency with ISO 22034-2:2016 is not equivalent.

This Standard was proposed by China Iron and Steel Association.

This Standard shall be under the jurisdiction of China National Technical Committee for Steel Standardization (SAC/TC 183).

Drafting organizations of this Standard. Hangzhou Chuangyu Metal Technology Co., Ltd., China Metallurgical Information and Standardization Institute, Jiangsu Goodroller Machinery Co., Ltd., Jiangsu Fasten Group Co., Ltd.

Main drafters of this Standard. Hong Yazhou, Xu Honglin, Ren Cuiying, Wang Lingjun, Mu Kaihong, Zhou Xiaohong, Zhu Weijun, Wang Huan.

The previous releases of versions of the standard replaced by this Standard are.

- GB/T 342-1964, GB 342-1982, GB/T 342-1997.

Dimension, shape, mass and tolerance of
cold-drawn round, square and hexagonal steel wires

1 Scope

This Standard specifies the dimension, shape, mass and tolerance of cold-drawn round, square and hexagonal steel wires.

This Standard is applicable to the cold-drawn round steel wire with a diameter of 0.05 mm~20 mm, the cold-drawn square steel wire with a side length of 0.50 mm~10 mm, and the cold-drawn hexagonal steel wire with an opposite side distance of 1.60 mm~10 mm.

2 Normative references

The following documents are indispensable for the application of this document.

For the dated references, only the versions with the dates indicated are applicable to this document. For the undated references, the latest version (including all the amendments) are applicable to this document.

GB/T 321-2005 Preferred numbers - Series of preferred numbers

GB/T 1800.1-2009 Geometrical product specifications (GPS) - Limits and fits

- Part 1. Bases of tolerances deviations and fits

3.1 The section diagram and labeling symbol of round steel wires are shown in Figure 1.

4.1 Steel wire, according to the section shape, is divided into three types. Its codes are represented by the English capital initials of round, square, and hexagon, respectively.

4.2 Straight strip steel wire, according to the length tolerance, is divided into three classes. Class I, Class II, and Class III.

5.1 The nominal dimension, sectional area, and theoretical weight of steel wires shall conform to the provisions of Table 1.

6.1 The nominal dimension tolerance of steel wire shall comply with the provisions of Table 2. When the demand side has special requirements, it shall be specified in the contract.

6.2 The nominal dimension tolerance level of steel wire shall conform to the provisions of Table 3.

6.5 When there are special requirements for the corner arc radius of square and hexagonal steel wires, the agreement between the supply and the demand sides shall be reached.

7.1 Steel wire is usually delivered in disc. When steel wire is delivered in straight strip, it shall be specified in the contract.

7.2 Square and hexagonal steel wires delivered in straight strips shall not be significantly twisted.

8 Length and tolerance of straight strip steel wire

The length and tolerance of straight strip steel wire shall conform to the provisions of Table 6.

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