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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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Replacing GB/T 6723-2008

# Cold forming open section steel for general structure

通用冷弯开口型钢

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Standardization Administration Committee.

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#### **Foreword**

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

This Standard replaces GB/T 6723-2008, Cold forming sectional steel - Open sectional steel for general structure - Size, shape, weight and permissible tolerances. Compared with GB/T 6723-2008, the main changes in this Standard are as follows:

- modify the standard's name;
- add the order content;
- add the product specifications;
- add equal curling angle steel;
- add technical requirements.

This Standard was proposed by China Iron and Steel Industry Association.

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

The drafting organizations of this Standard: Metallurgical Industry Information Standards Institute, Wuhan Iron and Steel Jiangbei Group Co., Ltd., Shanxi Dingrong Cold-forming Steel Co., Ltd.

The drafters of this Standard: Wang Yujie, Zhu Shaowen, Sheng Zhenjian, Song Yuguang, Liu Baoshi.

The previous versions of the standards which are replaced by this Standard are:

- GB/T 6723-1986, GB/T 6723-2002, GB/T 6723-2008.

## Cold forming open section steel for general structure

### 1 Scope

This Standard specifies the order content, classification, code, section size and allowable deviation, length and allowable deviation, shape, technical requirements, weight and marking examples of cold forming open section steel for general structure.

This Standard is applicable to cold forming open section steel (hereinafter referred to as section steel) which is produced on continuous roll cold bending unit by cold-rolled or hot-rolled steel sheets.

#### 2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 6725, General requirements of cold forming steel sections

#### 3 Order content

The contract or order in accordance with this Standard shall include the following contents:

- a) Standard serial number;
- b) product name;
- c) designation;
- d) delivery weight;
- e) size and shape;
- f) special requirements.

#### 4 Classification and code

The section steels, according to their cross-section shapes, are divided into 9

types, and their codes are:

- a) cold forming equal angle steel, JD;
- b) cold forming unequal angle steel, JB;
- c) cold forming equal channel steel, CD;
- d) cold forming unequal channel steel, CB;
- e) cold forming inside curling channel steel, CN;
- f) cold forming outside curling channel steel, CW;
- g) cold forming Z-shaped steel, Z;
- h) cold forming curling Z-shaped steel, ZJ;
- i) curling equal angle steel, JJ.

#### 5 Cross-section size and allowable deviation

#### 5.1 Cross-section shape and labeling of the section steel

The cross-section shape and labeling of the section steel are shown in Figure 1 ~ Figure 9. If it is negotiated between the supplier and the buyer and indicated in the contract, the section steels, other than the cross-section shapes which are listed in Figures 1 ~ Figure 9, can be supplied.

# 5.2 Size, theoretical weight, cross-section area and main parameters of the section steel

Size, theoretical weight, cross-section area and main parameters of the section steel are shown in Figure 1 ~ Figure 9. If it is negotiated between the supplier and the buyer and indicated in the contract, the section steels, other than the size which are listed in Figures 1 ~ Figure 9, can be supplied; the parameters shall be negotiated between the supplier and the buyer.

- **5.4.3** When the nominal sizes of two free side lengths are equal, the actual size difference shall not exceed 75% of the allowance. When the nominal sizes of the two free side lengths are not equal, execute according to the allowable deviation of the larger side length.
- **5.4.4** The allowable deviation of the wall thickness of the section of the steel plate shall be in accordance with the corresponding standard of the steel plate and steel strip that is used. The wall thickness reduction in the bending angle region does not exceed 10% of the nominal wall thickness of the section steel.

#### 5.5 Allowable deviation of bending angle

The length allowable deviation of the bending angle shall comply with the requirements of Table 13.

Table 13 -- Allowable deviation of bending angle

| Shorter side length size mm | Allowable deviation (°) |
|-----------------------------|-------------------------|
| ≤10                         | ±3.0                    |
| >10 ~40                     | ±2.0                    |
| >40~ 80                     | ±1.5                    |
| >80                         | ±1.0                    |

#### 5.6 Measuring position

The size of the section steel shall be measured at not less than 100 mm from the end.

# 6 Length and allowable deviation

- **6.1** The general length of section steel is 4 000 mm  $\sim$  16 000 mm. If it is negotiated between the supplier and the buyer and indicated in the contract, section steels other than the above-mentioned specified length may also be supplied.
- **6.2** When the steel is delivered in fixed-length or multiple-length, it shall be indicated in the contract. When it is delivered in fixed-length or multiple-length, the length allowable deviation shall comply with the provisions of Table 14. If the fixed-length accuracy is not indicated in the contract, it shall be delivered according to the ordinary fixed-length.

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