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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 6728-2025

Replacing GB/T 6728-2017

Cold forming sectional steel for general structure

结构用冷弯型钢

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1 Scope

This document specifies the ordering details, classification, codes, technical requirements, inspection rules, packaging, marks, transportation, storage, and quality certificate for cold forming sectional steel for general structure (hereinafter referred to as sectional steel). It also describes the corresponding test methods.

This document applies to general-purpose cold forming open-sectional steel (hereinafter referred to as open-sectional steel), round, rectangular, and square cold forming closed-sectional steel (hereinafter referred to as closed-sectional steel) produced from cold-rolled or hot-rolled steel plates and strips on continuous roll forming units. It also applies to continuously hot-dip galvanized steel (hereinafter referred to as galvanized steel).

This document does not apply to sectional steel formed by cold bending and welding of galvanized steel sheets and strips.

2 Normative references

GB/T 222

GB/T 228.1

GB/T 229

GB/T 470-2008

GB/T 699

GB/T 700

GB/T 709

GB/T 714

GB/T 1591

GB/T 2101

GB/T 2102

GB/T 2975

GB/T 3280

GB/T 4171

GB/T 8170

GB/T 20066

GB/T 20878

GB/T 33162

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 Free edge

In open-sectional steel, an edge that only one end has a rounded corner (R-angle).

3.2 Non-free edge

In open-sectional steel, an edge that both ends have rounded corners (R-angle).

4 Ordering details

The contracts or orders placed in accordance with this document include the following.

a) Reference to this document;

b) Product name;

c) Steel designation;

d) Delivery weight;

e) Dimensions and shape;

f) Special requirements.

5.1 Closed-sectional steel is classified into square, rectangular, and circular shapes

according to its external shape. Their codes are as follows.

a) Square sectional steel (also known as square tube). F;

b) Rectangular sectional steel (also known as rectangular tube). J;

c) Circular sectional steel (also known as circular tube). Y (or phi).

5.2 Open-section sectional steel is classified into nine types according to the cross-

sectional shape. Their codes are as follows.

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 inward-curled channel steel. CN;

f) Cold forming outward-curled channel steel. CW;

g) Cold forming Z-shaped steel. Z;

h) Cold forming rolled-edge Z-shaped steel. ZJ;

i) Cold forming rolled-edge equal angle steel. JJ.

6.1.1 Closed-sectional steel

6.1.1.1 The cross-sectional view of the square sectional steel is shown in Figure 1.The cross-sectional dimensions, allowable deviations, theoretical weight, cross-sectional area, and cross-sectional properties shall conform to the provisions of Table 1.The cross-sectional area, cross-sectional property parameters, and surface area per meter of length are for reference only.

6.1.1.2 The cross-sectional view of the rectangular sectional steel is shown in Figure 2.

The cross-sectional dimensions, allowable deviations, theoretical weight, cross- sectional area, and cross-sectional properties shall conform to the provisions of Table

2 The cross-sectional area, cross-sectional property parameters, and surface area per

meter of length are for reference only.

6.1.1.3 The cross-sectional view of the circular sectional steel is shown in Figure 3.The cross-sectional dimensions, allowable deviations, theoretical weight, cross-sectional area, and cross-sectional properties shall conform to the provisions of Table 3.The cross-sectional area, cross-sectional property parameters, and surface area per meter of length are for reference only.

6.1.1.4 The cross-sectional properties of closed-sectional steel can be calculated