

ICS 25.160.01

CCS J 33



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

GB/T 324-2008

**Weld symbolic representation on drawings
(English Translation)**

Issued on: June 26, 2008

Implemented on: January 1, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

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Foreword

ISO 2553.1992 Welded, brazed and soldered joints -- Symbolic representation on drawings (English edition) was modified and referenced in this Standard.

Compared with ISO 2553.1992, the major differences are as follows.

- Foreword of the International Standard has been removed;
- ISO 123.1982, ISO 544.1989, ISO 1302.1978, ISO 2560.1973, ISO 3098-1.1974, ISO 3581.1976, and ISO 8167.1989 have been removed from the normative references, and GB/T 12212-1990 has been added;
- Several supplementary symbols have been added;
- The dimensioning method has been refined;
- Some examples from the International Standard have been removed.

This Standard is the substitute for GB/T 324-1988 Weld symbolic representation on drawings.

Compared with GB/T 324-1988, the major changes in this Standard are as follows.

- The scope of application has been extended to brazed joints;
- 7 basic symbols have been added;
- The original "auxiliary symbols" and "supplemental symbols" are

combined into "supplemental symbols", in which a smooth blending symbol is added; and the original backing strip is subdivided into permanent backing strip and removable backing strip;

- The example section has been adapted to practical and concise principles.

Annex A of this Standard is an informative annex.

This Standard was proposed by and shall be under the jurisdiction of the National Technical Committee for Standardization of Welding.

Drafting organizations of this Standard. Harbin Welding Research Institute, Beijing Electric Power Construction Co., Ltd, and Lanzhou LS Machinery Equipment Co., Ltd.

Main drafters of this Standard. Piao Dongguang, Ren Yongning, and Lei Wanqing.

Weld symbolic representation on drawings

1 Scope

This Standard specifies the rules for weld symbolic representation.

This Standard applies to the symbolic labeling of welded joints.

2 Normative references

The provisions in the following documents become the provisions of this Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard. However, parties who reach an agreement based on this Standard are encouraged to study if the latest editions of these documents are applicable. For undated references, the latest editions apply to this Standard.

GB/T 5185 Welding and allied processes -- Nomenclature of processes and reference numbers (GB/T 5185-2005, ISO 4063:1998, IDT)

GB/T 12212 Technical drawings -- Dimensions, proportions and simplified representation for welding symbols

GB/T 16672 Welds -- Working positions -- Definitions of angles of slope and rotation (GB/T 16672-1996, idt ISO 6947.1993)

GB/T 19418 Arc-welded joints in steel -- Guidance on quality levels for imperfections (GB/T 19418-2003, ISO 5817.1992, IDT)

3 General

Weld symbols are recommended when welds or joints are required on technical drawings or documents. If necessary, it may also be indicated with the general recommendations for technical drawings.

The symbolic representation shall clearly give all necessary indications regarding the specific weld to be obtained without over-burdening the drawing with notes.

Complete weld symbols include elementary symbols, leading lines, supplementary symbols, dimension symbols and data. For simplification, the elementary symbols and leading lines are usually only used when marking joint", and the opposite side refers to "other side of the joint", as shown in Figure 2.

Figure 2 -- Examples of "arrow side" and "other side" of the joint

5.2.2 Reference line

The reference line shall preferably be drawn parallel to the bottom edge of the drawing, or if necessary perpendicular.

The positions of the continuous and dashed lines can be interchanged as needed.

5.3 Position of the elementary symbol with regard to the reference line

- When the elementary symbol is placed on the continuous line side, it indicates to be welded on the arrow side, as shown in Figure 3a);
- When the elementary symbol is placed on the dashed line side, it indicates to be welded on the other side, as shown in Figure 3b);

- Symmetrical welds allow for the omission of dashed lines, as shown in Figure 3c);
- In the case of a clear distribution of the weld location, some double-sided welds may also allow for the omission of dashed lines, as shown in Figure 3d).

a) To be welded on the arrow side of the joint

Joint A

Joint B

Arrow line

Arrow lineArrow line

Arrow line

Other side of joint A Other side of joint A

Other side of joint B

Other side of joint B

Arrow side of joint A

Arrow side of joint A

Arrow side of joint B

Arrow side of joint BJo

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