

JIS

JAPANESE INDUSTRIAL STANDARD

**General rules
for marking on valves**

JIS B 2004—1994

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**In the event of any doubt arising,
the original Standard in Japanese is to be final authority.**

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J I S

General rules for marking on valves

B 2004-1994

1. Scope This Japanese Industrial Standard specifies the general rules for marking on valves specified in JIS B (mechanical engineering) division.

- Remarks
1. It is preferable to apply also to the valves of other divisions.
 2. The standards cited in this Standard are given in Attached Table 6.
 3. The International standards corresponding to this Standard are given in the following:
 ISO 5209-1977 General purpose industrial valves — Marking
 IEC 534-5-1982 Industrial-process control valves, Part 5:
 Marking

2. Definitions For the purposes of this Standard, definitions specified in JIS B 0100 apply and for others the following apply:

- (1) mandatory marking item Marking item necessarily to be marked on valves.
- (2) optional marking item Marking item specified by selecting in product standard of individual valve.

3. Marking

3.1 General items General items of marking shall be as given in the following:

- (1) The marking shall be of size and shape adequate to the valve, be carried out according to a reasonable method relating to the structure and strength, be read out clearly, and be durable.
- (2) The application division of marking items is shown in Attached Table 1.
- (3) The marking positions and marking methods of marking items are shown in Attached Table 2.
- (4) Marking items other than those specified in this Standard shall be in accordance with the specifications of individual product standard.

3.2 Marking items The marking items shall be as given in the following:

- (1) Manufacturer's name or trademark For the manufacturer's name, the abbreviation may be used.
- (2) Nominal pressure
- (3) Nominal size Nominal size series A specified in JIS B 2001 shall generally be used. However, for screwed end valve, nominal size series B may be used.

- (4) Materials of valve body and bonnet The materials of valve body and bonnet shall be marked by using the symbol expressing the material or its abbreviation, and for abbreviation the marking symbol shown in Attached Table 3 shall be used.
- (5) Arrow mark indicating flow direction of fluid Valves which can be used only in one direction relating to flow direction of fluid shall be marked with arrow mark indicating the flow direction of fluid.
- (6) Letters and arrow marks indicating open and shut The letters and arrow marks indicating open and shut shall be as given in the following:
- Letters and arrow marks indicating open and shut shall be marked in combination.
 - In the case of the valve incapable of being marked with both directions of open and shut owing to its size, shape, etc., only the open direction may be marked.
 - The letters indicating open and shut directions shall generally be in accordance with the following:

開	閉
OPEN	SHUT
O	S

- (7) Year of manufacture
- (8) Manufacturing number The manufacturing number shall be that by which the history of the product can be identified.
- (9) Melt identification For the melt identification, a symbol may be used.
- (10) Materials of trim Materials of trim of the valve such as valve stem, valve seat, etc. shall be marked by using marking symbol shown in Attached Table 4.
- (11) Materials of bonnet bolts and nuts The materials of bonnet bolts and nuts shall be marked by using marking symbols shown in Attached Table 5.
- (12) Type of screw thread of connection end
- (13) Uses of valve The uses of valve shall be marked with the symbol indicating the use of valve specified in product standard.
- Example: In the case of use for water works WATER
- | | |
|---------------------------------|-------------------------------------|
| In the case of cast steel valve | For general mechanical apparatus, M |
| | For chemical apparatus, C |
- (14) Ring number In the case where the both end flanges or bonnet flange is ring joint type, the ring number of ring joint gasket shall be marked.
- (15) Materials of lining and coating The material and the like of lining and coating shall be marked.
- (16) Maximum working temperature The maximum working temperature of valve under the ordinary working condition shall be marked.

The temperature shall be marked by °C.

- (17) Maximum permissible working pressure The maximum permissible working pressure corresponding to the maximum working temperature of valve shall be marked.

For the pressure unit, MPa shall be used.

- (18) Capacity coefficient The capacity coefficient shall generally be marked by any one of Av , Kv or Cv , when the valve is fully opened.
- (19) Maximum flow velocity The maximum flow velocity shall be expressed by the average flow velocity corresponding to sectional area equal to nominal size of valve at the maximum value of permissible flow velocity when the valve is fully opened.

The unit shall be m/s.

- 3.3 Marking position The marking position shall be as given in the following:

- (1) Marking on valve body shall be on an easily visible surface of the valve body.
- (2) An identification plate shall be attached to the easily visible position such as surface of valve body, surface of bonnet, yoke, upper surface of handle, surface of operating machine, etc.
- (3) Marking on handle shall be made on an easily visible surface of the handle.
- (4) Bolts shall be marked on end surface, and nuts, on upper surface or side surface.

- 3.4 Marking methods The marking methods shall be as given in the following:

- (1) Marking shall be carried out according to any one of methods ⁽¹⁾ of casting, carved stamping, forging out or identification plate.

Note ⁽¹⁾ Faucets may be marked according to corrosion (etching), printing or sand blast.

- (2) Marking appearing not clearly may be corrected or reproduced according to an adequate method.
- (3) In the case of carrying out carved stamping, any adverse effect which causes fissures or makes the part less than the permissible thickness shall not be given to the valve.

Further, in case where these problems exist, it shall be marked by providing the stamping seat.

In case where the stamping is impossible due to resin-powder coating or the like, the method by press marking may also be used.

- (4) The identification plate shall generally be in accordance with JIS Z 8304, and be attached according to such suitable method that it does not fall down easily.

Further, the material of identification plate shall be specified in individual standard.

Related standards:

- JIS B 2011 Bronze gate, globe, angle and check valves
- JIS B 2031 Gray cast iron valves
- JIS B 2032 Wafer-type rubber-seated butterfly valves
- JIS B 2051 Malleable iron 10 K screwed valves
- JIS B 2071 Cast steel flanged valves
- JIS B 2191 Screwed bronze plug cocks and gland cocks