

JIS

JAPANESE INDUSTRIAL STANDARD

Roundness of Castings

JIS B 0703—1987

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JAPANESE INDUSTRIAL STANDARD

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Roundness of Castings

B 0703-1987

1. Scope

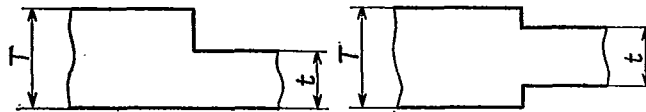
This Japanese Industrial Standard specifies the roundness of corners and the roundness of edges of the wall thickness transition parts and crossing parts of castings by sand moulds (excluding precision sand moulds of shell moulds and others).

2. Definitions

For the purposes of this Standard, the following definitions apply:

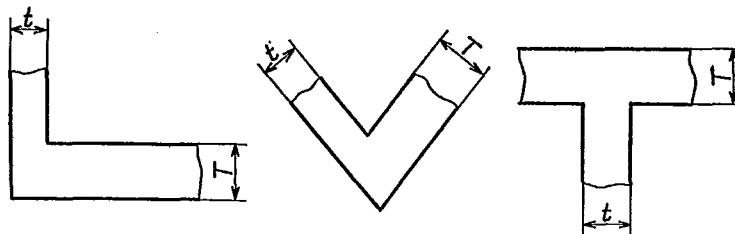
- (1) wall thickness transition part A part where the thickness of a casting changes (see Fig. 1).

Fig. 1



- (2) crossing part A part where the casting forms a crossing of L shape, V shape or T shape (see Fig. 2).

Fig. 2

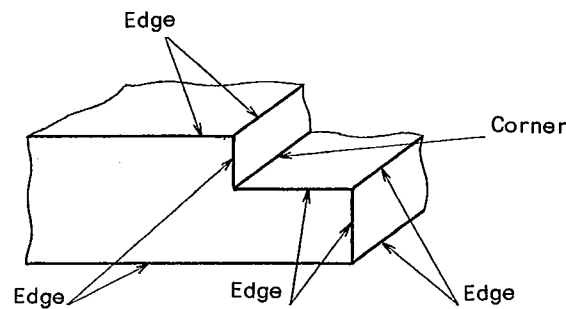


- (3) edge and corner An edge is a protruding part of surfaces of a casting, and a corner is a part bent inward (see Fig. 3).

Applicable Standard:

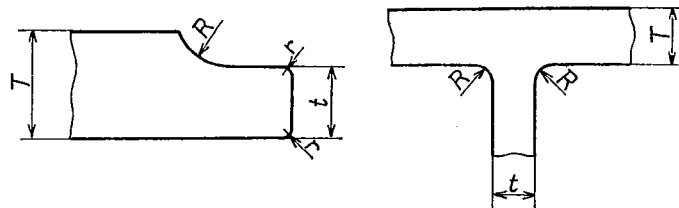
JIS B 8601-Graphical Symbols for Refrigerating Systems

Fig. 3



- (4) value of roundness A dimension of radius indicating the roundness of edges and roundness of corners of the wall thickness transition part and the crossing part of the casting (see Fig. 4).

Fig. 4



R : values of roundnesses of corners at wall thickness transition part and crossing part

r : value of roundness of corner

T : wall thickness of thick wall part

t : wall thickness of thin wall part

3. Roundness Values of Corners in Wall Thickness Transition Part and Crossing Part

The roundness values of corners in wall thickness transition part and crossing part shall be in accordance with Table 1.

Table 1. Roundnesses of Corner in Wall Thickness Transition Part and Crossing Part

Unit: mm

Material	Roundness value $R^{(1)}$															
Grey iron castings																
Malleable iron castings																
Spheroidal graphite iron castings																
Brass castings	(2)	3	4	5	6	8										
Bronze castings																
High strength brass castings							10	12	16	20	25	30	40	50	60	80 100
Aluminium alloy castings																
Magnesium alloy castings																
Carbon steel castings																
Low alloy steel castings	-	-	-	(5)	(6)											
Stainless steel castings	-	-	-	(5)	(6)	(8)										

Note (1) The standard of actual application of R is given in Reference 1.

Remarks 1. The roundness values given in parentheses should preferably be not used as far as possible.

2. In the case where the roundness value exceeds 100 mm, R 10 of JIS Z 8601 shall be conformed to.