

JIS

JAPANESE INDUSTRIAL STANDARD

**Geared Type
Shaft Couplings**

JIS B 1453—1988

Translated and Published

by

Japanese Standards Association

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

JAPANESE INDUSTRIAL STANDARD

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Geared Type Shaft Couplings

B 1453-1988

1. Scope

This Japanese Industrial Standard specifies the geared type shaft couplings within the following ranges, hereinafter referred to as the "couplings", of those for general use.

- (1) Peripheral velocity of the outside diameter of couplings: 40 m/s or under
- (2) Revolution of couplings: $66.67s^{-1}$ {4000 rpm} or under

Remark: In this Standard, the units and numerical values in { } are based on traditional units and appended for information only.

2. Classification

Couplings are classified according to the construction as given in Table 1.

Table 1. Classification

Unit: mm

Classification	Symbol of type	Range of nominal outside diameter of coupling	Range of maximum diameter of shaft hole	Remarks
Standard•Standard type	SS	100 to 400	25 to 180	See Figs. in Attached Table 1
Standard•Mill motor type	SM			
Standard•Extended shaft type	SE			
Side cover•Side cover type	CC	450 to 1250	200 to 560	See Figs. in Attached Table 2
Side cover•Extended shaft type	CE			

3. Names of Principal Parts

The names of principal parts of couplings shall be as given in Table 5, and as shown in Figures in Attached Tables.

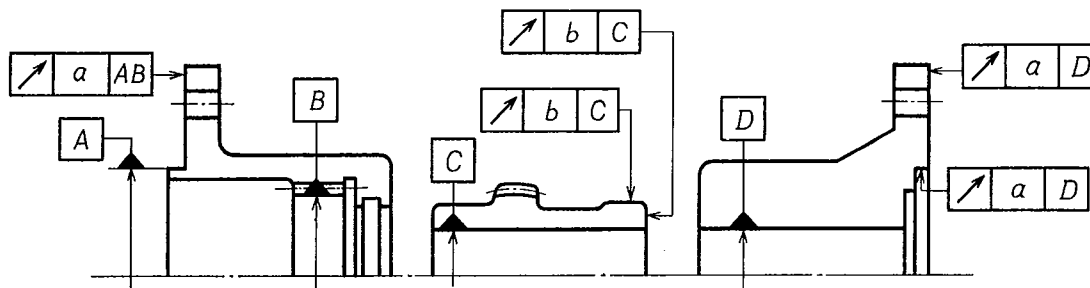
Applicable Standards: See page 8.

4. Quality

4.1 The coupling body and coupling bolts shall be free from injurious flaws and cracks.

4.2 The deviations of the outer cylinder shall be measured, taking its fitting part and tip cylinder as the reference, and those of the inner cylinder and the fixed flange shall be measured, taking the centre of the shaft hole as the reference, and the permissible values for them shall be, in general, as given in Table 2.

Table 2. Deviations of Each Part



Unit: mm

Type	Permissible value	
	<i>a</i>	<i>b</i>
SS, SM, SE	0.05 max.	0.03 max.
CC, CE	0.08 max.	0.05 max.

4.3 The accuracy of the teeth of outer and inner cylinders shall conform to Table 3.

Table 3. Accuracy of Teeth

Type	Gear teeth	Grade of accuracy ⁽¹⁾	
		Pitch variation	Radial runout
SS, SM, SE	External gear teeth	—	Grade 4
	Internal gear teeth		
CC, CE	External gear teeth	Grade 5	Grade 5 ⁽²⁾
	Internal gear teeth	Grade 6	Grade 5 ⁽²⁾

Notes ⁽¹⁾ To external teeth, apply JIS B 1702 and to internal teeth, also apply this with necessary modification.

⁽²⁾ The values shall be taken on the teeth at four positions approximately equally spaced on the circumference.