

JIS

JAPANESE INDUSTRIAL STANDARD

Removal in Grindings

JIS B 0711 —1976

Translated and Published

by

Japanese Standards Association

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JAPANESE INDUSTRIAL STANDARD

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Removal in Grindings

B 0711-1976
(Reaffirmed: 1984)1. Scope

This Japanese Industrial Standard specifies stock removal in grinding when the stock removal in grinding is not particularly specified for ground surface of iron and steel (ground surface of cylindrical grinding, internal grinding and surface grinding).

2. Terms

The meanings of the terms to be used in this standard shall comply with the following particulars:

- (1) Stock Removal in Grinding The term shall be defined as the dimensional excess to be left over to the work in pre-machining so that the work may be economically ground into the prescribed dimension, shape and surface roughness.
- (2) Pre-machining The term shall be defined as the operation to cut the work till the condition to leave the prescribed stock removal in grinding.

3. Kind of Stock Removal in Grinding

The kind of stock removal in grinding to be prescribed in this standard shall be of the following types:

Cylindrical stock removal in grinding-grinding by centre support and grinding by chuck support

Internal stock removal in grinding-grinding by chuck support

Surface stock removal in grinding-grinding by chuck support and grinding by table support

4. Cylindrical Stock Removal in Grinding

4.1 Pre-machining The pre-machining shall be done with lathe.

4.2 Stock Removal in Grinding

4.2.1 The stock removal in grinding per diameter of the work to be ground without being heat treated after turning shall comply with Table 1 (1).

4.2.2 The stock removal in grinding per diameter of the work to be ground through with hardening and tempering after turning shall comply with Table 1 (2).

4.3 Pre-machining Dimension The pre-machining dimension shall be the value which adds the stock removal in grinding found from 4.2 to the numerical value rounded-off to decimal one digit by counting fractions of .5 and over as a unit and discarding the rest in the decimal two digits of the maximum finish dimension of the grinding surface diameter.

Table 1. Stock Removal in Grinding per Diameter Cylinder

(1) Without Heat Treatment after Pre-machining

Unit: mm

Distance from end surface Diameter D l	16 and under	Over 16 to 25 incl.	Over 25 to 40 incl.	Over 40 to 63 incl.	Over 63 to 100 incl.	Over 100 to 160 incl.	Over 160 to 250 incl.	Over 250 to 400 incl.	Over 400 to 630 incl.	Over 630 to 1000 incl.	Over 1000 to 1600 incl.
Over 6 to 10 incl.	0.1	0.2	0.2	0.3	0.3	—	—	—	—	—	—
Over 10 to 18 incl.	0.1	0.1	0.2	0.2	0.3	0.3	—	—	—	—	—
Over 18 to 30 incl.	0.1	0.1	0.2	0.2	0.2	0.3	0.4	—	—	—	—
Over 30 to 50 incl.	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	—	—	—
Over 50 to 80 incl.	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	—	—
Over 80 to 120 incl.	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.6	—
Over 120 to 180 incl.	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.7
Over 180 to 250 incl.	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6
Over 250 to 315 incl.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6
Over 315 to 400 incl.	—	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6
Over 400 to 500 incl.	—	—	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6

(2) Through with Hardening and Tempering after Pre-machining

Unit: mm

Distance from end surface Diameter D l	16 and under	Over 16 to 25 incl.	Over 25 to 40 incl.	Over 40 to 63 incl.	Over 63 to 100 incl.	Over 100 to 160 incl.	Over 160 to 250 incl.	Over 250 to 400 incl.	Over 400 to 630 incl.	Over 630 to 1000 incl.	Over 1000 to 1600 incl.
Over 6 to 10 incl.	0.2	0.2	0.2	0.3	0.5	—	—	—	—	—	—
Over 10 to 18 incl.	0.2	0.2	0.2	0.3	0.4	0.5	—	—	—	—	—
Over 18 to 30 incl.	0.2	0.2	0.2	0.3	0.4	0.5	0.6	—	—	—	—
Over 30 to 50 incl.	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.7	—	—	—
Over 50 to 80 incl.	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.6	0.8	—	—
Over 80 to 120 incl.	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.7	0.9	—
Over 120 to 180 incl.	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.8	1.1
Over 180 to 250 incl.	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.8	1.0
Over 250 to 315 incl.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.7	0.9
Over 315 to 400 incl.	—	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	0.9
Over 400 to 500 incl.	—	—	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.8



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