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JIS B 4502 - 1996

Thread rolling flat dies

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Thread rolling flat dies

1 Scope This Japanese Industrial Standard specifies the thread rolling flat dies(1) (hereafter referred to as "dies") to be used for thread rolling of the external screw threads given in the following.

Note (1) The dies comprise a set of two pieces of moving die and stationary die.

Type of screw threads	Designation of screw threads	Applicable standard
Metric coarse screw threads	M2 to M24	JIS B 0205
Metric fine screw threads	M4×0.5 to M24×1	JIS B 0207

Remarks: The standards cited in this Standard are given in the following:

JIS B 0101 *Screw threads and fasteners – Vocabulary*
JIS B 0123 *Designation of screw threads*
JIS B 0176 *Threading tools – Vocabulary*
JIS B 0205 *Metric coarse screw threads*
JIS B 0207 *Metric fine screw threads*
JIS B 0271 *Three wires for screw thread measuring*
JIS B 0601 *Surface roughness – Definitions and designation*
JIS B 0659 *Roughness comparison specimens*
JIS B 3102 *Gauge blanks for screw thread limit gauges*
JIS B 7153 *Measuring microscopes*
JIS B 7184 *Measuring projectors*
JIS B 7502 *Micrometer callipers*
JIS B 7503 *Dial gauges*
JIS B 7507 *Vernier, dial and digital callipers*
JIS B 7513 *Precision surface plates*
JIS B 7519 *Microindicators*
JIS B 7524 *Feeler gauges*
JIS B 7526 *Squares*
JIS B 7726 *Rockwell and Rockwell superficial hardness testing machines*
JIS G 4404 *Alloy tool steels*
JIS Z 2245 *Method of Rockwell and Rockwell superficial hardness test*

2 Definitions The definitions of main terms to be used in this Standard shall be in accordance with JIS B 0176 and JIS B 0101.

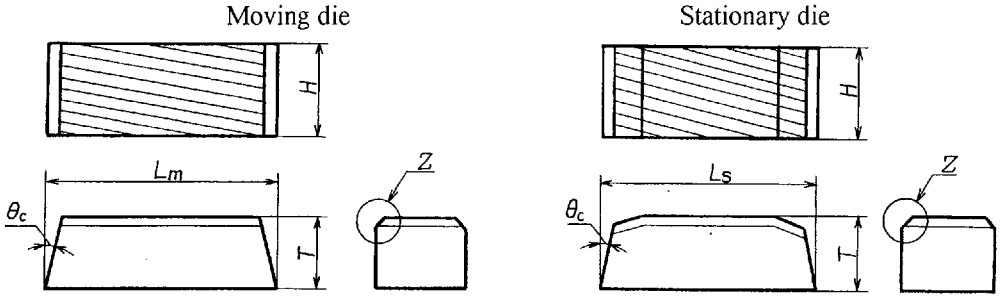
3 Types The dies shall be classified into two types of thread rolling single dies and thread rolling duplex dies according to the shapes.

4 Shapes and dimensions

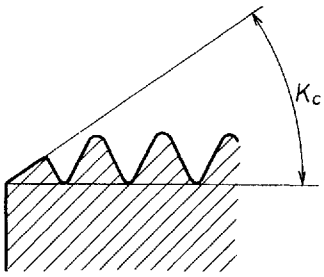
4.1 Shapes and dimensions The shapes and dimensions of dies shall be in accordance with Table 1.

Table 1 Shapes and dimensions of dies

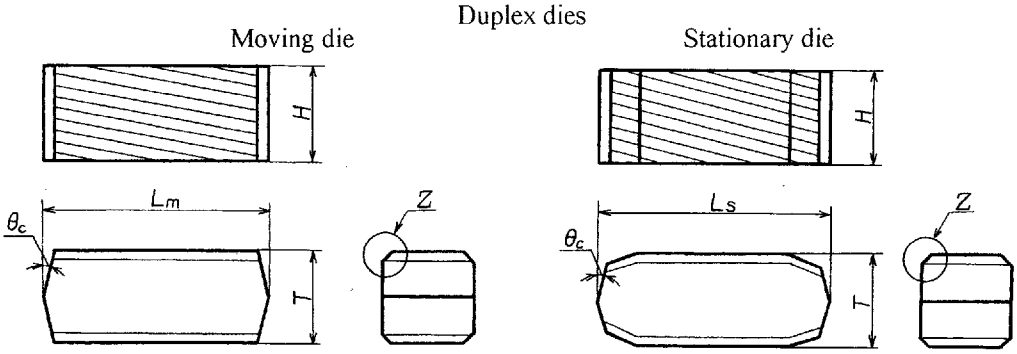
Single dies



Enlarged diagram of Z



Duplex dies



Remarks 1 The clamping angle θ_c shall generally be $0° \pm 30'$ or $5°\ {}^{0}_{-1°}$.

2 The chamfer angle K_c of thread part shall generally be 30°.

The shape of the crest after chamfering process shall be as agreed between the parties concerned with delivery.

3 The sizes and shapes of lead-in and run-off respectively shall be as agreed between the parties concerned with delivery.

4 The lead angle shall generally be the lead angle at the basic pitch diameter of screw threads to be thread rolled.