

# JIS

## JAPANESE INDUSTRIAL STANDARD

### Hot presses — Test and inspection methods

JIS B 6548—1991

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Hot presses - Test and inspection methods

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1. Scope

This Japanese Industrial Standard specifies the construction, nominal sizes, functional tests, running tests, and methods for accuracy inspections and machining accuracy inspections of the hot presses for the woody boards of 1800 mm x 900 mm x 35 mm or over to 4300 mm x 1800 mm x 70 mm or under in dimensions of hot platens<sup>(1)</sup>.

Note (1) The size of hot platen means the length of longer side x length of shorter side x thickness.

Remarks 1. The applicable standards to this Standard are as given in the following:

JIS B 0659 Roughness comparison specimens

JIS B 6521 Methods of measurements for noise emitted by wood working machinery

JIS B 7512 Steel tape measures

2. In this Standard, the units and numerical values given in { } are in accordance with the conventional units, and are appended for informative reference.

2. Construction

The respective parts of the hot press shall have sufficient rigidity respectively, and shall be those which are not inflicting ill influence on the machining accuracies.

3. Nominal sizes

The nominal sizes of the hot presses shall be in accordance with Table 1, being expressed by the dimensions of the hot platens.

Table 1. Nominal sizes

Unit: mm

| Dimensions of hot platen |           |                    |                        |           |                    |              |           |                    |
|--------------------------|-----------|--------------------|------------------------|-----------|--------------------|--------------|-----------|--------------------|
| Length of longer side    |           |                    | Length of shorter side |           |                    | Thickness    |           |                    |
| Nominal size             | Dimension | Permissible values | Nominal size           | Dimension | Permissible values | Nominal size | Dimension | Permissible values |
| 1 800                    | 1 800     | ±20                | 900                    | 900       | ±20                | 35           | 35        | ±1                 |
| 2 000                    | 2 000     |                    | 1 000                  | 1 000     |                    | 40           | 40        |                    |
| 2 100                    | 2 100     |                    | 1 100                  | 1 100     |                    | 45           | 45        |                    |
| 2 300                    | 2 300     |                    | 1 150                  | 1 150     |                    | 50           | 50        |                    |
| 2 400                    | 2 400     |                    | 1 300                  | 1 300     |                    | 55           | 55        |                    |
| 2 600                    | 2 600     |                    | 1 400                  | 1 400     |                    | 60           | 60        |                    |
| 2 700                    | 2 700     |                    | 1 600                  | 1 600     |                    | 65           | 65        |                    |
| 2 900                    | 2 900     |                    | 1 700                  | 1 700     |                    | 70           | 70        |                    |
| 3 050                    | 3 050     |                    | 1 800                  | 1 800     |                    |              |           |                    |
| 3 200                    | 3 200     |                    |                        |           |                    |              |           |                    |
| 3 300                    | 3 300     |                    |                        |           |                    |              |           |                    |
| 4 100                    | 4 100     |                    |                        |           |                    |              |           |                    |
| 4 350                    | 4 350     |                    |                        |           |                    |              |           |                    |

Remarks: The hot press is designated by the name, nominal size, number of stages and total compressive force (N) {kgf}.

Example: Hot press 2600 x 1400 x 35-20-4.9 x 10<sup>6</sup> {500 x 10<sup>3</sup>}

#### 4. Methods of functional tests

The functional tests of the hot press shall be in accordance with Table 2.

Table 2. Functional tests

| Number | Test item                | Test method                                                                                          |
|--------|--------------------------|------------------------------------------------------------------------------------------------------|
| 1      | Electric system          | Examine the insulation condition once each before and after the running test.                        |
| 2      | Heating system           | Examine the reliabilities of functions of magnet valve, steam trap and so on.                        |
| 3      | Cooling system           | Examine the smoothness and reliability of function.                                                  |
| 4      | Hydraulic system         | Examine the reliabilities of functions of oil tightness, pressure regulation and so on.              |
| 5      | Vertical movement of ram | Examine the reliability and smoothness of operation.                                                 |
| 6      | Safety device            | Examine the reliabilities of safety functions for operators and of protecting functions for machine. |
| 7      | Lubricating oil system   | Examine the reliabilities of functions of oil tightness, adequate distribution of oil and so on.     |
| 8      | Accessories              | Examine the reliabilities of functions.                                                              |

Remarks: For a hot press which is not provided with any one of the foregoing functions, the test item corresponding to this in Table 2 shall be omitted.

#### 5. Methods for load running tests

Allow the ram to operate, continue running for 30 to 60 min, and carry out inspection on each item specified in Table 3. In this case, measure each item specified in Table 4 Record Form 1 to record, as well as observe abnormal vibrations by the sense of touch.

Furthermore, the measurement of noise shall be in accordance with JIS B 6521.