

JIS

JAPANESE INDUSTRIAL STANDARD

Hexagon head tapping screws

Ⓒ **JIS B 1123**—1996

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Hexagon head tapping screws

B 1123-1996

1. Scope This Japanese Industrial Standard specifies the steel hexagon head tapping screws (hereafter, referred to as “steel tapping screws”) for general use.

- Remarks
1. The hexagon head tapping screws not in accordance with the text of this Standard are specified in Annex.
 2. The standards cited in this Standard are given in the following:

JIS B 0101	Screw threads and fasteners – Vocabulary
JIS B 1007	Threads and thread ends for tapping screws
JIS B 1012	Cross recesses for screws
JIS B 1021	Tolerance system for threaded fasteners
JIS B 1044	Threaded components – Electroplated coatings
JIS B 1055	Tapping screws – Mechanical properties
JIS B 1071	Method of verification for size and geometry of threaded fasteners
JIS B 1091	Fasteners – Acceptance inspection
JIS G 3539	Carbon steel wires for cold heading and cold forging
JIS G 4051	Carbon steels for machine structural use
JIS G 4315	Stainless steel wires for cold heading and cold forging
 3. The International Standard corresponding to the text of this Standard is given in the following.

ISO 1479: 1983	Hexagon head tapping screws
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2. Definitions For the purpose of this Standard, the definitions given in JIS B 0101 apply.

3. Classification The steel tapping screws shall be classified into two types of Type C and Type F according to the shapes of screw end specified in the text of JIS B 1007.

4. Quality The quality of steel tapping screws shall be in accordance with Table 1.

Table 1. Qualities of steel tapping screws

Division	Quality
Screw threads	In accordance with Type C or Type F of the text of JIS B 1007.
Mechanical properties	In accordance with 4. of the text of JIS B 1055.
Tolerances	In accordance with product grade A of JIS B 1021.
Surface treatment	The steel tapping screws shall not generally be processed with surface treatment. When the surface treatment of plating or the like is required particularly, the purchaser shall designate. Further, when electroplating is to be processed, it shall be in accordance with JIS B 1044.
Surface conditions	The surface shall be smooth, and be free from such harmful defects in use such as cracks, flaws, flashes, burrs, rust and the like.

5. Shapes and dimensions The shapes and dimensions of steel tapping screws shall be in accordance with Attached Table 1.

6. Materials The materials of steel tapping screws shall be in accordance with 3. of the text of JIS B 1055.

7. Inspections The inspection on steel tapping screws shall be in accordance with the following:

- (1) The inspection on mechanical properties shall be carried out in accordance with 6. of the text of JIS B 1055, and the results shall conform to the requirements specified in 4. of the text of JIS B 1055.
- (2) The inspection on shapes and dimensions of threaded portion shall be carried out by the direct measurement, and the results shall conform to 3. of the text of JIS B 1007.
- (3) The inspection on shapes and dimensions of portions except the threaded portion shall be carried out in accordance with the measuring method for dimensions of respective parts of JIS B 1071 or method instead of this, and the values thereof shall conform to the values of Attached Table 1.

Further, the inspection on the geometrical tolerances shall be carried out in accordance with the measuring method of geometrical deviations of JIS B 1071 or the method instead of this, and the values thereof shall conform to the tolerances of product grade A specified in JIS B 1021.

- (4) The inspection on surface conditions shall be carried out visually, and the results shall conform to Table 1.
- (5) The acceptance inspection, unless particularly designated, shall be in accordance with JIS B 1091.

8. **Designation** The steel tapping screws shall be designated by the Standard number⁽¹⁾, type of steel tapping screws, type according to shapes of screw end, designation of threads $\times$ nominal length (l) and designated matter⁽²⁾.

Notes (1) The Standard number, unless particularly required, may be omitted.

(2) The designated matter shall indicate the type of surface treatment or the like, as required.

Examples:

JIS B 1123	Hexagon head tapping screw	—	Type C	—	ST3.5 $\times$ 13	A2K ⁽³⁾
	Hexagon head tapping screw	—	Type F	—	ST4.8 $\times$ 16	
 (Standard No.)	 (Type of steel tapping screw)	 (Type of screw end)	 (Designation of thread $\times l$)	 (Designated matter)		

Note (3) A2K shall be in accordance with the symbol of Annex D to JIS B 1044.

9. Markings

9.1 **Marking on products** The marking on products of steel tapping screws shall not generally be made.

9.2 **Marking on packages** The packages of steel tapping screws shall be marked with the following information on the outer surfaces.

- (1) Type of steel tapping screws
- (2) Type according to shapes of screw ends
- (3) Designation of threads $\times$ nominal length
- (4) Designated matter
- (5) Quantity
- (6) Manufacturer's name or abbreviation⁽⁴⁾

Note (4) As to the abbreviation, the registered trademark should preferably be used as far as possible.