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☞ JIS B 4632 : 1998

Offset wrenches

ICS

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently JIS B 4632:1994 is replaced with JIS B 4632:1998.

In this revision, Annex to this Standard has been prepared based on corresponding International Standards without any modification of technical contents to conform to ISOs. Further, to make difference between them minimize, a partial content of the former Standard has been amended in the body of this Standard.

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Divisional Council on Machine Elements

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Offset wrenches

Introduction This standard is Japanese Industrial Standard prepared on the basis of the International Standards shown in the Remarks. However, in the main body of this Standard, the classification and grade specified conventionally in Japanese Industrial Standard and their shape and dimensions, quality, inspection, designation of products and marking are described. In Annex, relevant provisions in the corresponding International Standards are described without modifying the technical content. Further, specifications not contained in the corresponding International Standards (appearance, inspection, designation of products and marking) are additionally included in the Annex as a part of Japanese Industrial Standard.

The provisions underlined with dots in Annex are the matters not specified in the corresponding International Standards.

Remarks: The International Standards corresponding to this Standard are as follows:

- ISO/DIS 691:1996 *Assembly tools for screws and nuts—Wrench and socket openings—Tolerances for general use*
- ISO 1085:1986 *Assembly tools for screws and nuts—Double-ended wrenches—Size pairing*
- ISO 1703:1983 *Assembly tools for screws and nuts—Nomenclature*
- ISO 1711:1975 *Hand operated wrenches and sockets—Technical specifications*
- ISO 3318:1990 *Assembly tools for screws and nuts—Double-headed open-ended wrenches, double-headed ring wrenches and combination wrenches—Maximum widths of heads*
- ISO 10103:1990 *Assembly tools for screws and nuts—Double-headed, flat and offset, box wrenches*
- ISO 10104:1990 *Assembly tools for screws and nuts—Double-headed, deep offset and modified offset, box wrenches*

1 Scope This Japanese Industrial Standard specifies the dodecagon offset wrenches to be used as assembly or disassembly tools for bolts and nuts (hereafter referred to as “wrenches”).

2 Normative reference The following standard contains provisions which, through reference in this Standard, constitutes provisions of this Standard. For this referred standard, only the edition of indicated year constitutes the provisions of this Standard but the revision and supplement made thereafter are not applied.

JIS B 1002:1985 *Dimensions of widths across flats*

3 Classification Wrenches shall be classified into 3 kinds of 15°, 45° and 60° by the angle of shaft, and further, divided 2 types of long type and short type by the overall length.

4 Shape and dimensions The shape, tolerance on width across flats, size pairing and dimensions of wrenches are as follows:

- a) The shape of wrenches should be as Fig. 1.
- b) The tolerance on width across flats of wrenches shall be according to Table 1, and pairing and dimensions, to Table 2.

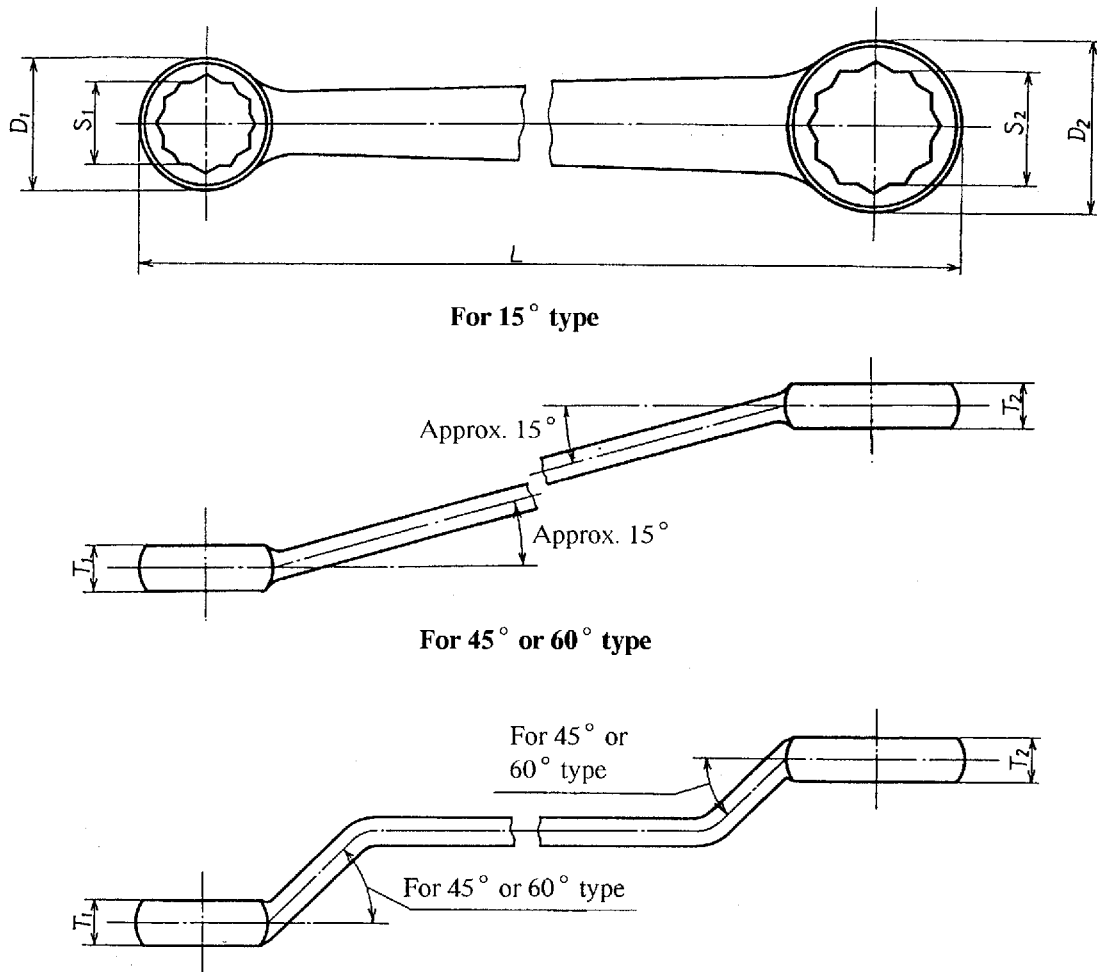


Fig. 1 Shape

Table 1 Tolerance on width across flats

Unit: mm

Nominal size	Tolerance	
	min.	max.
8, 9	+0.03	+0.15
10, 11	+0.04	+0.19
12, 13	+0.04	+0.24
14, 15, 16	+0.05	+0.27
17, 18	+0.05	+0.30
19, 21, 22, 23, 24	+0.06	+0.36
26, 27	+0.08	+0.48

Table 2 Pairing and dimensions

Unit: mm

Nominal size S	Overall length L (Approx.)		Thickness		Outside diameter	
			T_1	T_2	D_1	D_2
	Short type	Long type	max.		max.	
8×9	110	186	7	7.5	15	16
8×10	—	186	7	8	15	17
10×11	—	196	8	8.5	17	18.5
10×12	118	198	8	9	17	20
10×13	120	200	8	10	17	22.5
11×13	120	200	8.5	10	18.5	22.5
12×14	132	222	9	11	20	23
13×15	—	234	10	11	22.5	25
13×16	144	234	10	11.5	22.5	26
13×17	—	245	10	12	22.5	27
14×17	145	245	11	12	23	27
15×16	—	250	11	11.5	25	26
16×18	—	268	11.5	12.5	26	29
17×19	—	274	12	13	27	30
17×21	—	295	12	15	27	33
18×21	—	296	12.5	15	29	33
19×21	—	302	13	15	30	33
19×22	—	302	13	15.5	30	34.5
19×24	—	324	13	16.5	30	37.5
21×23	—	325	15	16	33	36
21×24	—	325	15	16.5	33	37.5
21×26	—	356	15	17	33	39
22×24	—	326	15.5	16.5	34.5	37.5
23×26	—	358	16	17	36	39
24×27	—	359	16.5	18	37.5	40