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JIS B 4636-2 : 1998

Socket wrenches — 6.3 to 25 square
drive

ICS 25.140.30

Descriptors : wrenches, socket wrenches, dimensional tolerances

Reference number : JIS B 4636-2 : 1998 (E)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

This Standard specifies socket wrenches of 6.3, 10, 12.5, 20 and 25 square drive specified in the corresponding International Standards other than 12.7 (12.5) square drive specified in JIS B 4636-1:1998 with viewpoint of international conformity.

JIS B 4636:1998 consists of following two parts:

Part 1: *Socket wrenches — 12.7 mm square drive*

Part 2: *Socket wrenches — 6.3 to 25 square drive*

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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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Socket wrenches — 6.3 to 25 mm square drive

Introduction This Standard is Japanese Industrial Standard to specify the socket wrenches of 6.3, 10, 12.5, 20 and 25 square drive other than those specified in Annex to JIS B 4636-1 based on the international standards indicated in the remarks, without changing the technical contents, and the items (appearance and the like) not specified in the corresponding international standards are added thereto.

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

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

ISO 286-2:1988	<i>ISO system of limits and fits—Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts</i>
ISO/DIS 691	<i>Assembly tools for screws and nuts—Wrench and socket openings—Tolerances for general use</i>
ISO 1174-1:1996	<i>Assembly tools for screws and nuts—Driving squares—Part 1: Driving squares for hand socket tools</i>
ISO 1711-1:1996	<i>Assembly tools for screws and nuts—Technical specifications—Part 1: Hand-operated wrenches and sockets</i>
ISO 2725-1:1996	<i>Assembly tools for screws and nuts—Square drive sockets—Part 1 : Hand-operated sockets—Dimensions</i>
ISO 3315:1996	<i>Assembly tools for screws and nuts—Driving parts for hand-operated square drive socket wrenches—Dimensions and tests</i>
ISO 3316:1996	<i>Assembly tools for screws and nuts—Attachments for hand-operated square drive socket wrenches—Dimensions and tests</i>

1 Scope This Japanese Industrial Standard specifies the manual type socket wrenches to be used as assembly or disassembly tools for the hexagon bolts and nuts.

Informative reference : The socket for socket wrenches of 12.5 square drive, the ratchet handle, the spinner handle, the T-type slide handle, the universal joint, and the extension bar are specified in JIS B 4636-1: 1998, and shall not be specified in this Standard.

2 Types The types of the sockets shall be as given in Table 1.

Table 1 Types of socket wrenches

Name of product
Socket for socket wrench
Ratchet handle for socket wrench
Spinner handle for socket wrench
T-type slide handle for socket wrench
Offset handle for socket wrenches
Speed handle for socket wrench
Driver handle for socket wrench
Universal joint for socket wrench
Extension bar for socket wrench
Adapter for socket wrench

Remarks : As for the name of products, the socket for socket wrench may be abbreviated as "socket", and the ratchet handle for socket wrench may be abbreviated as "ratchet handle".

Further, the products other than sockets may be collected together as the handles for socket wrench, and abbreviated as "handles".

3 Shape and dimensions

3.1 Shape and dimensions of square drive The shape of the square drive shall be preferably as given in Fig. 1 and Fig. 2. The dimensions shall be as given in Table 2 and Table 3.

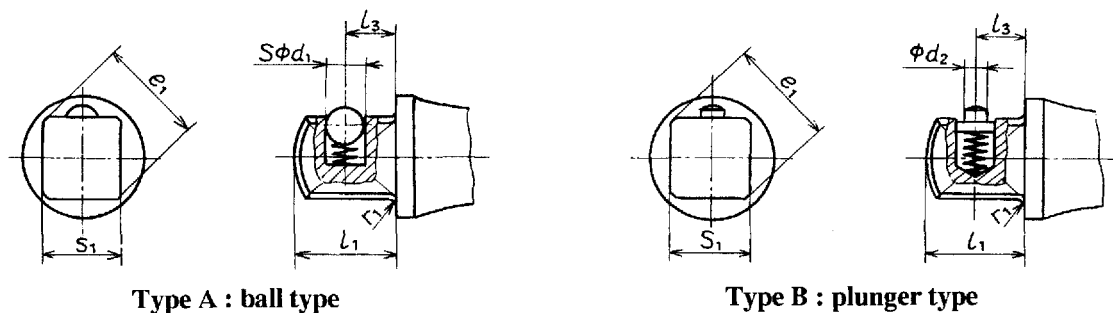


Fig. 1 Shape of projected square drive

Table 2 Dimensions of projected square drive

Unit : mm

Shape	Square drive	Width across flats S_1		d_1 (about)	d_2 (Max.)	e_1		l_1 Max.	l_3	r_1 Max.
		Max.	Min.			Max.	Min.			
A (B)	6,3	6,35	6,26	3	2,0	8,4	8,0	7,5	$4,0 \pm 0,2$	0,5
	10	9,53	9,44	5	2,6	12,7	12,2	11,0	$5,5 \pm 0,2$	0,6
	12,5	12,70	12,59	6	3,0	16,9	16,3	15,5	$8,0 \pm 0,3$	0,8
A and B	20	19,05	18,92	7	4,3	25,4	24,4	23,0	$10,2 \pm 0,3$	1,2
	25	25,40	25,27	8	5,0	34,0	32,4	28,0	$15,0 \pm 0,3$	1,6

Remarks 1 The shape without () is preferable.

2 Combination of B shape with C shape should not be preferably be used.

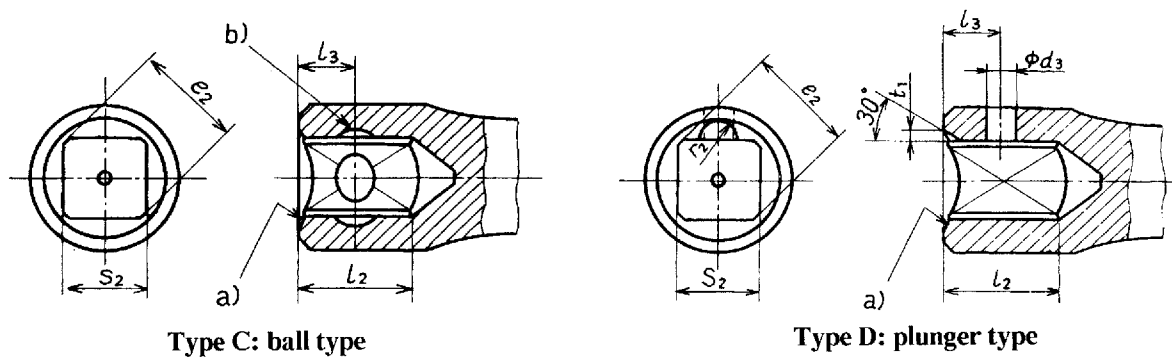


Fig. 2 Recessed square drive

Table 3 Dimension of recessed square drive

Unit : mm

Shape	Square drive	Width across flats S_2		d_3 (Min.)	e_2 (Min.)	l_2 (Min.)	l_3	r_2	t_1
		Max.	Min.						
C and D	6,3	6,63	6,41	2,5	8,5	8,0	$4,0 \pm 0,2$	—	—
C (D)	10	9,80	9,58	5,0	12,9	11,5	$5,5 \pm 0,2$	—	—
	12,5	13,03	12,76	6,0	17,1	16,0	$8,0 \pm 0,3$	4	3,0
C and D	20	19,44	19,11	6,0	25,6	24,0	$10,2 \pm 0,3$	4	3,5
	25	25,79	25,46	6,5	34,4	29,0	$15,0 \pm 0,3$	6	4,0

Remarks 1 The shape without () is preferable.

2 Combination of B shape with C shape shall not be preferably used.

3 a) To be chamfered or rounded to meet r_1 of the projected square drive.

4 b) Groove or small diameter hole.

3.2 Shape and dimensions of sockets The shape of the sockets shall be preferably as given in Fig. 3. The dimensions shall be as given in Tables 4, 5, 6 and 7.