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(पहला पुनरीक्षण)

Tools for Pressing — Guide Bushes

Part 4 Form C, Gliding Bushes, Headed, Type 1
(*First Revision*)

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NATIONAL FOREWORD

This Indian Standard (Part 4) (First Revision) which is identical with ISO 9448-4 : 2013 'Tools for pressing — Guide bushes — Part 4: Form C, gliding bushes, headed, type 1' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Metal Forming Machines Sectional Committee and approval of the Production and General Engineering Division Council.

This standard was originally published in 2004 identical with ISO 9448-4 : 1991. The current revision of this standard has been undertaken to align with the latest version of International Standard.

This standard has been issued in several parts. Other parts are:

- Part 1 Forms
- Part 2 Form A, gliding bushes, plain, type 1
- Part 3 Form B, ball cage bushes, plain, type 1
- Part 5 Form D, ball cage bushes, headed, type 1
- Part 6 Form E, gliding bushes, flanged, type 1
- Part 7 Form F, ball cage bushes, flanged, type 1
- Part 8 Form G, gliding bushes, stepped, type 1
- Part 9 Form B, ball cage bushes, plain, type 2
- Part 10 Form E, gliding bushes, flanged, type 2
- Part 11 Form F, ball cage bushes, flanged, type 2

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

This standard also makes a reference to the BIS Certification Marking of the product. Details of which are given in National Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TOOLS FOR PRESSING — GUIDE BUSHES

PART 4 FORM C, GLIDING BUSHES, HEADED, TYPE 1

(First Revision)

1 Scope

This part of ISO 9448 specifies the main dimensions and tolerances, in millimetres, of guide bushes of form C, headed gliding bushes, type 1, intended for use in press tools and to be mounted in the clamp plate with transition fit and fixed to the plate by means of screws.

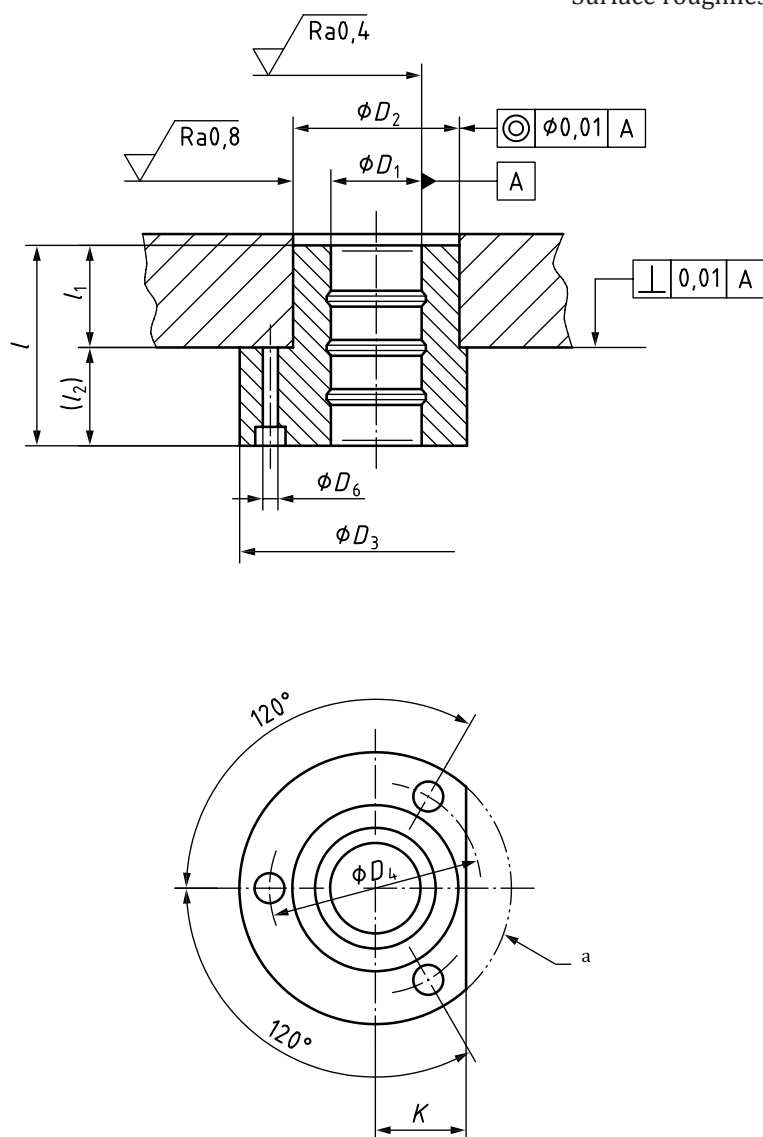
It gives guidance on the materials, and specifies the hardness and the designation of bushes in accordance with this part of ISO 9448.

2 Dimensions

The dimensions of type 1 headed gliding bushes (form C) shall conform to the indications of [Figure 1](#) and Table 1.

Details not stated, such as chamfers, radii and lubrication grooves, are left to the manufacturer's discretion.

Surface roughness values in micrometres



a Left to the manufacturer's discretion.

Figure 1 — Form C, headed gliding bushes, type 1

Table 1

D_1	nom.	16	20	25	32	40	50						
	tol.	G6				G5							
D_2 k5 ^a		28	32	40	48	58	70						
D_3		45	50	63	72	85	104						
D_4		35	40	50	58	70	86						
Clearance hole D_6		4,5	4,5	5,5	5,5	6,6	9						
For screw		M4	M4	M5	M5	M6	M8						
K		15	18	23	28	33	38						
	l_1												
nom.	tol.	l	(l_2)	l	(l_2)	l	(l_2)	l	(l_2)	l	(l_2)	l	(l_2)
25	-2,0 -2,5	31	6	40	15								
32		38	6	47	15	57	25						
40	-3 -4			55	15	65	25	65	25	70	30		
50								75	25	80	30	92	42
63												105	42
To prevent incorrect assembly of the upper and lower plates of the die set in relation to each other, the following values of D_1 are recommended: 15, 19, 24, 30, 38 and 48.													
^a Intended to fit into a hole having a tolerance of H7.													

3 Material

The material is left to the manufacturer's discretion and the hardness shall be 60^{+2}_0 HRC.

4 Designation

A guide bush in accordance with this part of ISO 9448 shall be designated by:

- "Guide bush";
- a reference to this part of ISO 9448, i.e ISO 9448-4;
- its form;
- its guiding diameter, D_1 , in millimetres;
- its length, l_1 , in millimetres.

EXAMPLE A guide bush of form C, headed gliding bush, type 1 of guiding diameter $D_1 = 16$ mm and of length $l_1 = 25$ mm is designated as follows:

Guide bush ISO 9448-4 C - 16 × 25

Bibliography

- [1] ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method*

NATIONAL ANNEX A

(National Foreword)

A-1 BIS CERTIFICATION MARKING

The product may also be marked with the Standard Mark.

A-1.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

Bureau of Indian Standards

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc No.: PGD 04 (1668).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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