INTERNATIONAL STANDARD

ISO 9448-2

Second edition
2013-12-15

Tools for pressing — Guide bushes —

Part 2: Form A, gliding bushes, plain, type 1

Outillage de presse — Bagues de guidage —

Partie 2: Forme A, bagues lisses pour guidage lisse, type 1

Reference number
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Contents

Page

Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO 9448-2 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

This second edition results from the reinstatement of ISO 9448-2:1991, which was withdrawn in 2006 and with which it is technically identical.

ISO 9448 consists of the following parts, under the general title *Tools for pressing — Guide bushes*:

— *Part 1: Forms*

— *Part 2: Form A, gliding bushes, plain, type 1*

— *Part 3: Form B, ball cage bushes, plain, type 1*

— *Part 4: Form C, gliding bushes, headed, 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*

Tools for pressing — Guide bushes —

Part 2:
Form A, gliding bushes, plain, type 1

1 Scope

This part of ISO 9448 specifies the main dimensions and tolerances, in millimetres, of guide bushes of form A, plain gliding bushes, type 1, intended for use in press tools and to be mounted in the clamp plate by means of interference fit.

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 plain gliding bushes (form A) 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

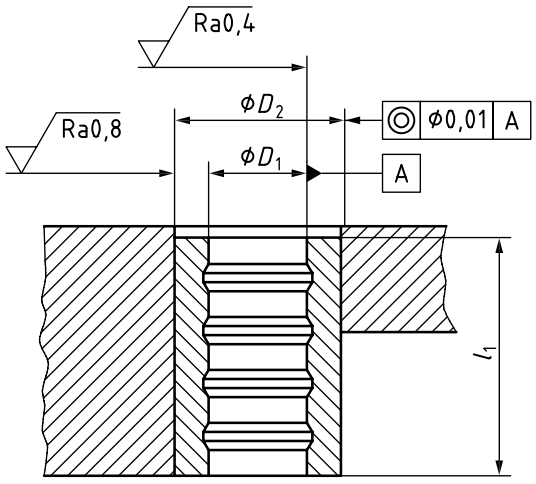

Figure 1 — Form A, plain gliding guide bushes, type 1

Table 1

l_1		D_1						
		G6				G5		
		12	16	20	25	32	40	50
		D_2 n6[a]						
nom.	tol.	22	28	32	40	48	58	70
25	–2,0 –2,5	×	×					
32		×	×	×				
40	–3 –4	×	×	×	×			
50		×	×	×	×	×		
63			×	×	×	×	×	
80				×	×	×	×	×
100	–3 –5					×	×	×
125							×	×
160								×
× standardized dimension								
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: 11, 15, 19, 24, 30, 38 and 48.								
[a] Intended to fit into a hole having a tolerance of H7. When the bushes are glued, tolerance j6 is permitted.								

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:

a) "Guide bush";

b) a reference to this part of ISO 9448, i.e ISO 9448-2;

c) its form;

d) its guiding diameter, D_1, in millimetres;

e) its length, l_1, in millimetres.

EXAMPLE A guide bush of form A, plain gliding bush, type 1 of guiding diameter D_1 = 12 mm and of length l_1 = 25 mm is designated as follows:

Guide bush ISO 9448-2 A - 12 × 25

Bibliography

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

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