# INTERNATIONAL STANDARD



First edition 1991-11-01

### Tools for pressing — Guide bushes —

### Part 2:

Form A, gliding bushes, plain, type 1

## iTeh STANDARD PREVIEW

### Qutillage de presse trelagues de guidage — Partie 2: Forme A, bagues lisses pour guidage lisse, type 1

<u>ISO 9448-2:1991</u> https://standards.iteh.ai/catalog/standards/sist/6be641dd-4a0a-4b94-a527-6079b39bc447/iso-9448-2-1991



Reference number ISO 9448-2:1991(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

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

#### ISO 9448-2:1991

ISO 9448 consists of the following/parts; diride rithe general title tools 4/0/d-4a0a-4b94-a527pressing — Guide bushes: 6079b39bc447/iso-9448-2-1991

- 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

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International Organization for Standardization

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Part 11: Form F, ball cage bushes, flanged, type 2
Annex A of this part of ISO 9448 is for information only.

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### Tools for pressing — Guide bushes —

### Part 2:

Form A, gliding bushes, plain, type 1

#### 1 Scope

2

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 ds. ib) a reference to this part of ISO 9448; hardness and the designation of bushes in accordance with this part of ISO 9448.

ISO 9448-2:1991 https://standards.itch.ai/catalog/standards/sist/b\_its\_guiding\_diameter,  $D_1$ , in millimetres; 6079b39bc447/iso-9448-2-1991 e) its length,  $l_1$ , in millimetres.

4

See figure 1 and table 1.

**Dimensions** 

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

### 3 Material and corresponding hardness

The material is left to the manufacturer's discretion and the hardness shall be 60  $^{+2}_{-0}$  HRC.

#### EXAMPLE

Designation

a) "Guide bush"; W

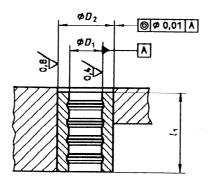
ISO 9448 shall be designated by

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:

A guide bush in accordance with this part of

Guide bush ISO 9448-2 A - 12  $\times$  25

Surface roughness values in micrometres





,					$D_1$			
<i>I</i> ,		G6				G5		
		12	16	20	25	32	40	50
		$\frac{1}{22} = \frac{1}{28} + \frac{1}{132} + \frac{1}{14} + \frac{1}{40} + \frac{1}{48} = \frac{1}{58} = \frac{1}{70}$						
nom.	tol.	22	<sup>28</sup> (sta	nd <sup>32</sup> rds	.iten.ai	48	58	70
25	-2,0 -2,5	Х	x	ISO 9448-				
32		Xttps://st			s/sist/6be641dd-	4a0a-4b94-a5	27-	
40	3 4	X	х	x	х			
50		х	x	x	X	Х		
63			х	х	Х	X	x	
80				x	x	Х	X	x
100	-3 -5					Х	×	x
125							х	x
160								x

NOTES

1 X, standardized dimension.

2 To prevent an 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.

1) Intended to fit in a hole having a tolerance H7. When the bushes are glued, the tolerance j6 is permitted.

### Annex A

(informative)

### **Bibliography**

- [1] ISO 6508:1986, Metallic materials Hardness test Rockwell test (scales A B C D E F G H K).
- [2] ISO 9448-1:1991, Tools for pressing Guide bushes Part 1: Forms.

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Descriptors: presses, tools, components, bushings, guide bushings, dimensions, designation.

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