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**Centre drills for centre holes with  
protecting chamfer — Type B**

*Forets à centrer pour centres avec chanfrein de protection — Type B*

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# Contents

	Page
Foreword .....	iv
Introduction .....	v
<b>1 Scope</b> .....	<b>1</b>
<b>2 Designation</b> .....	<b>1</b>
<b>3 Dimensions</b> .....	<b>1</b>
<b>Annex A (normative) Dimensions for centre hole — Type B and choice of dimensioning method</b> ...	<b>3</b>
<b>Annex B (informative) Relationship between designations in this International Standard and ISO 13399 (all parts)</b> .....	<b>5</b>
<b>Bibliography</b> .....	<b>6</b>

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## 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.

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 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 2, *Holding tools, adaptive items and interfaces*.

This second edition cancels and replaces the first edition (ISO 2540:1973), of which it constitutes a minor revision, notably with the addition of [Annex B](#), which gives the relationship between the designations of this International Standard and the ISO 13399 series.

## Introduction

This International Standard relates to centre drills and deals only with centre drills for centre holes with protecting chamfer — Type B. It is a continuation of ISO 866 and precedes ISO 2541.

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# Centre drills for centre holes with protecting chamfer — Type B

## 1 Scope

This International Standard specifies the dimensions of centre drills for centre holes with protecting chamfer — Type B.

It covers only metric dimensions, regarded as the only recommended dimensions in the future for this type of drills.

The flutes can be straight or spiral at the option of manufacturer.

Unless otherwise stated, these drills are right-hand cutting.

[Annex A](#) gives the recommended dimensions for the centre holes, Type B, which can be obtained by a rational use of the centre drills listed in this International Standard.

## 2 Designation

Centre drills shall be designated by the type (Type B in this case), the pilot diameter,  $d$  (first column of [Table 1](#)) and the shank diameter  $d_1$  (second column of [Table 1](#)).

EXAMPLE B 2,5/10.

## 3 Dimensions

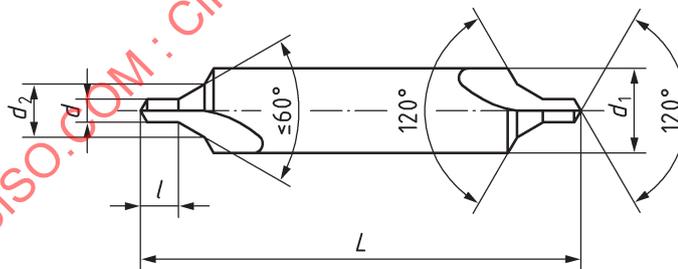


Figure 1 — Centre drill — Type B

Table 1

Dimensions in millimetres

$d^a$	$d_1$	$d_2$	$l$		$L$	
			max.	min.	max.	min.
1,0	4,0	2,12	1,9	1,3	37,5	33,5
(1,25)	5,0	2,65	2,2	1,6	42	38
1,6	6,3	3,35	2,8	2,0	47	43
2,0	8,0	4,25	3,3	2,5	52	48
2,5	10,0	5,30	4,1	3,1	59	53
3,15	11,2	6,70	4,9	3,9	63	57
4,0	14,0	8,50	6,2	5,0	70	64
(5,0)	18,0	10,60	7,5	6,3	78	72
6,3	20,0	13,20	9,2	8,0	83	77
(8,0)	25,0	17,00	11,5	10,1	103	97
10,0	31,5	21,20	14,2	12,8	128	122

<sup>a</sup> Sizes in brackets should be avoided whenever possible.

## Annex A (normative)

### Dimensions for centre hole — Type B and choice of dimensioning method

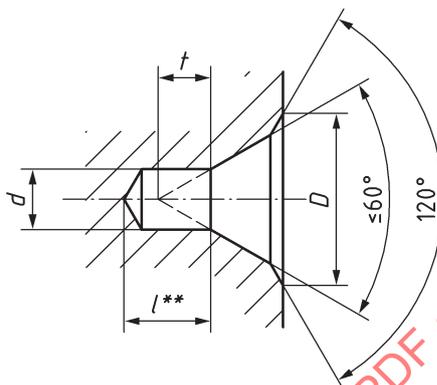


Figure A.1 — Method 1

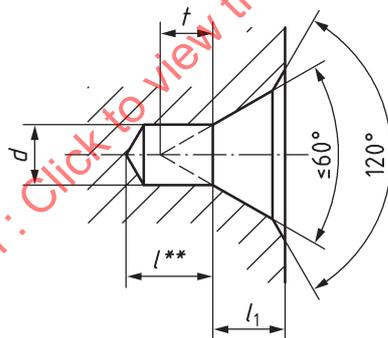


Figure A.2 — Method 2

The two methods of dimensioning are practically equivalent. One or the other of these methods may be used.

Table A.1

Dimensions in millimetres

$d^a$ nominal	Method 1	Method 2	$t$ ref.
	$D$ nominal	$l_1$ nominal	
1,0	3,15	1,27	0,9
(1,25)	4	1,60	1,1
1,6	5	1,99	1,4
2,0	6,3	2,54	1,8
2,5	8	3,20	2,2
3,15	10	4,03	2,8
4,0	12,5	5,05	3,5
(5,0)	16	6,41	4,4
6,3	18	7,36	5,5
(8,0)	22,4	9,35	7,0
10,0	28	11,66	8,7

<sup>a</sup> Sizes in brackets should be avoided whenever possible.

Dimensions depend on the length of the centre drill. It should not, even in the case of frilling with re-sharpened centre drills, be less than the reference value given in [Table A.1](#).

## Annex B (informative)

### Relationship between designations in this International Standard and ISO 13399 (all parts)

For relationship between designations in this International Standard and preferred symbols according to ISO 13399 (all parts), see [Table B.1](#).

**Table B.1 — Relationship between designations in this International Standard  
and ISO 13399 (all parts)**

Symbol in ISO 2540	Reference in ISO 2540	Property name in ISO 13399 (all parts)	Symbol in ISO 13399 (all parts)	Reference in ISO 13399 (all parts)
$d$	<a href="#">Figure 1</a> <a href="#">Table 1</a>	cutting diameter	DC	71D084653E57F
$d_1$	<a href="#">Figure 1</a> <a href="#">Table 1</a>	connection diameter machine side	DCONMS	71EBDBF5060E6
$d_1 h9$	<a href="#">Table 1</a>	tolerance class connection diameter machine side	TCDCONMS	72719B2BD8041
$L$	<a href="#">Figure 1</a> <a href="#">Table 1</a>	overall length	OAL	71D078EB7C086
60° max	<a href="#">Figure 1</a>	countersink angle	SIGCSK	726E2FCD1A3C4
120° at dimension $d_1$	<a href="#">Figure 1</a>	step included angle	STA	71DF151D6E547
120° at dimension $d$	<a href="#">Figure 1</a>	point angle	SIG	71DCCC4FEF366