



BSI Standards Publication

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

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## National foreword

This British Standard is the UK implementation of ISO 2540:2016.

The UK participation in its preparation was entrusted to Technical Committee MTE/18, Tools tips and inserts for cutting applications.

A list of organizations represented on this committee can be obtained on request to its secretary.

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© The British Standards Institution 2016  
Published by BSI Standards Limited 2016

ISBN 978 0 580 83627 5

ICS 25.100.30

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2016.

### Amendments/corrigenda issued since publication

Date	Text affected
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INTERNATIONAL  
STANDARD

**ISO**  
**2540**

Second edition  
2016-11-01

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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*



Reference number  
ISO 2540:2016(E)



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## Foreword

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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.





# 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

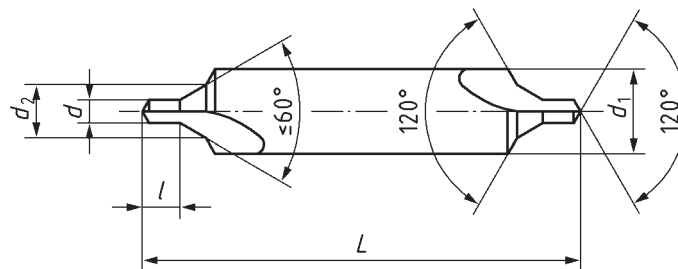


Figure 1 — Centre drill — Type B

**Table 1**

Dimensions in millimetres

<i>d</i> <sup>a</sup>	<i>d</i> <sub>1</sub>	<i>d</i> <sub>2</sub>	<i>l</i>		<i>L</i>	
			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

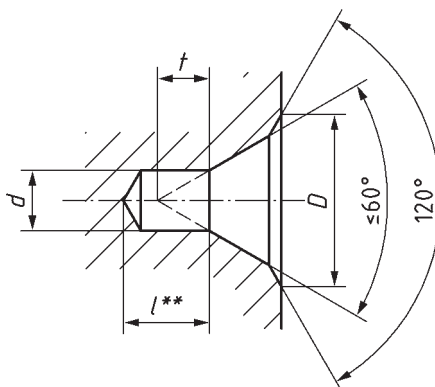


Figure A.1 — Method 1

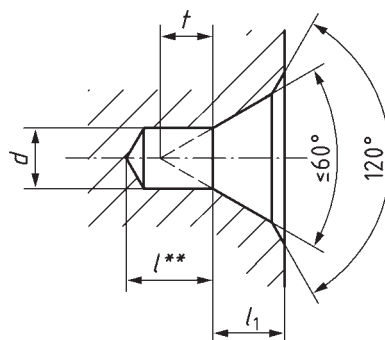


Figure A.2 — Method 2

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

## Bibliography

- [1] ISO 866, *Centre drills for centre holes without protecting chamfers — Type A*
- [2] ISO 2541, *Centre drills for centre holes with radius form — Type R*
- [3] ISO 13399 (all parts), *Cutting tool data representation and exchange*



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