INTERNATIONAL STANDARD 866

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Centre drills for centre holes without protecting chamfers — Type A

Forets à centrer pour centres sans chanfrein de protection — Type A

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 29 has reviewed ISO Recommendation R 866 and found it technically suitable for transformation. International Standard ISO 866 therefore replaces ISO Recommendation R 866-1968 to which it is technically identical.

ISO Recommendation R 866 was approved by the Member Bodies of the following countries :

Austria	India	Portugal
Belgium	Israel	South Africa, Rep. of
Canada	Italy	Spain
Chile	Japan	Sweden
Czechoslovakia	Korea, Rep. of	Switzerland
Egypt, Arab Rep. of	Netherlands	Turkey
France	New Zealand	U.S.S.R.
Hungary	Poland	

The Member Bodies of the following countries expressed disapproval of the Recommendation on technical grounds :

Ireland
United Kingdom*
Yugoslavia

The Member Bodies of the following countries disapproved the transformation of ISO/R 866 into an International Standard :

Hungary
Poland
Sweden

* Subsequently, this Member Body approved the Recommendation.

Printed in Switzerland

Centre drills for centre holes without protecting chamfers — Type A

0 INTRODUCTION

This International Standard, relating to centre drills, deals only with centre drills for centre holes without protecting chamfers — Type A. The other types are dealt with in ISO 2540, *Centre drills for centre holes with protecting chamfer — Type B*, and ISO 2541, *Centre drills for centre holes with radius form — Type R*.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions of centre drills for centre holes without protecting chamfers — Type A.

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

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

Unless otherwise indicated, these drills will be right-hand cutting.

This International Standard includes an annex giving the recommended dimensions for the Type A centre holes, 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 (in this case, Type A), the pilot diameter d (first column of table 1) and the shank diameter d_1 (second column of table 1).

Examples : A 0,63/3,15

A 2/5

3 DIMENSIONS

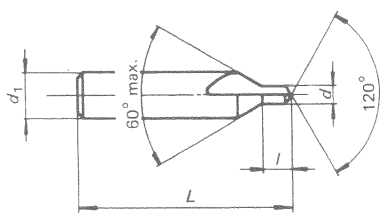

FIGURE 1 — **Single-ended centre drill — Type A** ($d \leqslant 0{,}8$ mm)

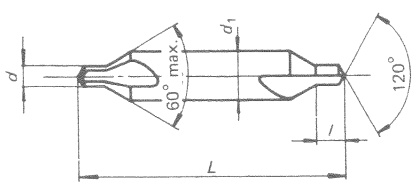

FIGURE 2 — **Double-ended centre drill — Type A** ($d \geqslant 1$ mm)

TABLE 1

Dimensions in millimetres

d*	d_1	L		l	
k12	h9	max.	min.	max.	min.
(0,5)	3,15	21	19	1,0	0,8
(0,63)	3,15	21	19	1,2	0,9
(0,8)	3,15	21	19	1,5	1,1
1,0	3,15	33,5	29,5	1,9	1,3
(1,25)	3,15	33,5	29,5	2,2	1,6
1,6	4,0	37,5	33,5	2,8	2,0
2,0	5,0	42	38	3,3	2,5
2,5	6,3	47	43	4,1	3,1
3,15	8,0	52	48	4,9	3,9
4,0	10,0	59	53	6,2	5,0
(5,0)	12,5	66	60	7,5	6,3
6,3	16,0	74	68	9,2	8,0
(8,0)	20,0	83	77	11,5	10,1
10,0	25,0	103	97	14,2	12,8

* Sizes in brackets should be avoided whenever possible.

ANNEX

DIMENSIONS FOR TYPE A CENTRE HOLES AND CHOICE OF THE DIMENSIONING METHOD

The two methods of dimensioning are practically equivalent. Member Bodies will choose one or the other for inclusion in their national standards.

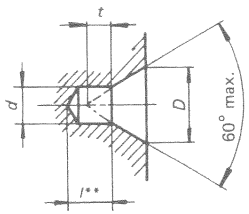

FIGURE 3 — **Method 1**

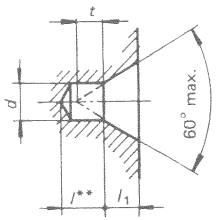

FIGURE 4 — **Method 2**

TABLE 2

Dimensions in millimetres

d*	Method 1	Method 2	t
	D	l_1	
nominal	nominal	nominal	reference value
(0,5)	1,06	0,48	0,5
(0,63)	1,32	0,60	0,6
(0,8)	1,70	0,78	0,7
1,0	2,12	0,97	0,9
(1,25)	2,65	1,21	1,1
1,6	3,35	1,52	1,4
2,0	4,25	1,95	1,8
2,5	5,30	2,42	2,2
3,15	6,70	3,07	2,8
4,0	8,50	3,90	3,5
(5,0)	10,60	4,85	4,4
6,3	13,20	5,98	5,5
(8,0)	17,00	7,79	7,0
10,0	21,20	9,70	8,7

* Sizes in brackets should be avoided whenever possible.

** Dimension l depends on the length l of the centre drill. It should not, even in the case of drilling with re-sharpened centre drills, be less than the reference value t given in table 2.