INTERNATIONAL STANDARD ISO 2296

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

Metal slitting saws with fine and coarse teeth — Metric series

First edition — 1972-07-01

UDC 621.934

Ref. No. ISO 2296-1972 (E)

Descriptors : saws, slitting saws, teeth, dimensions.

Price based on 3 pages

FOREWORD

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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.

International Standard ISO 2296 was drawn up by Technical Committee ISO/TC 29, *Small tools.*

It was approved in August 1971 by the Member Bodies of the following countries:

Austria	India	South Africa, Rep. of
Belgium	Israel	Spain
Czechoslovakia	Italy	Switzerland
Egypt, Arab Rep. of	Japan	Thailand
France	Korea, Rep. of	Turkey
Germany	Poland	United Kingdom
Hungary	Romania	

The Member Body of the following country expressed disapproval of the document on technical grounds:

Sweden

Printed in Switzerland

Metal slitting saws with fine and coarse teeth — Metric series

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the mechanical characteristics of metal slitting saws, metric series. It concerns the following two types :

- Metal slitting saws with fine teeth (see Table 1)
- Metal slitting saws with coarse teeth (see Table 2)

The ratio between the number of teeth for saws with coarse teeth and the number of teeth for saws with fine teeth is 0.5, and specific values have been related to saw diameters and thicknesses.

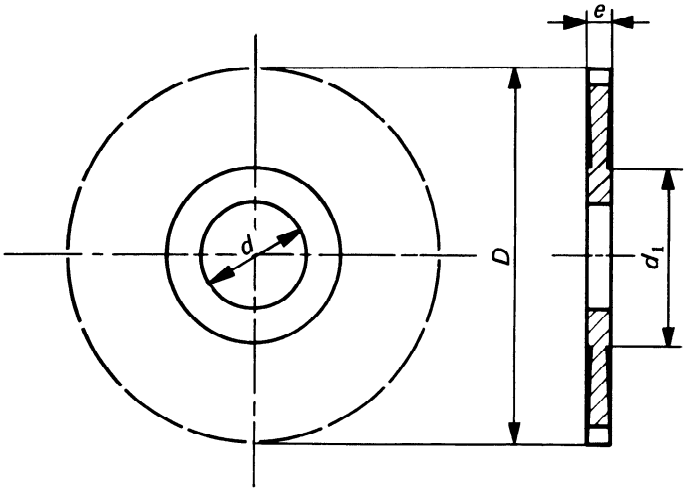
If there is a need to extend the range or introduce other series of teeth, it is recommended that such additions be in accordance with the data given in the graph in the Annex.

2 REFERENCES

ISO/R 240, *Interchangeability dimensions for milling cutters and cutter arbors or cutter mandrels — Metric series and inch series.*

ISO . . ., *Metal circular saws.* (In preparation.)

3 DIMENSIONS AND NUMBER OF TEETH



3.1 Metal slitting saws with fine teeth

TABLE 1

Values in millimetres

D j_s 16			20	25	32	40	50	63	80	100	125	160	200	250	315
d H7			5	8		10	13	16	22			32			40
d_1 min.			Without hub						34			47	63		80
e j_s 11		Pitch	Number of teeth												
0.2	± 0.030	0.8	80	80	100	128									
0.25															
0.3		1.0	64		80	100	128	128							
0.4				64											
0.5							100								
0.6		1.25	48		64	80			128	160					
0.8				48			80	100			160				
1.0										128					
1.2		1.6	40		48	64			100		128	160			
1.6				40			64	80		100			160	200	
2.0		2.0	32						80		100	128			200
2.5					40	48		64		80			128	160	
3.0							48		64		80	100			
4.0	±0.037	2.5				40		48		64			100		160
5.0									48		64	80			
6.0															
				3.2			4.0			5.0			6.3		

3.2 Metal slitting saws with coarse teeth

TABLE 2

Values in millimetres

D js 16			32	40	50	63	80	100	125	160	200	250	315
d H7			8	10	13	16	22			32			40
d_1 min.			Without hub				34			47	63		80
e js 11		Pitch	Number of teeth										
0.3	± 0.030	2.5	40	48	64	64							
0.4					48								
0.5				40									
0.6		3.2	32			48	64						
0.8					40			64	80				
1.0				32			48			80			
1.2		4.0	24		32	40		48	64		80		
1.6				24			40			64		100	
2.0			20			32		40	48		64		100
2.5		5.0		20	24		32			48		80	
3.0						24		32	40		48	64	80
4.0	± 0.037												
5.0									32	40		64	
6.0											48		
			6.3		8.0		10.0			12.5			

NOTES

1 **Side relief:** Metal slitting saws may have side relief up to the bore or up to a hub of diameter d_1, at the option of the manufacturer.

2 **Keying:** Metal slitting saws are generally supplied without keyways. The execution of the keyway, by agreement between the user and the manufacturer, shall be in accordance with the dimensions given in ISO/R 240.

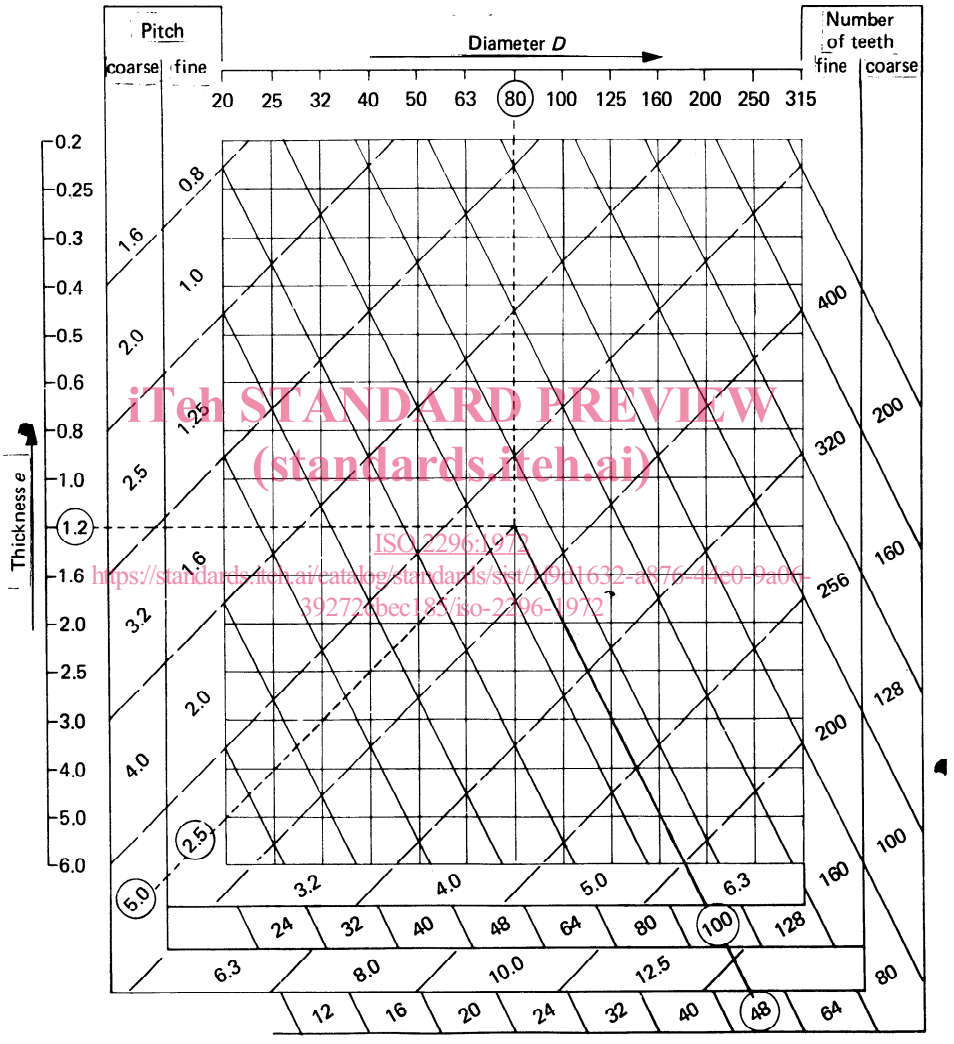
3 **Metal slitting saws with pin hole drive:** By agreement between the user and the manufacturer, metal slitting saws of diameters $D = 200$, 250 and 315 mm may be supplied with pin hole drives. The number of these holes, their drilling diameters and their pitch circle diameters, shall conform to the data given in ISO . . ..

4 **Tooth pitch:** The tooth pitch in relation to the number of teeth of a metal slitting saw of a given diameter is expressed as an approximate rounded figure.

ANNEX

METAL SLITTING SAWS WITH FINE OR COARSE TEETH

A.1 GRAPH FOR USE IN DETERMINING THE NUMBER OR PITCH OF THE TEETH IN ACCORDANCE WITH THE DIAMETER AND THICKNESS OF THE METAL SLITTING SAW



A.2 USE OF THE GRAPH

Example : Determination of the number or pitch of the teeth of a metal slitting saw with an outside diameter $D = 80$ mm and thickness $e = 1.2$ mm.

At the intersection on the graph of the 80 and 1.2 lines, the oblique dotted line determines the pitch of the teeth: 2.5 mm for fine teeth and 5 mm for coarse teeth. From the same intersection, the oblique full line determines the number of teeth: 100 for fine toothing and 48 for coarse toothing.

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