



SLOVENSKI STANDARD
SIST ISO 2490:2008

01-julij-2008

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SIST ISO 2490:2002

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Solid (monobloc) gear hobs with tenon drive or axial keyway, 0,5 to 40 module -
Nominal dimensions

Blockwälzfräser für Stirnräder mit Quer- oder Längsnut - Modul 0,5 bis 40 -
Nennabmessungen

Fraises-mères monoblocs à entraînement par tenon ou par clavette, de modules 0,5 à
40 - Dimensions nominales

Ta slovenski standard je istoveten z: **ISO 2490:2007**

ICS:

21.200 Gonila Gears

SIST ISO 2490:2008 en,fr

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**Solid (monobloc) gear hobs with tenon
drive or axial keyway, 0,5 to 40 module —
Nominal dimensions**

*Fraises-mères monoblocs à entraînement par tenon ou par clavette, de
modules 0,5 à 40 — Dimensions nominales*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 2490 was prepared by Technical Committee ISO/TC 60, *Gears*, Subcommittee SC 1, *Nomenclature and wormgearing*.

This third edition cancels and replaces the second edition (ISO 2490:1996), of which Tables 1 and 2, Figure 1 and Annex A have been technically revised.

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Solid (monobloc) gear hobs with tenon drive or axial keyway, 0,5 to 40 module — Nominal dimensions

1 Scope

This International Standard specifies the nominal dimensions of general-purpose single-start solid (monobloc) gear hobs with axial keyway or tenon drive of 0,5 to 40 module.

These hobs are intended for the production of gears which conform to ISO 54 and present a 20° pressure angle in conformity with ISO 53.

NOTE Solid hobs are those made from one solid piece of material, as opposed to hobs which have inserted blades.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 53:1998, *Cylindrical gears for general and heavy engineering — Standard basic rack tooth profile*

ISO 54:1996, *Cylindrical gears for general engineering and for heavy engineering — Modules*

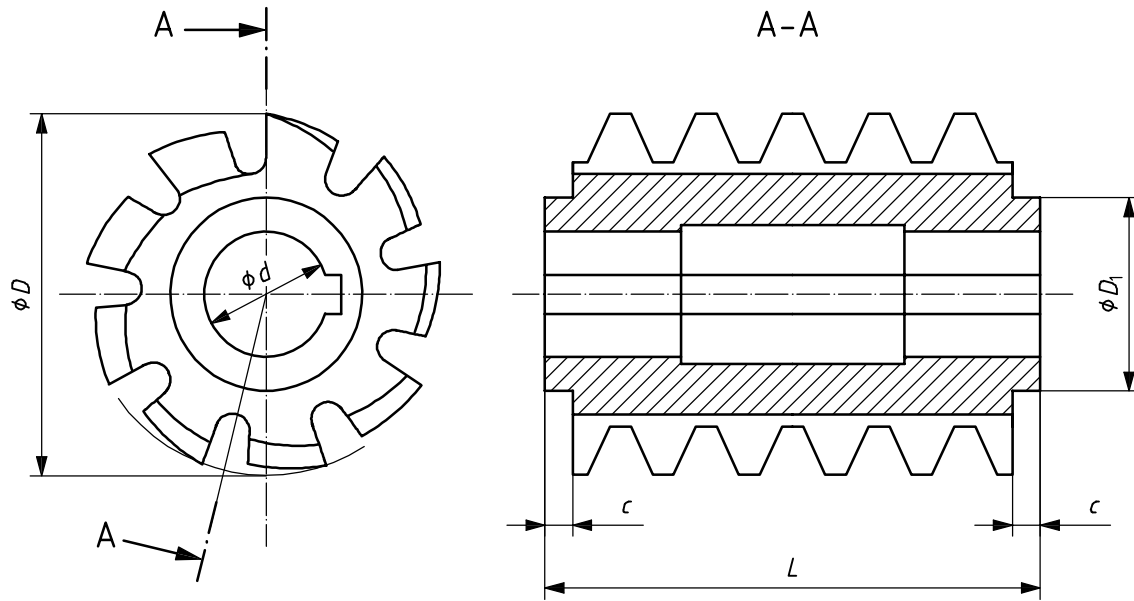
ISO 240:1994, *Milling cutters — Interchangeability dimensions for cutter arbors or cutter mandrels*

ISO 2768-1:1989, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

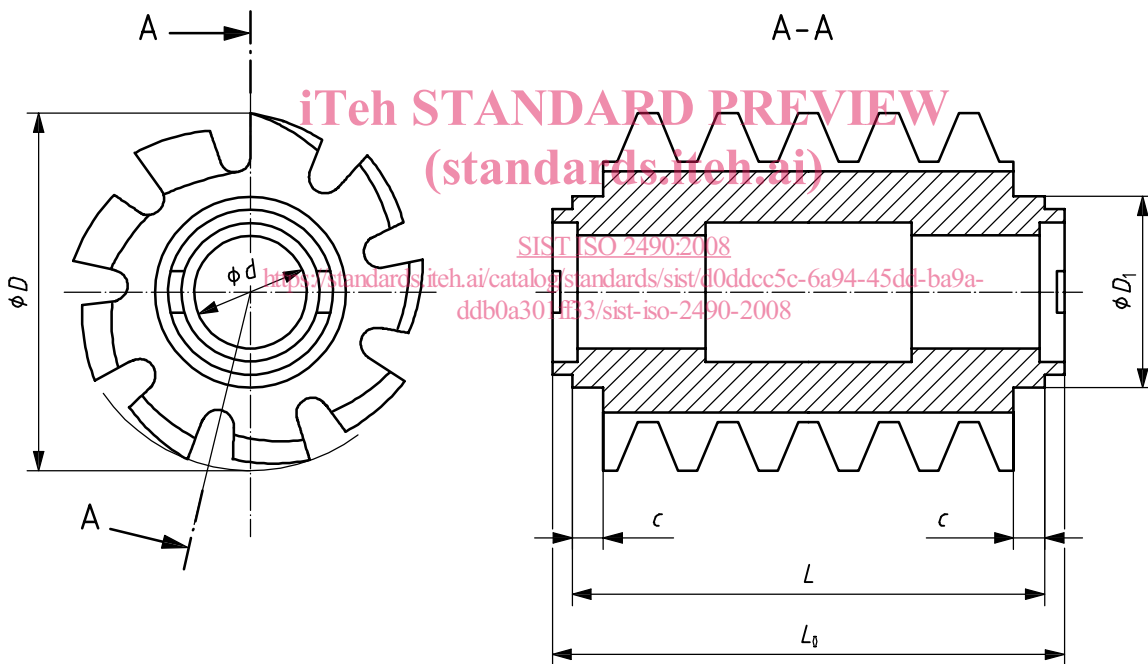
ISO 2780:1986, *Milling cutters with tenon drive — Interchangeability dimensions with cutter arbors — Metric series*

3 Nominal dimensions

The nominal dimensions shall be as shown in Figure 1 and given in Tables 1 and 2.



a) Hob with axial keyway



b) Hob with tenon drive

Key

- ϕD_1 hub diameter (mm)
- ϕD outside diameter (mm)
- ϕd bore diameter (mm)
- L overall length of hob with axial keyway (mm)
- L_0 overall length of hob with tenon drive (mm)
- c minimum hub length (mm)

NOTE Keyway dimensions are specified in ISO 240 and tenonway dimensions are specified in ISO 2780.

Figure 1 — Gear hob dimensions

Table 1 — Nominal dimensions of small-bore-type single-thread gear hobs

Type ^b	Module, m		Hub diameter D_1 mm	Outside diameter D^a mm	Bore diameter d^b mm	Reference			
	Series					Overall length L^a mm	Overall length L_0^a mm	Minimum hub length c mm	Typical number of gashes
	I	II							
1	0,5	—	Diameter at manufacturer's discretion	24	8	10	—	1	12
	—	0,55		24	8	10	—	1	12
	0,6	—		24	8	10	—	1	12
	—	0,7		24	8	10	—	1	12
	—	0,75		24	8	12	—	1	12
	0,8	—		24	8	12	—	1	12
	—	0,9		24	8	12	—	1	12
	1,0	—		24	8	12	—	1	12
2	0,5	—		32	10	20	30	2	12
	—	0,55		32	10	20	30	2	12
	0,6	—		32	10	20	30	2	12
	—	0,7		32	10	20	30	2	12
	—	0,75		32	10	20	30	2	12
	0,8	—		32	10	20	30	2	12
	—	0,9		32	10	20	30	2	12
	1,0	—		32	10	20	30	2	12
	—	1,125		32	10	20	30	2	12
	1,25	—		40	10	25	35	2	10
	—	1,375		40	10	25	35	2	10
	1,50	—		40	10	25	35	2	10
	—	1,75		40	10	30	40	2	10
	2,0	—		40	10	30	40	2	10
3	0,5	—		32	13	20	30	2	12
	—	0,55		32	13	20	30	2	12
	0,6	—		32	13	20	30	2	12
	—	0,7		32	13	20	30	2	12
	—	0,75		32	13	20	30	2	12
	0,8	—		32	13	20	30	2	12
	—	0,9	32	13	20	30	2	12	
	1,0	—	32	13	20	30	2	12	
	—	1,125	32	13	20	30	2	12	
	1,25	—	40	13	25	35	2	10	
	—	1,375	40	13	25	35	2	10	
	1,5	—	40	13	25	35	2	10	
	—	1,75	40	13	30	40	2	10	
	2,0	—	40	13	30	40	2	10	

^a Tolerances of outside diameter, D , L and L_0 shall be the "coarse" class as given in ISO 2768-1.

^b The type is the segmentation based on the bore diameters.