INTERNATIONAL STANDARD 1641/III

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

End mills and slot drills — Part III : Milling cutters with 7/24 taper shanks

Fraises cylindriques 2 tailles et fraises à rainurer — Partie III : Fraises à queue cône 7/24

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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.

International Standard ISO 1641/III was developed by Technical Committee ISO/TC 29, *Small tools*, and was circulated to the member bodies in June 1977.

It has been approved by the member bodies of the following countries :

Australia	India	Spain
Austria	Israel	Sweden
Belgium	Italy	Switzerland
Brazil	Japan	Turkey
Chile	Korea, Rep. of	United Kingdom
France	Mexico	U.S.S.R.
Germany	Romania	Yugoslavia
Hungary	South Africa, Rep. of	

The member body of the following country expressed disapproval of the document on technical grounds :

Czechoslovakia

This International Standard cancels and replaces ISO 2324-1972, of which it constitutes a technical revision.

Printed in Switzerland

End mills and slot drills — Part III : Milling cutters with 7/24 taper shanks

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the general dimensions of the following milling cutters with 7/24 taper shanks:

- End mills, flat-ended or ball-nosed — Standard series and long series.
- Slot drills — Short series and standard series.

Characteristics of 7/24 taper shanks are in accordance with ISO 297 and ISO 2583.

These same milling cutters with parallel shanks are dealt with in part I; those with Morse taper shank having a tapped hole, in part II.

2 REFERENCES

ISO 297, *7/24 tapers for tool shanks.*

ISO 523, *Milling cutters — Recommended range of outside diameters.*

ISO 2583, *Tool shanks and equipment with 7/24 tapers — Collar dimensions.*

ISO 3855, *Milling cutters — Nomenclature.*

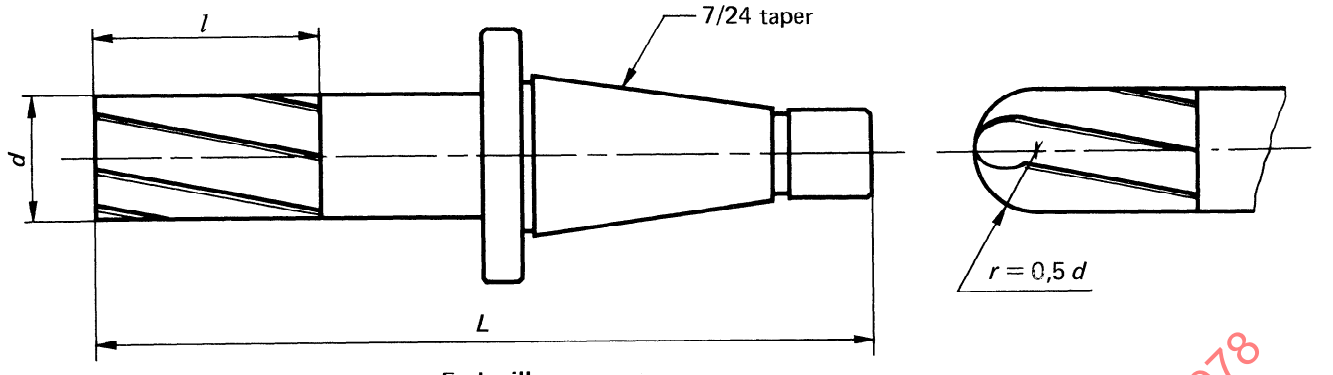
3 DIMENSIONS

Hemispherical-ended mills and flat-ended end mills

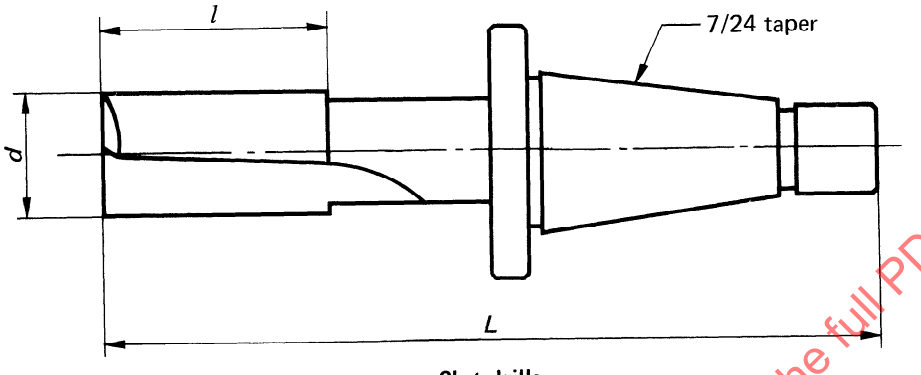
Two series : standard and long according to the cutting length l.

Slot drills

Two series : short and standard according to the cutting length l.



End mills



Slot drills

Designation : Milling cutters are designated by their type and their diameter *d*.

Tolerances on cutting diameters *d* :

End mills : j_s14

Slot drills : e8

Dimensions in millimetres.

Ranges of diameters d		Recommended diameters d		Length l			Length L[1]			7/24 taper No.
over	up to (including)			Short series	Standard series	Long series	Short series	Standard series	Long series	
23,6	30	**25**	**28**	26	45	90	131	150	195	**30**
30	37,5	**32**	**36**	32	53	106	137	158	211	
							167	188	241	**40**
							187	208	261	**45**
37,5	47,5	**40**	**45**	38	63	125	173	198	260	**40**
							193	218	280	**45**
							215	240	302	**50**
47,5	60	**50**	**56**	45	75	150	180	210	285	**40**
							200	230	305	**45**
							222	252	327	**50**
60	75	**63**	**71**	53	90	180	208	245	335	**45**
							230	267	357	**50**
75	95	**80**	—	63	106	212	240	283	389	

1) The values L and l have been so chosen that the length difference $(L - l)$ remains constant whatever the series, short, standard or long.

7/24 taper No.	30	40	45	50
$L - l$	105	135	155	177

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