International Standard 5414/2

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Tool chucks (end mill holders) with clamp screws for flatted parallel shank tools — Part 2 : Connecting dimensions of chucks

Mandrins porte-outils, à vis de blocage, pour outils à queue cylindrique à méplat — Partie 2 : Dimensions d'encombrement des mandrins

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Descriptors : tools, chucks, tool holders, shanks, parallel shanks, dimensions, connecting dimensions.

Price based on 4 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.

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International Standard ISO 5414/2 was developed by Technical Committee ISO/TC 29, *Small tools*, and was circulated to the member bodies in November 1980.

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

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No member body expressed disapproval of the document.

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Tools chucks (end mill holders) with clamp screws for flatted parallel shank tools — Part 2 : Connecting dimensions of chucks

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1 Scope and field of application

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This part of ISO 5414 defines the dimensions of tool chucks (end mill holders) with clamp screws as concerns connection part of these chucks.

Two types of connection are defined :

— chucks with 7/24 taper shanks for tool shanks with either single flat or a double flat;

— chucks with Morse taper shanks for tool shanks with a single flat only.

The dimensions of the driving system of the tool shanks are dealt with in ISO 5414/1.

Morse tapers shall conform with ISO 296 and ISO 5413 and 7/24 tapers shall conform with ISO 297 and ISO 2583.

Flatted parallel shanks installed in these chucks shall conform to ISO 3338/2.

2 References

ISO 296, *Machine tools — Self-holding tapers for tool shanks.*

ISO 297, *7/24 tapers for tool shanks.* [1)]

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

ISO 3338/2, *Parallel shanks for milling cutters — Part 2 : Dimensional characteristics of flatted parallel shanks.*

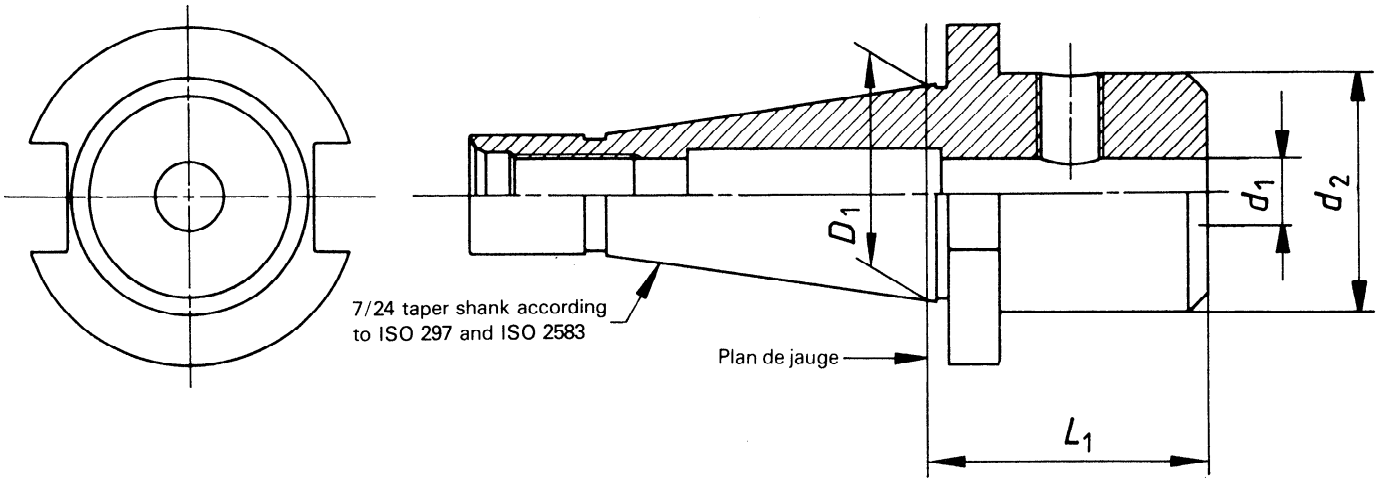
ISO 5413, *Machine tools — Positive drive of Morse tapers.*

ISO 5414/1, *Tool chucks (end mill holders) with clamp screws for flatted parallel shank tools — Part 1 : Dimensions of the driving system of the tool shanks.*

1) At present at the stage of draft. (Revision of ISO/R 297-1963 and addenda 1, 2 and 3.)

3 Chucks with 7/24 taper shanks

3.1 Chucks for tool shanks with single flat



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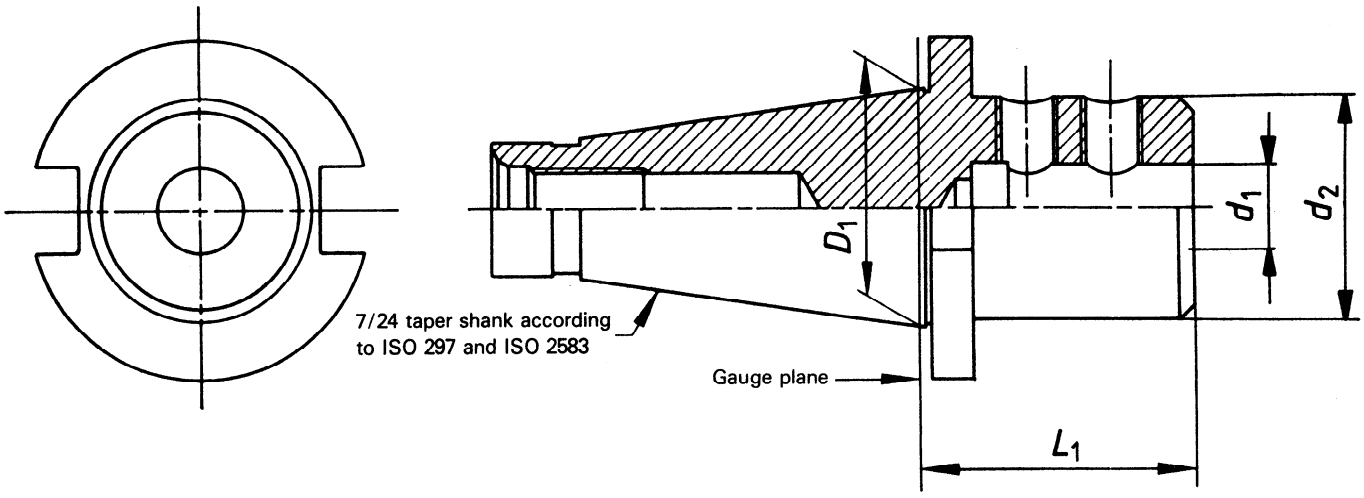
Dimensions in millimetres

7/24 taper shank No.	D_1	d_1 H5	d_2 0 / − 1	L_1[1]
30	31,750	6	25	40
		8	28	
		10	35	
		12	42	
		16	48	50
		20	52	63
40	44,450	6	25	50
		8	28	
		10	35	
		12	42	
		16	48	63
		20	52	
45	57,150	6	25	50
		8	28	
		10	35	
		12	42	
		16	48	63
		20	52	
50	69,850	6	25	63
		8	28	
		10	35	
		12	42	
		16	48	
		20	52	

1) For some special devices for tool holders, other lengths, L_1, can be determined.

3.2 Chucks for tool shanks with double flat



NOTE — The drilling in the 7/24 taper shank may pass through the chuck.

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Dimensions in millimetres

7/24 taper shank No.	D_1	d_1 H5	d_2		L_1[1]
40	44,450	25	65	0 − 1	80
		32	72		80
45	57,150	25	65	0 − 1	80
		32	72		80
		40	90	max.	90
		50	100		100
50	69,850	25	65	0 − 1	80
		32	72		80
		40	90	max.	90
		50	100		100
		63	130		115

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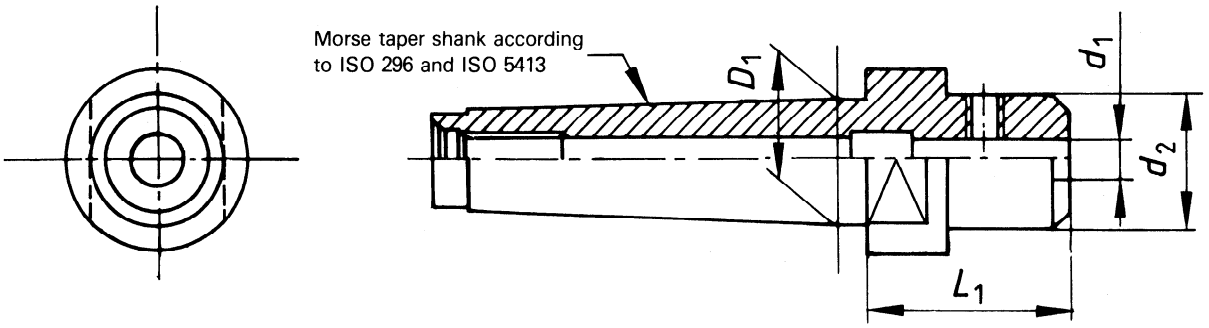
1) For some special devices for tool holders, other lengths, L_1, can be determined.

4 Chucks with Morse taper shanks for tool shanks with single flat



NOTE — With the exception of chuck with Morse taper shank No. 2, these chucks have Morse taper shanks with positive drive.

Dimensions in millimetres

Morse taper No.	D_1	d_1 H5	d_2 $^{0}_{-1}$	L_1 [1]
2	17,780	10	35	50
3	23,825	10	35	45
		12	42	50
		16	48	71
4	31,267	10	35	50
		12	42	56
		16	48	56
		20	52	71
5	44,399	10	35	56
		12	42	63
		16	48	63
		20	52	63

1) For some special devices for tool holders, other lengths, L_1, can be determined.

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