
**Machine tools — Connecting dimensions
of spindle noses and work holding
chucks —**

**Part 4:
Cylindrical connection**

*Machines-outils — Dimensions d'assemblage de nez de broches et
mandrins porte-pièces —*

Partie 4: Assemblage cylindrique



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Foreword

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ISO 702-4 was prepared by Technical Committee ISO/TC 39, *Machine tools*, Subcommittee SC 8, *Work holding spindles and chucks*.

ISO 702 consists of the following parts, under the general title *Machine tools — Connecting dimensions of spindle noses and work holding chucks*:

- *Part 1: Conical connection*
- *Part 2: Camlock type*
- *Part 3: Bayonet type*
- *Part 4: Cylindrical connection*

Machine tools — Connecting dimensions of spindle noses and work holding chucks —

Part 4: Cylindrical connection

1 Scope

This part of ISO 702 specifies the sizes for interchangeability of cylindrical spindle noses and corresponding connecting faces of face plates or work holding chucks.

NOTE The conical connection, “Camlock” and “bayonet” types are dealt with ISO 702-1, ISO 702-2 and ISO 702-3, respectively.

2 Sizes for interchangeability

2.1 Spindle nose

Only one bolt circle of diameter d_2 is considered in this part of ISO 702, with 6 holes for No. 3 and 12 holes for Nos. 4 to 28.

The dimensions are shown in Figure 1 and given in Table 1.

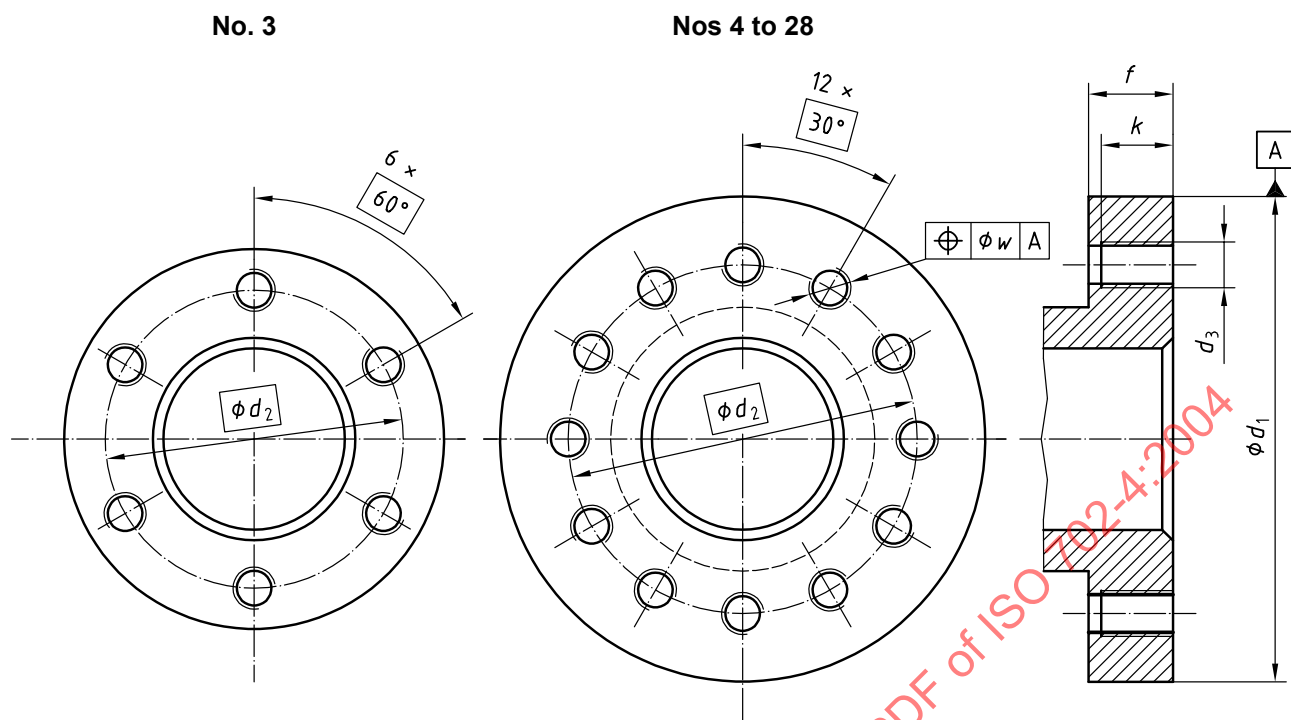


Figure 1 — Spindle nose

Table 1 — Dimensions of spindle nose

Dimensions in millimetres

Dimension		Size No.								
		3	4	5	6	8	11	15	20	28
d_1	nom.	90	115	140	170	220	300	380	520	720
	tol.	0 − 0,010	0 − 0,010	0 − 0,012	0 − 0,012	0 − 0,014	0 − 0,016	0 − 0,018	0 − 0,022	0 − 0,025
d_2		70,6	82,6	104,8	133,4	171,4	235	330,2	463,6	647,6
d_3		M10	M10	M10	M12	M16	M20	M24	M24	M30
f		16	20	22	25	28	35	42	48	56
k		14	17	19	22	25	32	37	42	50
w		0,2	0,2	0,2	0,2	0,2	0,2	0,3	0,3	0,3

2.2 Connecting faces

The connecting face dimensions of the chuck or face plate corresponding to the spindle noses specified in 2.1 are shown in Figure 2 and given in Table 2.

The number of holes depends upon the manufacturer's design; their pitch shall be a multiple of 30° in any combination to match the spindle holes.