
International Standard



6169

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

Textile machinery and accessories — Flanged bobbins for doubling and twisting

Matériel pour l'industrie textile — Bobines à joues à doubler et à retordre

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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 6169 was developed by Technical Committee ISO/TC 72, *Textile machinery and allied machinery and accessories*, and was circulated to the member bodies in September 1981.

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

Australia	Italy	Spain
Brazil	Japan	Turkey
Bulgaria	Korea, Rep. of	United Kingdom
Egypt, Arab Rep. of	Poland	USSR
Germany, F.R.	Romania	
India	South Africa, Rep. of	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Belgium
Czechoslovakia

Textile machinery and accessories — Flanged bobbins for doubling and twisting

0 Introduction

The bobbins specified in this International Standard are suitable for use with the range of ring sizes listed in ISO 97 and at each of the ring sizes the effective or working length of the bobbin i.e. allied to the lift of the machine, agrees with the equivalent basis used in ISO 368. The diameters of the flanges have been arranged generally to enable sufficient clearance between the flange and the ring when plastic travellers are used according to ISO 2802. However, certain makes of plastic travellers may have dimensions on the outside which might not work within the resulting clearance and a check should take place between the purchaser and supplier of the bobbin.

The barrel diameter has been founded on an angle of wind of 21° and rounded to the nearest diameter of aluminium tube commercially available.

1 Scope and field of application

This International Standard defines the terms for the main features and principal dimensions of flanged bobbins for doubling and twisting.

The principal dimensions are those which relate to the allied parts of the machine on which they fit and other accessories in conjunction with which they are called to operate.

NOTE — In addition to the terms used in the three official ISO languages (English, French and Russian), this International Standard gives the equivalent terms in German and Italian; these terms have been included at the request of Technical Committee ISO/TC 72 and are published under the responsibility of the member bodies for

Germany, F.R. (DIN) and Italy (UNI). However only the terms given in the official languages can be considered as ISO terms.

2 References

ISO 97, *Textile machinery and accessories — Rings for spinning, doubling and twisting for ear-shaped travellers.*

ISO 368, *Textile machinery and accessories — Tubes for ring-spinning, doubling and twisting spindles, taper 1 : 38 and 1 : 64.*

ISO 2802, *Textile machinery and accessories — Plastic travellers for spinning and twisting.*

3 Terminology

See figure 1 and table 1.

4 Material

Bobbins shall be made from wood, light alloys, plastics or other suitable materials, according to arrangements made between the purchaser and the supplier.

5 Protection shields

Protection shields may be applied to the rim of the flanges and should be arranged to lie within the external dimensions listed for the flanges.

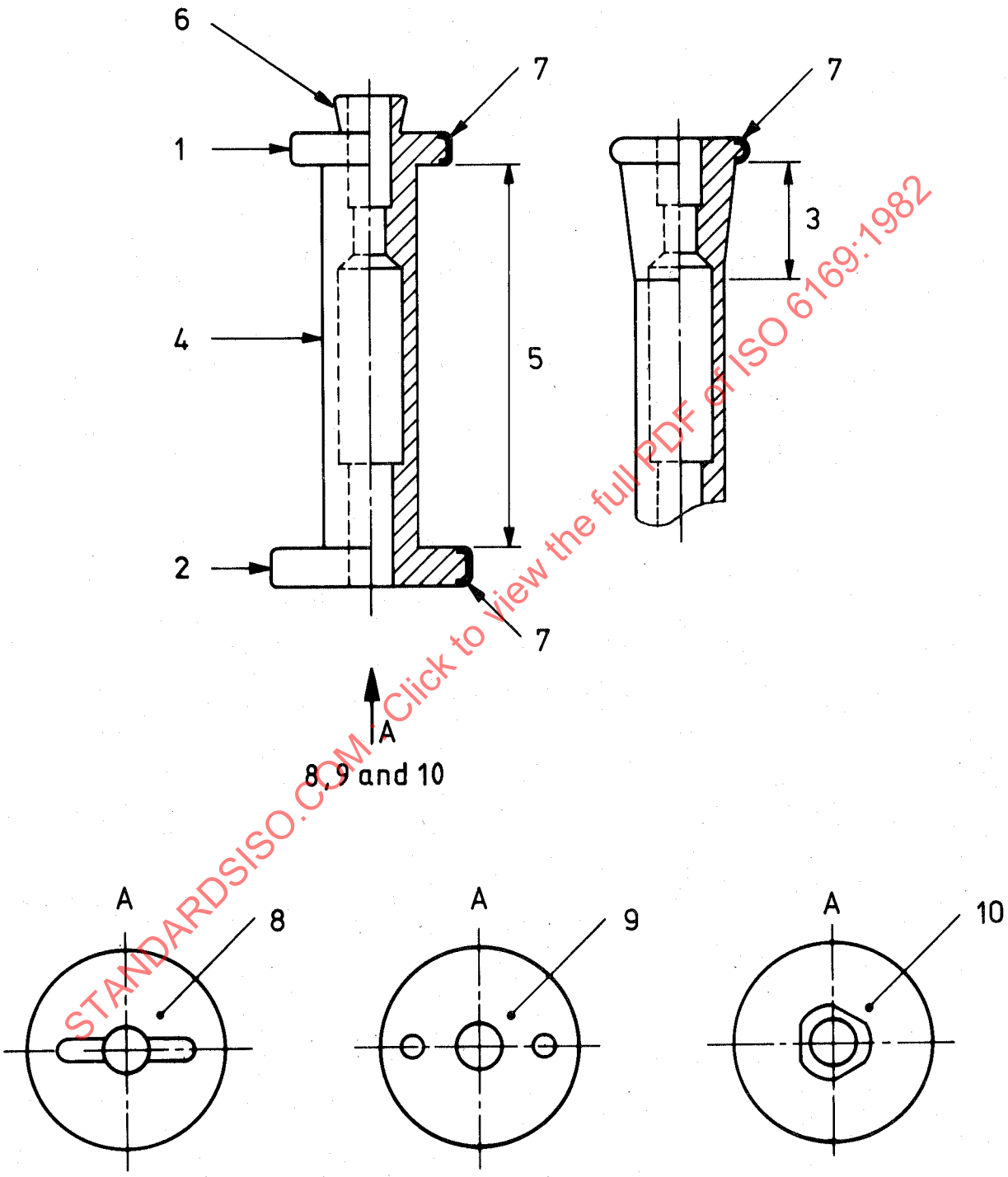


Figure 1 — Flanged bobbin (Terminology)

Table 1 — Terminology

Ref.	English	French	Russian	German	Italian
1	Top flange	Joue supérieure	Верхний фланец	Kopfscheibe	Flangia superiore
2	Bottom flange	Joue inférieure	Нижний фланец	Fussscheibe	Flangia inferiore
3	Tapered top	Partie supérieure conique (du fût)	Верхняя коническая часть ствола	Konischer Schaftoberteil	Parte conica superiore del corpo
4	Barrel	Fût	Ствол	Schaft	Corpo
5	Traverse (or lift)	Distance entre joues (course)	Расстояние между фланцами	Hub	Lunghezza di zettatura
6	Knob	Bouton de préhension	— (не имеется эквивалентного термина)	Halteknopf	Impugnatura
7	Protection shield	Blindage de protection	Армирование	Beschlagring	Ghiera di protezione
8	Key drive	Entraînement par languette	Посадочное отверстие для шпонки привода	Mitnehmerschlitz	Sede per traino a chiavetta
9	Peg drive	Entraînement par doigts	Посадочное отверстие для штифтов привода	Mitnehmerlöcher	Sede per traino a pioli
10	Triangular drive	Entraînement curviligne à trois pans	Посадочное отверстие для треугольного штифта привода	Dreikant-Mitnehmer	Sede per traino a tre piani

6 Bobbins with equal diameter flanges

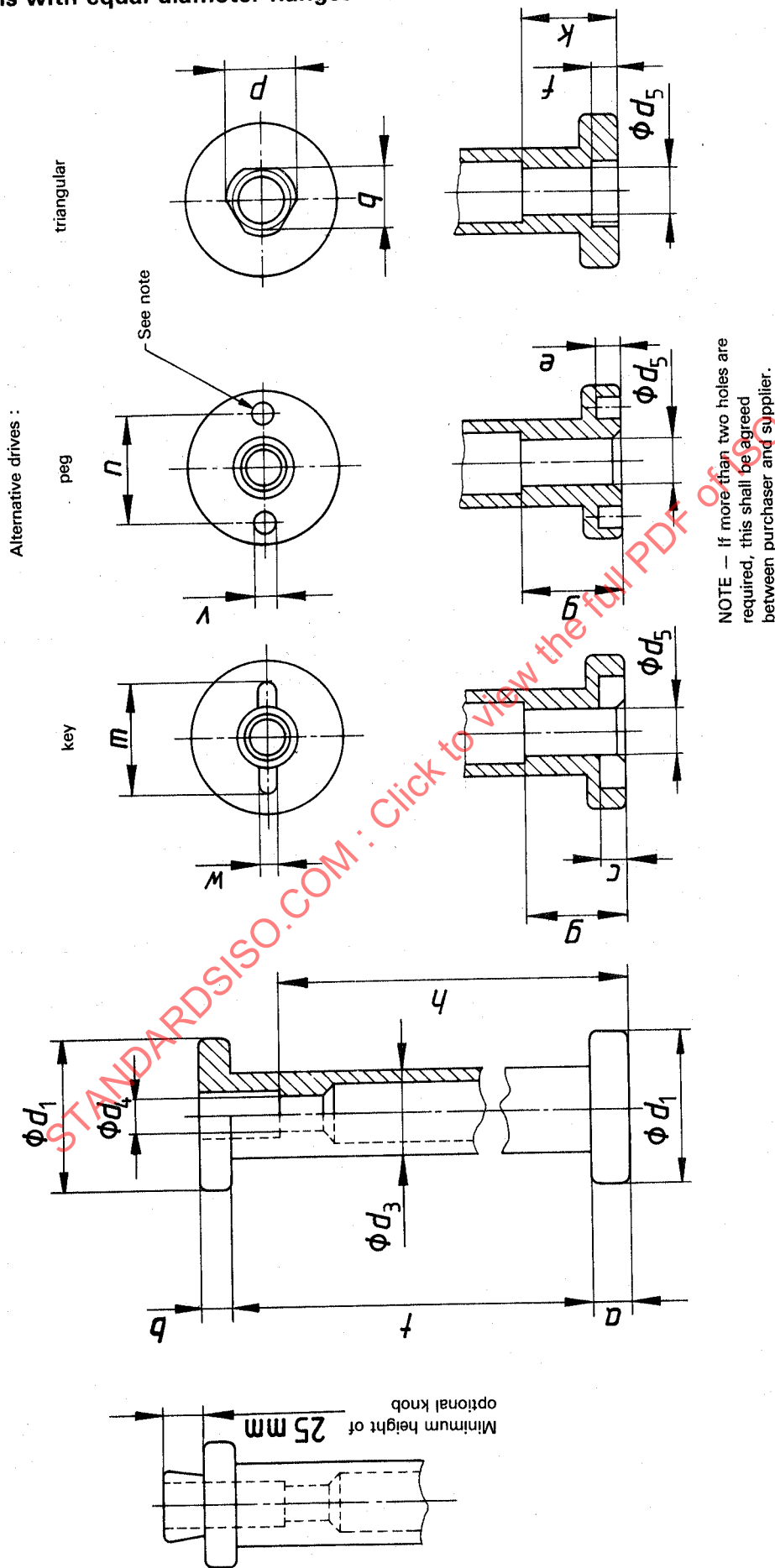


Figure 2 — Bobbins with equal diameter flanges

Table 2 — Dimensions of bobbins with equal diameter flanges

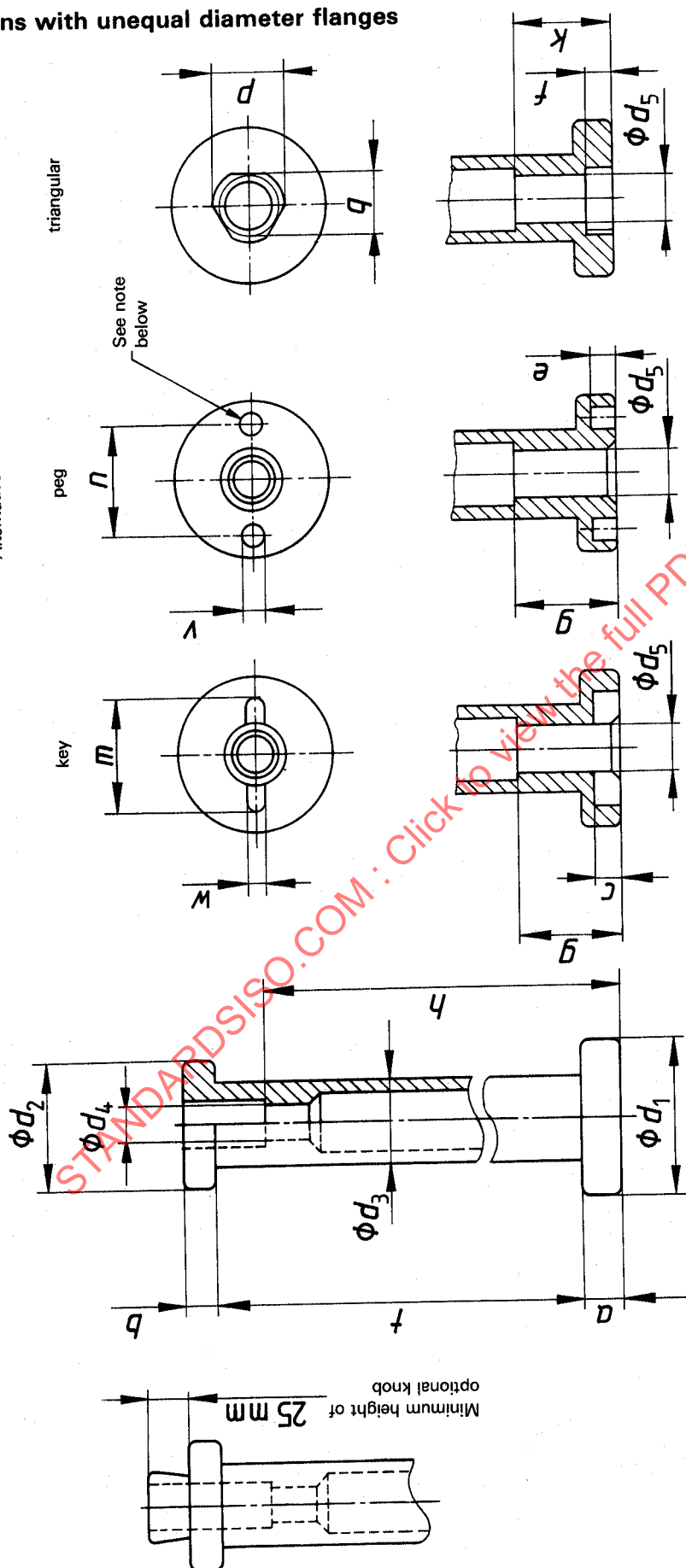
Values in millimetres

Ring diameter	d_1 h14	d_3	$d_4^{1)}$ H9	$d_5^{1)}$ H9	a	b	t	h	g	k	m	w	c	n	v	e	p	q	f
90	75	32	12,0	18,0	13	13	260 280	230 245	40	—	45	6	7	30	6	7	—	—	—
100	85	35	15,0	22,0	13	13	260 280 300	230 245 260	40	—	45	6	7	37	6	7	—	—	—
110	95	40	15,0	25,0	16	16	260 280 300 320 340	230 245 260 275 290	40	—	45	6	7	37	6	7	—	—	—
125	110	45	15,0	25,0	16	16	280 300 320 340 360 380	245 260 275 290 310 330	40	45	45	6	7	37	6	7	32,8	28,6	10
140	125	50	19,0	25,0	16	16	300 320 340 360 380 400 450	260 275 290 310 330 350 380	40	45	60	9	10	48	9	10	32,8	28,6	10
160	140	55	19,0	31,0	16	16	300 320 340 360 380 400 450	260 275 290 310 330 350 380	40	45	60	9	10	48	9	10	41,5	36,6	15
180	160	60	19,0	31,0	20	20	320 340 360 380 400 450	275 290 310 330 350 380	40	45	60	9	10	48	9	10	41,5	36,6	15
200	180	70	22,0	40,0	20	20	320 340 360 380 400 450	275 290 310 330 350 380	40	45	80	9	10	60	9	10	57,5	48,1	18
225	205	80	22,0	40,0	20	20	340 360 380 400 450	290 310 330 350 380	40	45	80	9	10	60	9	10	57,5	48,1	18
250	230	90	22,0	40,0	20	20	360 380 400 450	310 330 350 380	40	45	80	9	10	60	9	10	57,5	48,1	18

1) The tolerance of the bores d_4 and d_5 for wooden bobbins shall be agreed between the purchaser and supplier and, if necessary, the machine manufacturer.

7 Bobbins with unequal diameter flanges

Alternative drives :



NOTE — If more than two holes are required, this shall be agreed between purchaser and supplier.

NOTE — The finite shape of the bobbin top and diameter of top flange shall be decided between the purchaser (to take into account the recommendations of the machinery manufacturer) and the supplier according to the type of work for which the bobbin is to be used. For some types of work the bobbin may not require a top flange and in this case, the barrel length, t , shall be extended by the dimension b .

Figure 3 — Bobbins with unequal diameter flanges

Table 3 — Dimensions of bobbins with unequal diameter flanges

Values in millimetres

Ring diameter	d_1 h14	d_2 max.	d_3	$d_4^{1)}$ H9	$d_5^{1)}$ H9	a	b	t	h	g	k	m	w	c	n	v	e	p	q	f
90	75	50	32	12,0	18,0	13	10	260 280	230 245	40	—	45	6	7	30	6	7	—	—	—
100	85	56	35	15,0	22,0	13	10	260 280 300	230 245 260	40	—	45	6	7	37	6	7	—	—	—
110	95	63	40	15,0	25,0	16	13	260 280 300 320 340	230 245 260 275 290	40	—	45	6	7	37	6	7	—	—	—
125	110	73	45	15,0	25,0	16	13	280 300 320 340 360 380	245 260 275 290 310 330	40	45	45	6	7	37	6	7	32,8	28,6	10
140	125	84	50	19,0	25,0	16	13	300 320 340 360 380 400 450	260 275 290 310 330 350 380	40	45	60	9	10	48	9	10	32,8	28,6	10
160	140	95	55	19,0	31,0	16	13	300 320 340 360 380 400 450	260 275 290 310 330 350 380	40	45	60	9	10	48	9	10	41,5	36,6	15
180	160	107	60	19,0	31,0	20	16	320 340 360 380 400 450 500	275 290 310 330 350 380 410	40	45	60	9	10	48	9	10	41,5	36,6	15
200	180	120	70	22,0	40,0	20	16	320 340 360 380 400 450 500	275 290 310 330 350 380 410	40	45	80	9	10	60	9	10	57,5	48,1	18
225	205	137	80	22,0	40,0	20	16	340 360 380 400 450 500	290 310 330 350 380 410	40	45	80	9	10	60	9	10	57,5	48,1	18
250	230	155	90	22,0	40,0	20	16	360 380 400 450 500 550 600	310 330 350 380 410 445 480	40	45	80	9	10	60	9	10	57,5	48,1	18

1) The tolerances of the bores d_4 and d_5 for wooden bobbins shall be agreed between the purchaser and the supplier and, if necessary, the machine manufacturer.