



SLOVENSKI STANDARD

SIST ISO 4247:1995

01-november-1995

Vodilne puše in pribor za vrtalne priprave - Mere

Jig bushes and accessories for drilling purposes -- Dimensions

Guides de perçage et accessoires -- Dimensions

Ta slovenski standard je istoveten z: **ISO 4247:1977**

[SIST ISO 4247:1995](https://standards.iteh.ai/catalog/standards/sist/36535077-e5bd-46a6-b1cf-71be1f5e4751/sist-iso-4247-1995)

<https://standards.iteh.ai/catalog/standards/sist/36535077-e5bd-46a6-b1cf-71be1f5e4751/sist-iso-4247-1995>

ICS:

25.060.20	Delilniki in vpenjala za orodja in obdelovance	Dividing and tool-workpiece holding devices
-----------	---	--

SIST ISO 4247:1995

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ISO 4247:1995

<https://standards.iteh.ai/catalog/standards/sist/36535077-e5bd-46a6-b1cf-71be1f5e4751/sist-iso-4247-1995>

INTERNATIONAL STANDARD



4247

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

Jig bushes and accessories for drilling purposes — Dimensions

Guides de perçage et accessoires — Dimensions

First edition — 1977-12-15

ITeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ISO 4247:1995](https://standards.iteh.ai/catalog/standards/sist/36535077-e5bd-46a6-b1cf-71be1f5e4751/sist-iso-4247-1995)

<https://standards.iteh.ai/catalog/standards/sist/36535077-e5bd-46a6-b1cf-71be1f5e4751/sist-iso-4247-1995>

UDC 621.951

Ref. No. ISO 4247-1977 (E)

Descriptors : tools, drilling jigs, dimensions, equipment specifications.

Price based on 9 pages

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 4247 was developed by Technical Committee ISO/TC 29, *Small tools*, and was circulated to the member bodies in September 1976.

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

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

No member body expressed disapproval of the document.

Jig bushes and accessories for drilling purposes — Dimensions

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions of bushes to be fitted to jigs for guiding twist drills, and of accessories for use with renewable bushes.

It deals with the following subjects :

- press-fit bushes, which may be either headed or headless;
- liners, which may be either headed or headless, the dimensions of which are taken from the press-fit range of bushes;
- renewable bushes, fixed type and slip type;
- methods of retaining renewable bushes;
- accessories (i.e. tenons, locking screws and stop pins).

NOTE — The methods of retaining bushes described in clause 6 are in general use, and member bodies will normally select one of these methods for their national standards.

If so desired, it is permitted to supply renewable bushes which can be used either as fixed type or slip type by providing the heads with the necessary features.

2 REFERENCE

ISO 4248, *Jig bushes — Definitions and nomenclature*.¹⁾

3 TOLERANCES

The definitive tolerances to be used are still subject to discussion. In the meantime, for jig bushes used for general purposes, the following tolerances are recommended :

3.1 Tolerances for press fit bushes and liners

- F7 on bore diameter;
- n6 on body diameter;
- h13 on head diameter.

3.2 Tolerances for renewable bushes

- F7 on bore diameter;
- m6 on body diameter;
- h13 on head diameter.

3.3 Tolerances on stop pins

Stop pins, when required, shall be supplied with a tolerance of m6.

When this type of pin is to be used, the bush manufacturer shall provide a locating hole, with a tolerance of H7, in the head of the bush, positioned according to the dimensions shown in table 4.

3.4 Tolerance for jig-plate holes

Press-fit bushes and liners shall be located in holes which have an H7 tolerance.

1) At present at the stage of draft.

ISO 4247-1977 (E)

4 PRESS-FIT BUSHES AND LINERS

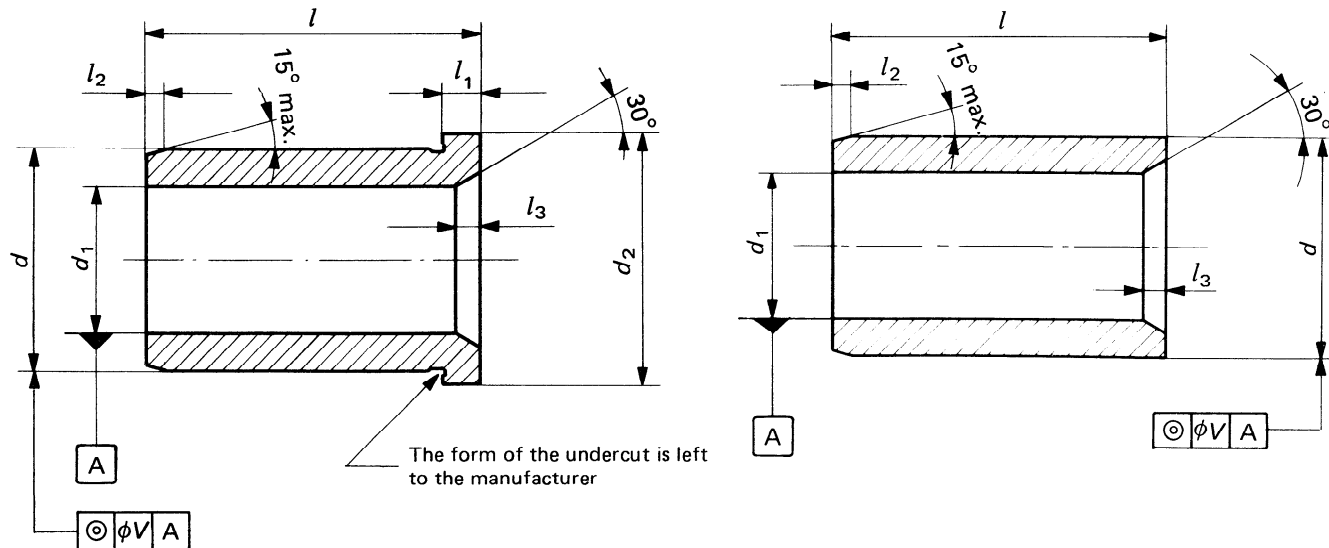


FIGURE 1 — Press-fit bush or liner — Headed type

FIGURE 2 — Press-fit bush or liner — Headless type

STANDARD PREVIEW
(standards.itech.ai)

SIST ISO 4247:1995
TABLE 1 — Dimensions of liners
<https://standards.itech.ai/catalog/standards/sist/50535077-e5bd-46a6-b1cf-71be15e4751/sist-iso-4247-1995>

Values in millimetres

Diameter of bore d_1 (F7)	Diameter of body d (n6)	Head		Length l			Lead on outside diameter l_2 max.	Entry chamfer ¹⁾ l_3 max.	Concen- tricity (F.I.M.) V
		diameter d_2 (h13)	thickness l_1	short	long	extra- long			
8	12	15	3	10	16	—	1,25	1,5	0,02
10	15	18		12	20	25	1,5	2	
12	18	22		4	16	28			
15	22	26	20		36	45	2,5	3	
18	26	30	25		45	56			
22	30	34	5	30	56	67	3,0	3,5	0,04
26	35	39		35	67	78		4	
30	42	46		40	78	105			
35	48	52	6	45	89	112		4	
42	55	59							
48	62	66							
55	70	74							
62	78	82							
70	85	90							
78	95	100							
85	105	110							
95	115	120							
105	125	130							

1) As an alternative, a radius may be used

TABLE 2 – Dimensions of press-fit bushes

Values in millimetres

Diameter of bore d_1 (F7)		Diameter of body d (n6)	Head		Length l			Lead on outside diameter l_2 max.	Entry chamfer ¹⁾ l_3 max.	Concen- tricity (F.I.M.) V
over	up to and including		diameter d_2 (h13)	thickness l_1	short	long	extra- long			
—	1	3	6	2	6	9	—	1	1	0,01
1	1,8	4	7							
1,8	2,6	5	8							
2,6	3,3	6	9							
3,3	4	7	10	2,5	8	12	16	1	1	0,01
4	5	8	11							
5	6	10	13							
6	8	12	15							
8	10	15	18	3	10	16	20	1,25	1,5	0,02
10	12	18	22							
12	15	22	26							
15	18	26	30							
18	22	30	34	4	12	20	25	1,5	2	0,02
22	26	35	39							
26	30	42	46							
30	35	48	52							
35	42	55	59	5	16	28	36	2,5	3	0,02
42	48	62	66							
48	55	70	74							
55	63	78	82							
63	70	85	90	6	20	36	45	3	4	0,04
70	78	95	100							
78	85	105	110							
85	95	115	120							
95	105	125	130	6	25	45	56	3	4	0,04
				6	30	56	67	3	4	0,04
				6	35	67	78	3	4	0,04
				6	40	78	105	3	4	0,04
				6	45	89	112	3	4	0,04

1) As an alternative, a radius may be used.

ISO 4247-1977 (E)

5 RENEWABLE BUSHES

5.1 General dimensions

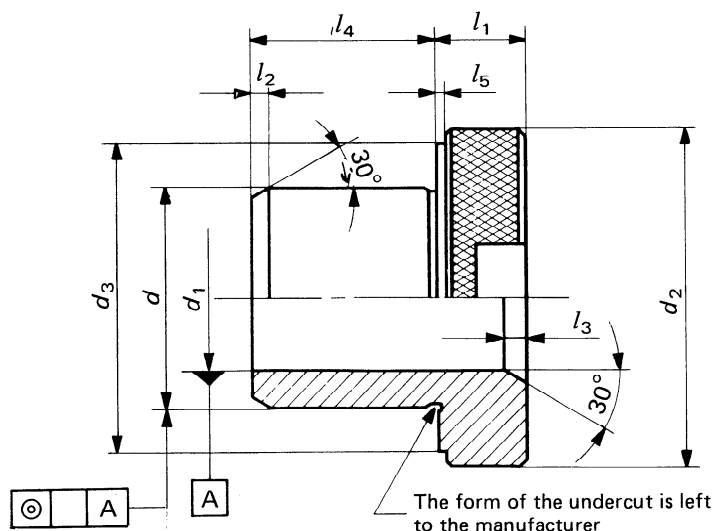


FIGURE 3 — Renewable bush

iTeh STANDARD PREVIEW

(standards.iteh.ai)

TABLE 3 — General dimensions of renewable bushes

Values in millimetres

Diameter of bore d_1 (F7)		Diameter of body d (m6)	Head details				Length under head l_4			Lead on outside diameter l_2 (max.)	Entry chamfer ¹⁾ l_3 (max.)	Concen- tricity (F.I.M.) V							
over	up to and including		diameter d_2 (h13)	thickness l_1	washer details		short	long	extra- long										
					diameter d_3 0 − 0,25	thickness l_5 0 − 0,25													
0	4	8	15	8	12	1	10	16	—	1,25	1,0	0,02							
4	6	10	18		15		12	20	25	1,5	1,5								
6	8	12	22	10	18		16	28	36				2						
8	10	15	26		22		20	36	45	2,5	3								
10	12	18	30	12	26		25	45	56				3,0	3,5					
12	15	22	34		30	1,5	30	56	67	4									
15	18	26	39		35						2	35			67	78			
18	22	30	46		42												40	78	105
22	26	35	52		46														
26	30	42	59	53	124														
30	35	48	66	60		2	35	67	78										
35	42	55	74	68						40	78	105							
42	48	62	82	76									45	89	112				
48	55	70	90	84												124			
55	62	78	100	94	124														
62	70	85	110	104		124													
70	78	95	120	114			124												
78	85	105	130	124				124											

1) As an alternative, a radius may be used.

5.2 Head details

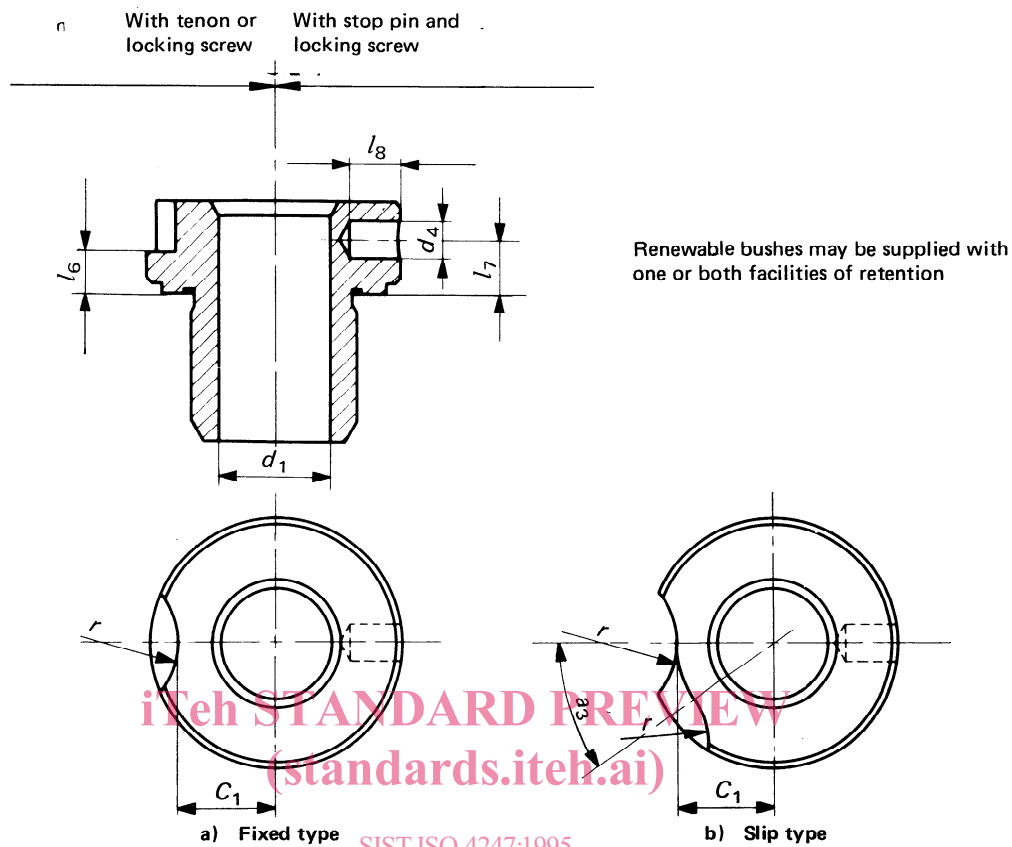


FIGURE 4 — Renewable bush head

TABLE 4 — Head details

Values in millimetres

Diameter of bore d_1		With tenon or locking screw				With stop pin		
over	up to and including	l_6	C_1 max.	Radius r	a_3 degrees	l_7	d_4 H7	l_8
0	4	3	4,5	7,0	65	4,25	2,5	4
4	6	3	6	7,0	65			
6	8	4	7,5	8,5	60	6	3	5
8	10	4	9,5	8,5	50			
10	12	4	11,5	8,5	50			
12	15	5,5	13	10,5	35	7	5	7
15	18	5,5	15,5	10,5	35			
18	22	5,5	19	10,5	30			
22	26	5,5	22	10,5	30	6,5	6	9
26	30	5,5	25,5	10,5	30			
30	35	7	28,5	12,5	30	9		8
35	42	7	32,5	12,5	25			
42	48	7	36,5	12,5	25	8	8	14
48	55	7	40,5	12,5	25			
55	62	7	45,5	12,5	25			
62	70	7	50,5	12,5	20			
70	78	7	55,5	12,5	20			
78	85	7	60,5	12,5	20			