
**Textile machinery and accessories — Steel
pins for spinning preparatory and spinning
machinery**

*Matériel pour l'industrie textile — Pointes en acier pour les matériels de
préparation de filature et de filature*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 9904:2000](https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-384e7128e6e3/iso-9904-2000)

[https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-
384e7128e6e3/iso-9904-2000](https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-384e7128e6e3/iso-9904-2000)



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 9904:2000

<https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-384e7128e6e3/iso-9904-2000>

© ISO 2000

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Contents

Page

Foreword.....	iv
1 Scope	1
2 Basic dimensions	1
3 Round pins	2
4 Round pins with notch	6
5 Flat pins	7
6 Flat pins with foot	9
Bibliography	11

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 9904:2000

<https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-384e7128e6e3/iso-9904-2000>

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 9904 was prepared by Technical Committee ISO/TC 72, *Textile machinery and machinery for dry-cleaning and industrial laundering*, Subcommittee SC 1, *Spinning preparatory, spinning, twisting and winding machinery and accessories*.

This second edition cancels and replaces the first edition (ISO 9904:1989), which has been technically revised.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 9904:2000](https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-384e7128e6e3/iso-9904-2000)

<https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-384e7128e6e3/iso-9904-2000>

Textile machinery and accessories — Steel pins for spinning preparatory and spinning machinery

1 Scope

This International Standard specifies the dimensions, characteristics and designations of steel pins recommended for spinning preparatory and spinning machinery.

2 Basic dimensions

The basic dimensions of the pins are given in Table 1.

Table 1 — Basic dimensions of pins (see Figures 1 to 4)

Number	<i>d, a or b</i> mm
1	7,62
2	7,01
3	6,35
4	5,97
5	5,39
6	4,88
7	4,47
8	4,06
9	3,76
10	3,35
11	2,95
12	2,62
13	2,34
14	1,98
15	1,79
16	1,63
17	1,42
18	1,22
19	1,07
20	0,99
21	0,88
22	0,79
23	0,71
24	0,62
25	0,535
26	0,5
27	0,44
28	0,38
29	0,355
30	0,33
31	0,3
32	0,28
33	0,25

3 Round pins

3.1 Dimensions

Round pins are divided into the following three types:

— Type A: Round pins for spinning preparatory machinery, in which

$$l_2 = \frac{2}{3} l_1 \text{ for } 5,56 \text{ mm} < l_1 < 17,46 \text{ mm}$$

$$l_2 = \frac{3}{4} l_1 \text{ for } 19,05 \text{ mm} < l_1 < 50,8 \text{ mm}$$

— Type B: Hackle pins for bast fibre spinning machinery, in which

$$l_2 = \frac{1}{2} l_1$$

— Type C: Card pins, in which

$$l_2 = \frac{1}{4} l_1$$

Figure 1 shows round pin dimensions, using Type A, $l_2 = \frac{2}{3} l_1$, as an example. The dimensions of the various round pin types are given in Table 2.

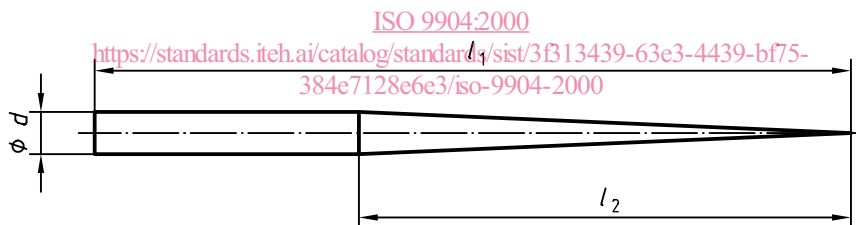


Figure 1 — Round pin

3.2 Characteristics

Material: Steel (quality at the choice of the manufacturer)

Vickers hardness: Diameter Nos. 1 to 20: 620 HV2 to 750 HV2
 Diameter Nos. 21 to 33: 700 HV2 to 800 HV2

Surface roughness: Types A and B: $Ra \leq 0,1 \mu\text{m}$
 Type C: $Ra \leq 0,8 \mu\text{m}$

Table 2 — Dimensions and types of round pins

Diameter			Round pin type (A, B or C)																							
			Code number																							
			7/32	1/4	9/32	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2
			Length l_1 , mm																							
No. ^a	d mm	d tol. mm	l_1 tolerances																							
			0 - 0,2								0 - 0,3															
7	4,47	+ 0,005 - 0,025																	B							
8	4,06																			B					A	
9	3,76																			C	B	C	C	C	C	
(9 1/2)	3,56																			C	C	C	C	C	C	
10	3,35																B			C	B	C	C	A	A	A
(10 1/2)	3,15	+ 0,003 - 0,018																	C	C	C	C	C	C		
11	2,95															C	B			C	B	C	A	A	A	
(11 1/2)	2,78															C	C			C	C	C	C	C	C	
12	2,62															C	B			C	B	C	A	A	A	
(12 1/2)	2,48															C	C			C	C	C	C	C	C	
13	2,34															C	B			C	B	C	A	A	A	
(13 1/2)	2,16															C	C			C	C	C	C	C	C	
14	1,98															C	B			C	B	C	A	A	A	
14 1/2	1,88															C	C			C	C	C	C	C	C	
15	1,79															C	A			C	A	B	A	A	A	
(15 1/2)	1,72															C	B			C	C	C	C	C	C	

Table 2 (continued)

Diameter			Round pin type (A, B or C)																							
			Code number																							
			7/32	1/4	9/32	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2
			Length l_1 , mm																							
			5,56	6,35	7,14	9,53	11,11	12,7	14,29	15,88	17,46	19,05	20,64	22,23	23,81	25,4	26,99	28,58	30,16	31,75	34,93	38,1	41,28	44,45	47,63	50,8
No. ^a	d mm	d tol. mm	l_1 tolerances																							
			0 - 0,2								0 - 0,3															
16	1,63	+ 0,003 - 0,018						A	A	A			A	A	A	A	A	A	A	A	A	A	A	A		
(16 1/2)	1,52																									
17	1,42								A	A				A	A	A	A	A	A	A	A	A	A			
18	1,22								A	A	A			A	A	A	A	A	A	A	A	A	A			
19	1,07								A	A	A			A	A	A	A	A	A	A	A	A				
20	0,99	+ 0,003 - 0,015						A	A	A			A	A	A	A	A	A	A	A	A					
21	0,88		A	A																						
22	0,79		A	A	A	A	A		A																	
23	0,71		A	A	A	A	A																			
24	0,62		A	A	A	A	A		A																	
25	0,535		A	A	A	A	A		A	A	A															
26	0,5		A	A	A	A	A		A	A																
27	0,44	A	A																							
28	0,38																									
29	0,355																									

iTeh STANDARD PREVIEW
(standardsiteh.ai)

ISO 9904:2000
<https://standards.iteh.ai/catalog/standards/sist/51b38429-66c5-4431-b173-384e7128e6e3/iso-9904-2000>

Table 2 (continued)

Diameter			Round pin type (A, B or C)																										
			Code number																										
			7/32	1/4	9/32	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	1 1/16	1 1/8	1 3/16	1 1/4	1 3/8	1 1/2	1 5/8	1 3/4	1 7/8	2			
			Length l_1 , mm																										
No. ^a	d mm	d tol. mm	5,56	6,35	7,14	9,53	11,11	12,7	14,29	15,88	17,46	19,05	20,64	22,23	23,81	25,4	26,99	28,58	30,16	31,75	34,93	38,1	41,28	44,45	47,63	50,8			
			l_1 tolerances																										
			0 - 0,2										0 - 0,3																
30	0,33	+ 0,002 - 0,01				A	A																						
31	0,3					A																							
32	0,28					A																							
33	0,25					A																							

^a Pins with numbers shown in parentheses shall be used for repair purposes only.

3.3 Designation

ISO 9904:2000

[https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-](https://standards.iteh.ai/catalog/standards/sist/3f313439-63e3-4439-bf75-374b73866235/iso-9904-2000)

The designation of a round pin shall include the following information in the order given:

- “round pin”;
- reference to this International Standard;
- type (A, B or C);
- diameter number;
- length, l_1 .

EXAMPLE Round pin ISO 9904 – B 16 – 25,4