INTERNATIONAL STANDARD

ISO 93-2

Third edition
2006-04-01

Textile machinery and accessories — Cylindrical sliver cans —

Part 2: Spring bottoms

Matériel pour l'industrie textile — Pots cylindriques pour rubans —

Partie 2: Fonds à ressort

Reference number
ISO 93-2:2006(E)

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 93-2 was prepared by Technical Committee ISO/TC 72, *Textile machinery and accessories*, Subcommittee SC 1, *Spinning preparatory, spinning, twisting and winding machinery and accessories*.

This third edition cancels and replaces the second edition (ISO 93-2:1999), which has been technically revised.

ISO 93 consists of the following parts, under the general title *Textile machinery and accessories — Cylindrical sliver cans*:

— *Part 1: Main dimensions*

— *Part 2: Spring bottoms*

Textile machinery and accessories — Cylindrical sliver cans —

Part 2: Spring bottoms

1 Scope

This part of ISO 93 specifies the principal features of spring bottoms — with and without pre-tension — for cylindrical sliver cans, as specified in ISO 93-1, used in the textile industry.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 93-1, *Textile machinery and accessories — Cylindrical sliver cans — Part 1: Main dimensions*

3 Symbols

d inside diameter of sliver can

d_4 outside diameter of spring plate

h overall height

h_2 distance from top rim of can to surface of spring plate

h_3 depth of spring plate

F_n force of spring

F_v force of spring in top working position

L_0 length of unloaded spring

L_v length of spring in top working position (i.e. when constrained)

4 Principal features

4.1 Spring bottoms for cylindrical cans without castors

See Figures 1 and 2, and Table 1.

For type A (see Figure 1), force of spring F_n and tolerances of parallelism of the spring plate shall be agreed between the producer, machine manufacturer and customer.

For type B (see Figure 2), force of spring F_n and force of spring in top working position F_v, as well as tolerances of parallelism of the spring plate, shall be agreed between the producer, machine manufacturer and customer.

The distance from the top rim of can to surface of spring plate h_2 shall be

— for type A, between $\geqslant$ 5 mm and $\leqslant$ 70 mm, and

— for type B, equal to 20 mm.

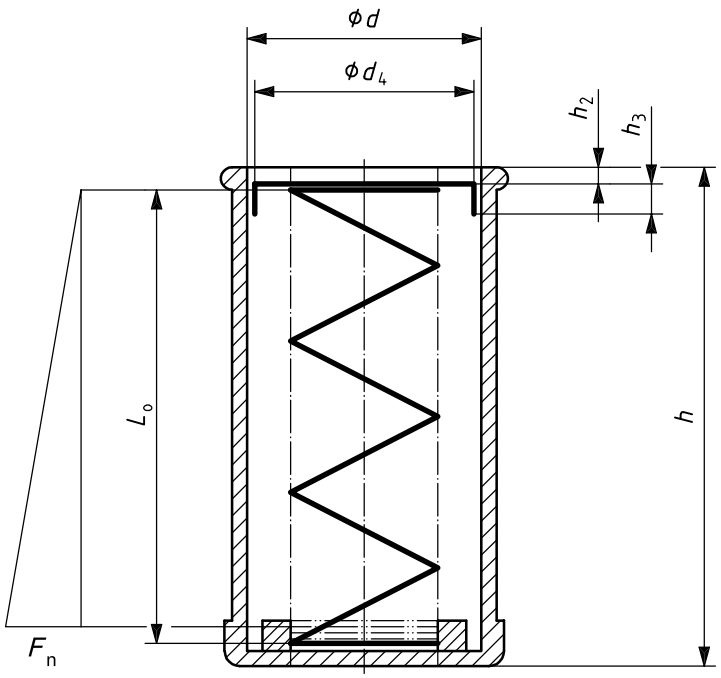

Figure 1 — Spring bottom without pre-tension — Type A

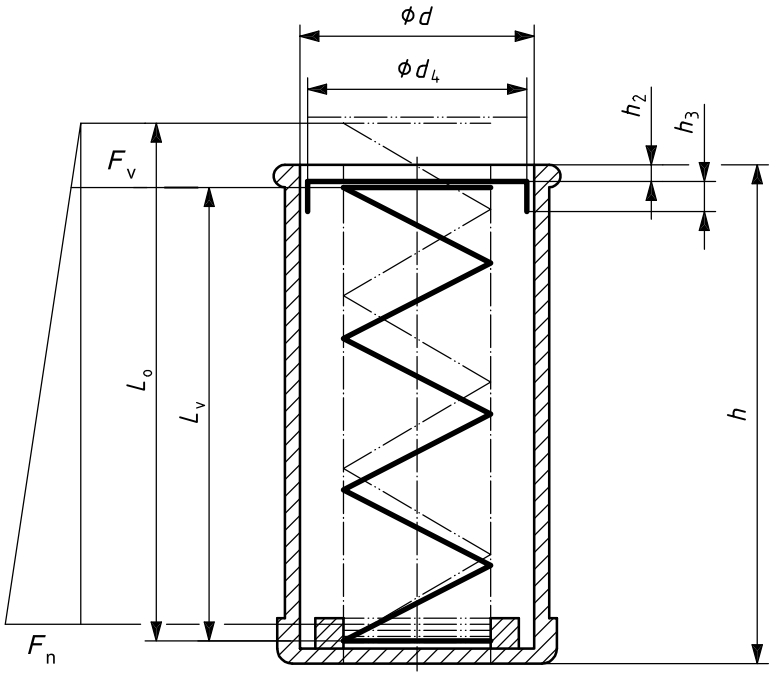

Figure 2 — Spring bottom with pre-tension — Type B

Table 1 — Principal features of spring bottoms — Types A and B

Dimensions in millimetres

Size of can [a]		Characteristics of spring		Spring plate	
d	h	Type A	Type B	d_4	h_3
± 3		$L_0 \pm 30$	$L_0 \pm 30$		
300	900	840	940	285	50
350				335	50
400				385	50
450				435	50
500				485	55
600				585	60
700				682	70
300	1 000	940	1 040	285	50
350				335	50
400				385	50
450				435	50
500				485	55
600				585	60
700				682	70
400	1 100	1 040	1 140	385	50
450				435	50
500				485	55
600				585	60
700				682	70
450	1 200 [c]	1 140	1 240	435	50
500				485	55
600				585	60
700 [b]				682	70

[a] According to ISO 93-1.

[b] Inside diameters d greater than 700 mm shall be in increments of 100 mm.

[c] Heights h greater than 1 200 mm shall be in increments of 100 mm.

4.2 Spring bottoms for cylindrical cans with castors

See Figures 3 and 4, and Table 2.

For type C (see Figure 3), force of spring F_n and tolerances of parallelism of the spring plate shall be agreed between the producer, machine manufacturer and customer.

For type D (see Figure 4), force of spring F_n and force of spring in top working position F_V, as well as tolerances of parallelism of the spring plate, shall be agreed between the producer, machine manufacturer and customer.

The distance from the top rim of can to surface of spring plate h_2 shall be

— for type C, between $\geqslant$ 5 mm and $\leqslant$ 70 mm, and

— for type D, equal to 20 mm.

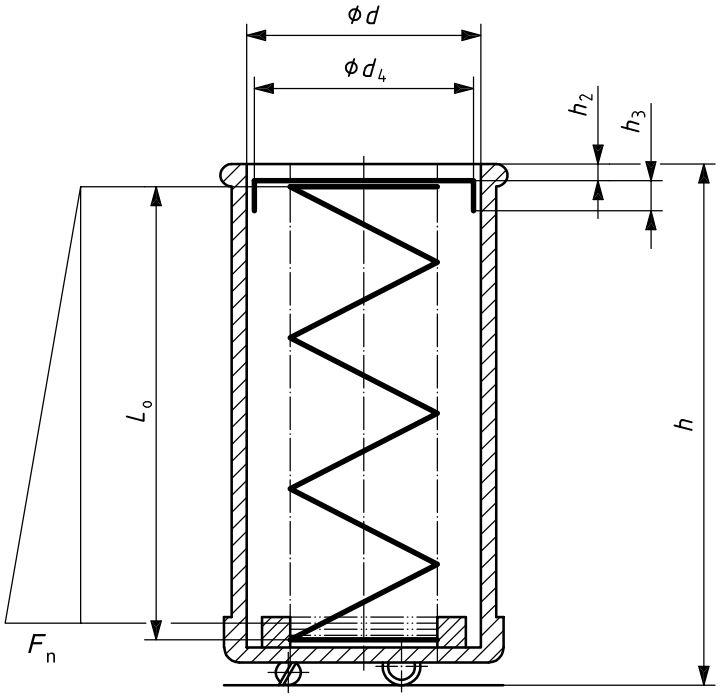

Figure 3 — Spring bottom without pre-tension — Type C

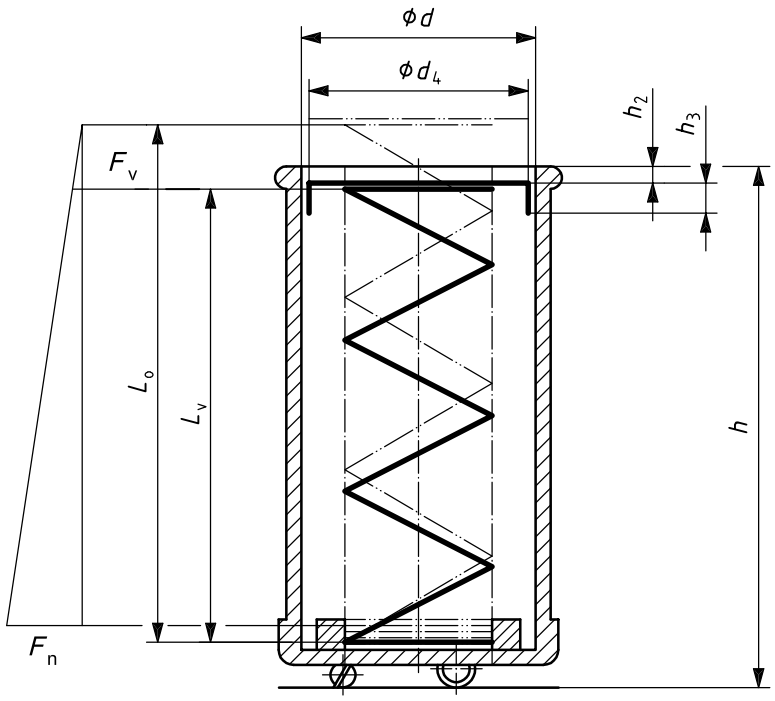

Figure 4 — Spring bottom with pre-tension — Type D

Table 2 — Principal features of spring bottoms — Types C and D

Dimensions in millimetres

Size of can [a]		Characteristics of spring		Spring plate	
d	h	Type C	Type D	d_4	h_3
± 3		$L_0 \pm 30$	$L_0 \pm 30$		
400	900	770	870	385	50
600				585	60
400	1 000	870	970	385	50
450				435	50
500				485	55
600				585	60
700				682	70
800				780	85
900				880	100
450	1 100	970	1 070	435	50
500				485	55
600				585	60
700				682	70
800				780	85
900				880	100
1000				980	100
450	1 200 [c]	1 070	1 170	435	50
500				485	55
600				585	60
700				682	70
800				780	85
900				880	100
1 000[b]				980	100

[a] According to ISO 93-1.

[b] Inside diameters d greater than 1 000 mm shall be in increments of 200 mm.

[c] Heights h greater than 1 200 mm shall be in increments of 100 mm.

5 Designation

The designation used for ordering a spring bottom for a cylindrical sliver can shall include the following information:

a) reference to this part of ISO 93, i.e. “ISO 93-2”;

b) type (i.e. A, B, C or D);

c) characteristics of the spring, i.e. L_0 and F_n;

d) dimensions of the spring plate, i.e. d_4 and h_3;

EXAMPLE Spring bottom for cylindrical sliver can, type D, length of unloaded spring L_0 = 1 170 mm, force of spring F_n = 34 daN, outside diameter of spring plate d_4 = 780 mm, depth of spring plate h_3 = 85 mm:

Spring bottom ISO 93-2 D 1170 × 34 - 780/85

ICS 59.120.10

Price based on 8 pages