
**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*
(standards.iteh.ai)

ISO 93-2:1999

<https://standards.iteh.ai/catalog/standards/sist/27142f16-d340-4f52-92d0-82a27661eebf/iso-93-2-1999>



Foreword

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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.

International Standard ISO 93-2 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 93-2:1978), 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

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International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

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, used in cylindrical sliver cans specified in ISO 93-1.

2 Normative reference

[ISO 93-2:1999](#)

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of ISO 93. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 93 are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 93-1:1998, *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	height of sliver can
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)

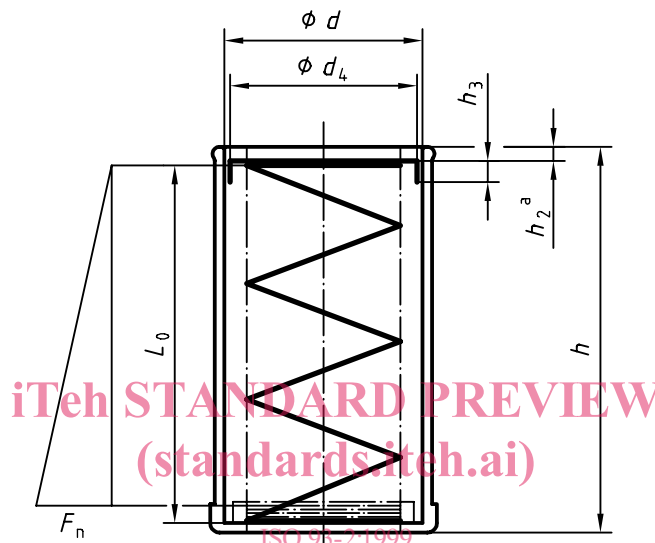
4 Principal features

4.1 Spring bottoms for cylindrical cans without castors

See Figures 1 and 2, and Table 1.

F_v as well as tolerances of parallelism of the spring plate shall be agreed between the producer, machine manufacturer and customer.

Dimensions in millimetres

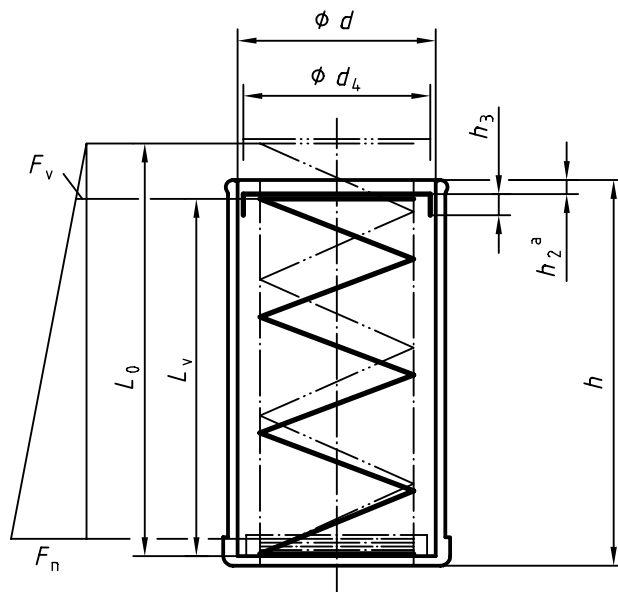


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a $5 \leq h_2 \leq 70$

Figure 1 — Spring bottom without pre-tension, type A

Dimensions in millimetres



a $h_2 = 20$

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 ± 3	h	Type A $L_0 \pm 30$	Type B $L_0 \pm 30$	d_4	h_3
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

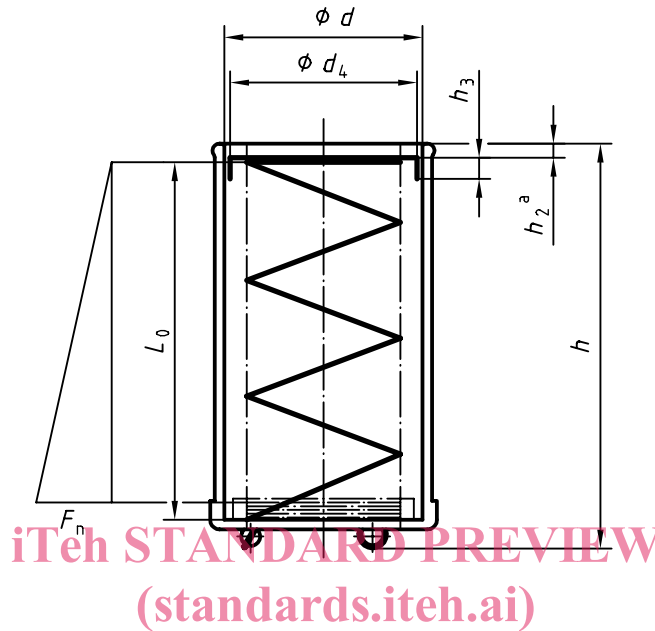
^a See ISO 93-1.
^b Diameters greater than 700 mm shall be in increments of 100 mm.
^c Heights greater than 1 200 mm shall be in increments of 100 mm.

4.2 Spring bottoms for cylindrical cans with castors

See Figures 3 and 4, and Table 2.

F_v as well as tolerances of parallelism of the spring plate shall be agreed between the producer, machine manufacturer and customer.

Dimensions in millimetres

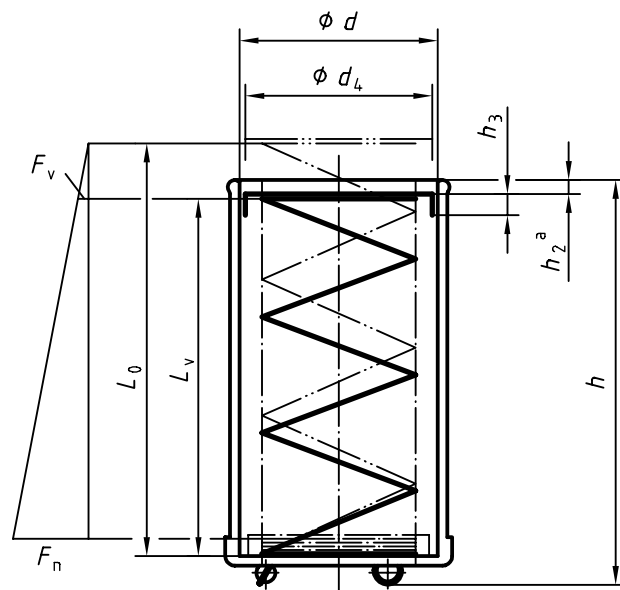


a $5 \leq h_2 \leq 70$

Figure 3 — Spring bottom without pre-tension, type C

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Dimensions in millimetres



a $h_2 = 20$

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 ± 3	h	Type C $L_0 \pm 30$	Type D $L_0 \pm 30$	d_4	h_3
400 600	900	770	870	385 585	50 60
400 450 500 600 700 800 900	1 000	870	970	385 435 485 585 682 780 880	50 50 55 60 70 85 100
450 500 600 700 800 900 1 000	1 100	970	1 070	435 485 585 682 780 880 980	50 55 60 70 85 100 100
450 500 600 700 800 900 1 000 ^b	1 200 ^c	1 070	1 170	435 485 585 682 780 880 980	50 55 60 70 85 100 100

^a See ISO 93-1.
^b Diameters greater than 1 000 mm shall be in increments of 200 mm.
^c Heights greater than 1 200 mm shall be in increments of 100 mm.

5 Order specification

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

- type;
- characteristics of the spring; i.e. L_0 and F_n ;
- 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 $L_0 = 1170$ 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 1 170 × 34 – 780/85

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