

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION



ISO RECOMMENDATION R 343

WARP TUBES FOR RING
SPINNING AND RING DOUBLING SPINDLES
INCH DIMENSIONS, TOLERANCES AND GAUGES

ISO/R 343:1963

<https://standards.iteh.ai/catalog/standards/sist/11df1e56-9aba-475d-8865-4e885d52758f/iso-r-343-1963>

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BRIEF HISTORY

The ISO Recommendation R 343, *Warp Tubes for Ring Spinning and Ring Doubling Spindles—Inch Dimensions, Tolerances and Gauges*, was drawn up by Technical Committee ISO/TC 72, *Textile Machinery and Accessories*, the Secretariat of which is held by the Association Suisse de Normalisation (SNV).

Work on this question by the Technical Committee began in 1958 and led, in 1960, to the adoption of a Draft ISO Recommendation.

In August 1961, this Draft ISO Recommendation (N° 449) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

Australia	Germany	Poland
Austria	India	Spain
Brazil	Italy	Switzerland
Chile	Netherlands	Turkey
Czechoslovakia	New Zealand	United Kingdom

One Member Body opposed the approval of the Draft: France.

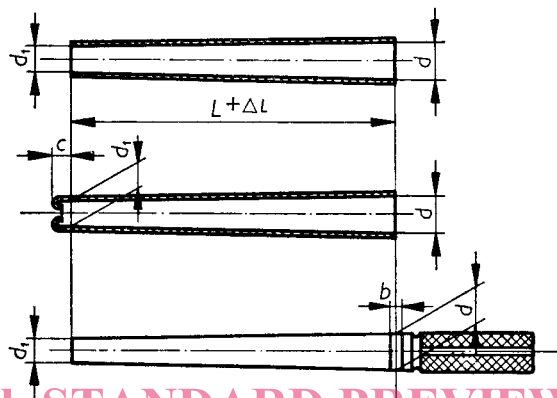
The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in September 1963, to accept it as an ISO RECOMMENDATION.

[ISO/R 343:1963](https://standards.iteh.ai/catalog/standards/sist/11df1e56-9aba-475d-8865-4e885d52758f/iso-r-343-1963)

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WARP TUBES FOR RING SPINNING AND RING DOUBLING SPINDLES

INCH DIMENSIONS, TOLERANCES AND GAUGES



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For tubes with rolled-in tops, it must be ascertained whether the loading capacity of the spindle will accommodate the additional load.

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1. DIMENSIONS OF WARP TUBES FOR SPRING GRIP SPINDLES, TAPER 1:64

TABLE 1. — Dimensions for Series A to F

Dimensions in inches

L	c	Series A		Series B		Series C		Series D		Series E		Series F	
		d	d ₁	d	d ₁	d	d ₁	d	d ₁	d	d ₁	d	d ₁
7	⁵ / ₁₆	0.614	0.505	0.667	0.558	0.719	0.610	0.771	0.662	—	—	—	—
8	⁵ / ₁₆	0.630	0.505	0.683	0.558	0.735	0.610	0.787	0.662	0.840	0.715	—	—
9	⁵ / ₁₆	—	—	—	—	0.751	0.610	0.803	0.662	0.856	0.715	0.961	0.820
10	⁵ / ₁₆	—	—	—	—	—	—	—	—	0.871	0.715	0.976	0.820
11	⁵ / ₁₆	—	—	—	—	—	—	—	—	0.887	0.715	0.992	0.820
12	⁵ / ₁₆	—	—	—	—	—	—	—	—	—	—	1.008	0.820
13	⁵ / ₁₆	—	—	—	—	—	—	—	—	—	—	1.023	0.820

TABLE 2. — Dimensions for Series G to L

Dimensions in inches

L	c	Series G		Series H		Series J		Series K		Series L	
		d	d ₁	d	d ₁	d	d ₁	d	d ₁	d	d ₁
10	3/8	1.081	0.925	—	—	—	—	—	—	—	—
11	3/8	1.097	0.925	1.202	1.030	—	—	—	—	—	—
12	3/8	1.113	0.925	1.217	1.030	1.323	1.135	—	—	—	—
13	3/8	1.128	0.925	1.233	1.030	1.338	1.135	1.443	1.240	—	—
14	3/8	—	—	—	—	—	—	1.459	1.240	1.564	1.345
15	3/8	—	—	—	—	—	—	—	—	1.579	1.345

2. TOLERANCES

2.1 Length and fit tolerances

TABLE 3. — Length and fit tolerances in inches for spring grip spindles only
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L	7	8-9	10-11	12	13-14	15
△ L	± 3/64	± 1/16	± 1/16	± 3/32	± 7/64	± 1/8
b	1/4	1/4	7/8	5/16	5/16	3/8

2.2 Taper tolerances

$$\text{Taper: } \frac{d - d_1}{L}$$

Minimum dimension: 1:64.

Maximum dimension: 1:62.

This corresponds to a tolerance on d of approximately + 0.005 inch on 10 inches in length.

The taper tolerance is tested with the tube cut into three equal parts.

2.3 Weight tolerances

The average weight of the tubes in one delivery may differ by ± 8 per cent from the agreed weight, providing no other tolerance has been agreed between buyer and seller. Pending publication of an ISO Recommendation on sampling, the sampling and average weight of tubes should be determined according to national standards or, in their absence, by agreement between buyer and seller.

For paper tubes, the average weight is equal to the oven dry weight plus 10 per cent extra for humidity.