

INTERNATIONAL  
STANDARD

**ISO**  
**3914-5**

First edition  
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**Textile machinery and accessories —  
Cylindrical tubes —**

**Part 5:**

Dimensions, tolerances and designation of  
tubes for continuous spin-drawn synthetic  
filament yarns

*Matériel pour l'industrie textile — Tubes cylindriques —*

*Partie 5: Dimensions, tolérances et désignation des tubes pour fils  
synthétiques continus pour machines d'étirage sous filature*



Reference number  
ISO 3914-5:1994(E)

## 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.

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 3914-5 was prepared by Technical Committee ISO/TC 72, *Textile machinery and allied machinery and accessories*, Subcommittee SC 2, *Winding and preparatory machinery for fabric manufacture*.

ISO 3914 consists of the following parts, under the general title *Textile machinery and accessories — Cylindrical tubes*:

- Part 1: *Recommended main dimensions*
- Part 2: *Dimensions, tolerances and designation of tubes for open-end spinning machines*
- Part 3: *Dimensions, tolerances and designation of tubes for tape yarns*
- Part 4: *Dimensions, tolerances and designation of tubes for textured yarns*
- Part 5: *Dimensions, tolerances and designation of tubes for continuous spin-drawn synthetic filament yarns*
- Part 6: *Dimensions, tolerances and designation of tubes for cross-wound packages in winding and twisting*

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— *Part 7: Dimensions, tolerances and designation of perforated tubes for cheese dyeing*

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# Textile machinery and accessories — Cylindrical tubes —

## Part 5:

Dimensions, tolerances and designation of tubes for continuous spin-drawn synthetic filament yarns

### 1 Scope

This part of ISO 3914 specifies the main dimensions, tolerances and designation of cylindrical tubes for continuous spin-drawn synthetic filament yarns. This would include the spin-draw-texturizing process additionally. Furthermore, directives are given for the characteristics of tubes and for the control of the inner diameter and length of the tube.

### 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 3914. At the time of publication, the

edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 3914 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3914-1:1994, *Textile machinery and accessories — Cylindrical tubes — Part 1: Recommended main dimensions*.

### 3 Dimensions and tolerances

See figure 1 and table 1.

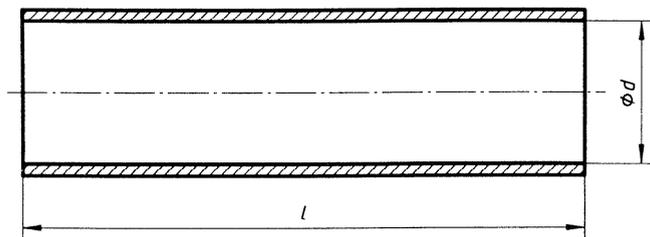


Figure 1 — Cylindrical tube

Table 1 — Inner diameters and lengths

Dimensions in millimetres

$d$		$l$	
nom.	tol. <sup>1)</sup>	nom.	tol. <sup>2)</sup>
75	$\pm 0,2$	150 290 300	$\pm 1$
94 <sup>3)</sup>	$\pm 0,2$	150 <sup>3)</sup> 225 290 <sup>3)</sup> 300 <sup>3)</sup>	$\pm 1$
125	$\pm 0,3$	150 225 290 300	$\pm 1$
143 <sup>3)</sup>	$\pm 0,4$	150 <sup>3)</sup> 225 290 <sup>3)</sup> 300 <sup>3)</sup>	$\pm 1$

1) In certain cases the tolerance on the inner diameter,  $d$ , can diverge from the values given. This depends on the field of application and should therefore be agreed upon between the parties concerned.

2) Smaller tolerances of the lengths are to be agreed between customer and supplier.

3) Principal dimensions as recommended in ISO 3914-1.

#### 4 Characteristics

The following details shall be specified by the manufacturer:

- material of the tube (paper or plastic);
- nature of yarn to be wound;
- thickness of tube wall (corresponding to the nature of the yarn to be wound);
- treatment (impregnated or non-impregnated);
- groove for transfer tail.

#### 5 Control of the inner diameter and length of the tube

To check the inner diameter of the tube, a GO/NOT GO type gauge shall be used.

To verify that the length of the tube is within the specified tolerance, a suitable gauge for checking lengths, for example a slide-gauge, shall be used.

#### 6 Designation

The designation of a cylindrical tube for continuous spin-drawn synthetic filament yarns shall include the following information, in the order given:

- "Cylindrical tube";
- a reference to this part of ISO 3914, i.e. ISO 3914-5;
- the inner diameter,  $d$ , in millimetres;
- the length,  $l$ , in millimetres.

#### EXAMPLE

A cylindrical tube for continuous spin-drawn synthetic filament yarns with an inner diameter  $d$  of 94 mm and length  $l$  of 150 mm shall be designated as follows:

**Cylindrical tube ISO 3914-5 - 94 × 150**