
INTERNATIONAL STANDARD



5237

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

**Textile machinery and accessories – Cones for yarn winding
(cross wound) – Half angle of the cone 5° 57'**

Matériel pour l'industrie textile – Cônes pour bobinage croisé – Demi-angle du cône 5° 57'

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Descriptors : textile machinery, winders, cones, winding, gauges, specifications, dimensions, dimensional tolerances.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5237 was developed by Technical Committee ISO/TC 72, *Textile machinery and accessories*, and was circulated to the member bodies in December 1976.

It has been approved by the member bodies of the following countries :

Chile	Italy	South Africa, Rep. of
Czechoslovakia	Korea, Rep. of	Spain
France	Mexico	Switzerland
Germany	Netherlands	United Kingdom
India	Poland	U.S.S.R.
Ireland	Romania	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Belgium
Turkey

Textile machinery and accessories – Cones for yarn winding (cross wound) – Half angle of the cone 5° 57'

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1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions and the tolerances of cones for yarn winding (cross wound) having a half angle of the cone of 5° 57', as well as the dimensions and tolerances of the gauges for measuring the cones.

b) treatment of surface;

c) wall thickness (corresponding to the nature of yarn);

d) details of tailing groove and notch for tail (if required).

2 DIMENSIONS AND TOLERANCES

See the figures and tables on page 2.

Dimensions which are not specified are left to the discretion of the manufacturer.

The width of wound yarn shall not exceed $L - 25$ mm.

The deviations from the nominal value 5° 57' of the half angle of cone are limited by the tolerances for D , D_1 and L as indicated in table 1. They do not influence the practical use of the cones during winding and during further processes.

3 MATERIAL

The material may be untreated, impregnated or lacquered paper or suitable plastic.

The following details shall be specified :

a) nature of yarn to be wound;

4 USE OF THE GAUGE

The inner dimensions of the cone are in accordance with this International Standard if the edge of the larger end of the cone, after it has been placed loosely on the gauge and then pressed home by hand, is between the tolerance marks.

To check the smaller diameter of an open-ended cone additionally, it shall be placed with the smaller end first on the gauge. The edge of the smaller end of the cone must then be between the tolerance marks on the corresponding end of the gauge.

5 CHECKING OF THE LENGTH OF THE CONE

To check the tolerances of the length of the cone, a suitable gauge for checking lengths, for example a slide-gauge, has to be used. The conical gauges shown cannot be used for this purpose.

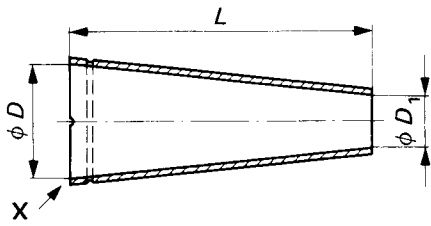


FIGURE 1a) – Open-ended cone

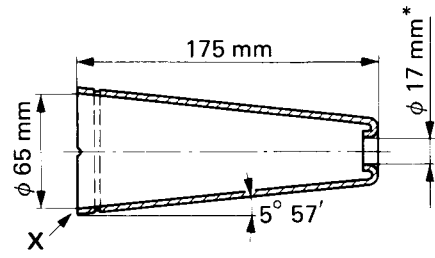


FIGURE 1b) – Cone with rolled-in top

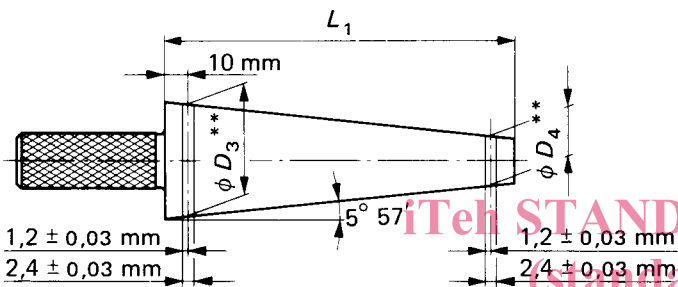
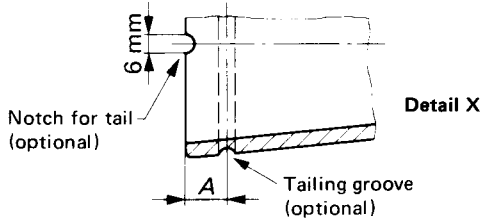


FIGURE 2a) – Gauge for open-ended cones

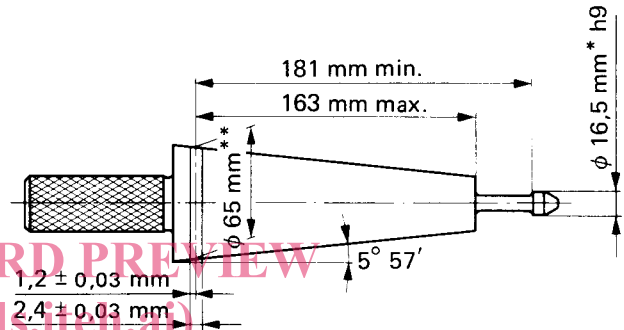


FIGURE 2b) – Gauge for cones with rolled-in top

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TABLE 1 – Cones

Values in millimetres

D ±0,25	L	Admissible deviations	D ₁ ± 0,25	A
65	175	29		
68	170	33		
80	230	± 2	32	10
104	290	± 2,5	44	
	340		33	

TABLE 2 – Gauges

Values in millimetres

D ₃ **	D ₄ **	L ₁
63	33	165
65	29	195
68	33	190
80	32	250
104	44	310
	33	360

* In certain cases, especially for automatic winding, these dimensions have to be agreed upon between the interested parties in relation to the wall thickness.

** The tolerances of the cone diameters of the gauge, measured at any distance from the ends, shall be j_s6 (see ISO/R 286, ISO System of limits and fits – Part 1 : General, tolerances and deviations, page 23).