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**Textile machinery and accessories —  
Yarn feeders and yarn control for knitting  
machines —**

Part 2:

**Connecting dimensions for yarn feeders  
and yarn control devices**

*Matériel pour l'industrie textile — Fournisseurs de fil et dispositifs de  
surveillance pour machines à tricoter —*

*Partie 2: Dimensions de raccordement des fournisseurs de fil et des  
dispositifs de surveillance*



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## 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.

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 13990-2 was prepared by Technical Committee ISO/TC 72, *Textile machinery and machinery for dry-cleaning and industrial laundering*, Subcommittee SC 3, *Machinery for fabric manufacturing including preparatory machinery and accessories*.

This first edition of ISO 13990-2 together with ISO 13990-1 and ISO 13990-3, cancels and replaces ISO 13990:1996, of which it constitutes a technical revision.

ISO 13990 consists of the following parts, under the general title *Textile machinery and accessories — Yarn feeders and yarn control for knitting machines*:

- *Part 1: Vocabulary*
- *Part 2: Connecting dimensions for yarn feeders and yarn control devices*
- *Part 3: Dimensions for connecting and interconnection cables*



# Textile machinery and accessories — Yarn feeders and yarn control for knitting machines —

## Part 2: Connecting dimensions for yarn feeders and yarn control devices

### 1 Scope

This part of ISO 13990 specifies the connecting dimensions for the mounting and electrical installation of yarn feeders and yarn control devices, as defined in ISO 13990-1, for knitting machines.

### 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 2768-1:1989, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 13990-1, *Textile machinery and accessories — Yarn feeders and yarn control for knitting machines — Part 1: Vocabulary*

ISO 13990-3, *Textile machinery and accessories — Yarn feeders and yarn control for knitting machines — Part 3: Dimensions for connecting and interconnection cables*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13990-1 apply.

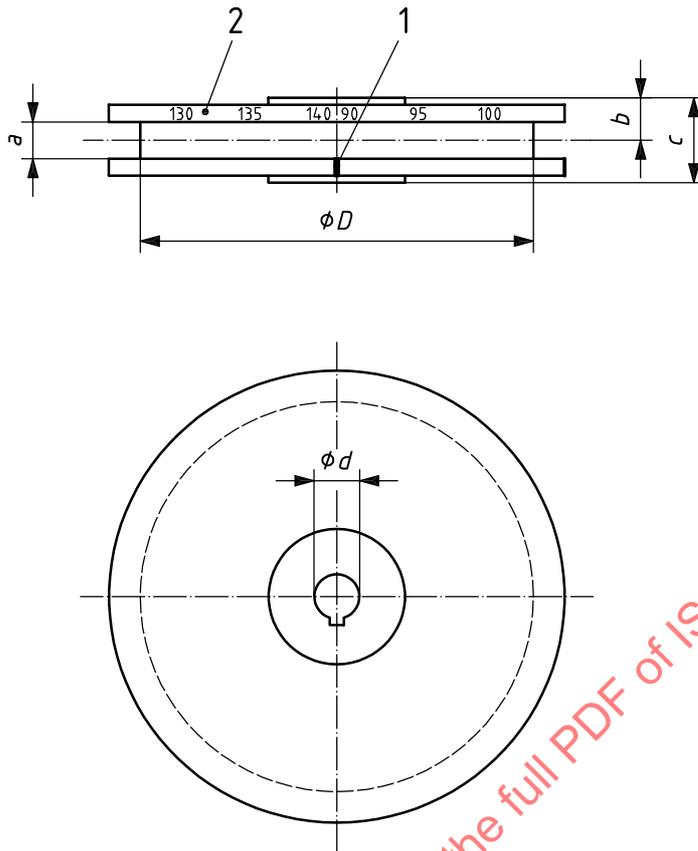
### 4 Connecting dimensions

#### 4.1 Connecting dimensions for yarn feeders

The connecting dimensions shall be in accordance with Figures 1 and 2 and Table 1.

Unless otherwise stated, tolerance class c according to ISO 2768-1:1989 shall be applied.

The yarn feeders shown in Figure 2 need not be in accordance with the illustration; only the dimensions given in Table 1 are to be observed.



- Key**
- 1 setting mark
  - 2 setting scale

Figure 1 — Connecting dimensions adjustable pulley

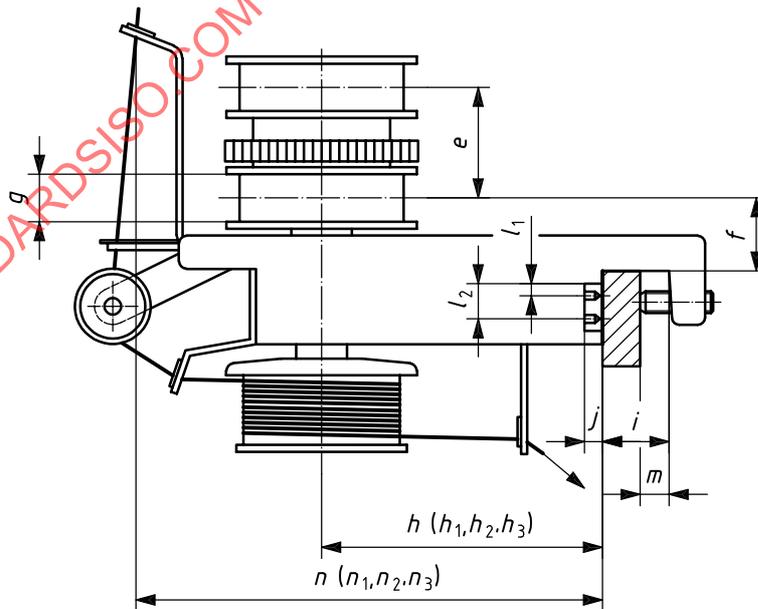


Figure 2 — Connecting dimensions for yarn feeder

Table 1 — Connecting dimensions

Symbol	Description	Dimension mm
<i>a</i>	Working width of belt on adjustable pulley	(18) 20
<i>b</i>	Distance between centre of working surface and upper edge of fixed flange	(18) 19
<i>c</i>	Total width of adjustable pulley	45
<i>d</i>	Bore diameter of adjustable pulley	17H7
<i>e</i>	Distance of driving pulleys	30
<i>f</i>	Distance between middle of lower driving pulley and the upper edge of the yarn feeder support	21
<i>g</i>	Working width of the pulley belt	13
<i>h</i>	Distance between contact surface of yarn feeder support and axis of driving pulley	—
( <i>h</i> <sub>1</sub> )	Capstan feeder	75
( <i>h</i> <sub>2</sub> )	Unrolling feeder	49
( <i>h</i> <sub>3</sub> )	Combined feeder	> 98
<i>i</i>	Clamping width of mounting	≤ 20
<i>j, l</i> <sub>1</sub> , <i>l</i> <sub>2</sub>	Dimensions for connecting cable	<i>a</i>
<i>m</i>	Mounting distance of yarn feeder	≥ <i>j</i>
<i>n</i>	Distance between contact surface of yarn feeder support and centre yarn come-in	—
( <i>n</i> <sub>1</sub> )	Capstan feeder	≤ 123
( <i>n</i> <sub>2</sub> )	Unrolling feeder	—
( <i>n</i> <sub>3</sub> )	Combined feeder	≤ 180
<i>D</i>	Adjustable diameter of driving pulley	≥ 90 ≤ 280
Dimensions in brackets should be avoided in new designs.		
<sup>a</sup> See ISO 13990-3.		

## 4.2 Connecting dimensions for yarn control and yarn feeding devices

The connecting dimensions for interconnection cable shall be in accordance with Table 2 for yarn control and feeding devices. An example is presented in Figure 3.

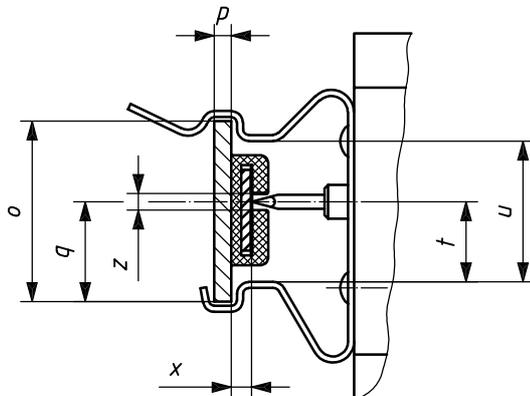


Figure 3 — Example application with interconnection cable

Table 2 — Connecting dimensions for interconnection cable

Symbol	Description	Dimension mm
<i>o</i>	Width of mounting rod	25 h11
<i>p</i>	Height of mounting rod	3 h11
<i>q</i>	Distance between lower edge of mounting rod and centre of contact surface	14 ± 0,5
<i>t</i>	Distance between contact pin and clip	9,5 ± 0,5
<i>u</i>	Opening width of clip	17
<i>x</i>	Distance between contact ribbon surface and contact surface	1,5 to 3
<i>z</i>	Width of contact area	< 2,5