

**Toote tehniline dokumentatsioon. Vedrud. Osa
1: Lihtsustatud kujutamine**

Technical product documentation - Springs - Part 1:
Simplified representation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 2162-1:1999 sisaldab Euroopa standardi EN ISO 2162-1:1996 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 12.12.1999 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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This standard is ratified with the order of Estonian Centre for Standardisation dated 12.12.1999 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

ICS 01.100.20, 21.160

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EUROPEAN STANDARD

EN ISO 2162-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 1996

ICS 01.100.20; 20.160

Descriptors: see ISO document

English version

**Technical product documentation - Springs - Part
1: Simplified representation (ISO 2162-1:1993)**

Documentation technique de produits - Ressorts
- Partie 1: Représentation simplifiée
(ISO 2162-1:1993)

Technische Produktdokumentation - Federn - Teil
1: Vereinfachte Darstellung (ISO 2162-1:1993)

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

The text of the International Standard from Technical Committee ISO/TC 10 "Technical drawings, product definition and related documentation" of the International Organization for Standardization (ISO) has been taken over as an European Standard by the Technical Board of CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 1997, and conflicting national standards shall be withdrawn at the latest by January 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 2162-1:1993 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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Annex ZA (normative)
Normative references to international publications
with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 2162-2	1993	Technical product documentation - Springs - Part 2: Presentation of data for cylindrical helical compression springs	EN ISO 2162-2	1996

INTERNATIONAL
STANDARD

ISO
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**Technical product documentation —
Springs —**

**Part 1:
Simplified representation**

*Documentation technique de produits — Ressorts —
Partie 1: Représentation simplifiée*



Reference number
ISO 2162-1:1993(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 2162-1 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*, Sub-Committee SC 6, *Mechanical engineering documentation*.

This first edition of ISO 2162-1 cancels and replaces ISO 2162-1:1973, of which it constitutes an extension and technical revision.

ISO 2162 consists of the following parts, under the general title *Technical product documentation — Springs*:

- *Part 1: Simplified representation*
- *Part 2: Presentation of data for cylindrical helical compression springs*
- *Part 3: Vocabulary*

Technical product documentation — Springs —

Part 1: Simplified representation

1 Scope

This part of ISO 2162 gives rules for the simplified representation of compression, extension, torsion, disc, spiral and leaf springs on technical drawings.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 2162. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2162 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2162-2:1993, *Technical product documentation — Springs — Part 2: Presentation of data for cylindrical helical compression springs*.

ISO 5261:1981, *Technical drawings for structural metal work*.

3 General

In simplified representations, springs are represented as follows.

- Coiled wire springs: by a line following the axis of the spring wire.

- Other types of springs: by lines showing the characteristics of the respective type of springs and their elements.



The representations shown are examples only.

4 Helical compression springs

The following requirements shall be applied for the indication of the geometrical characteristics of wire-made springs on a simplified representation.

a) Cross-section of the material

Cylindrical: the appropriate graphical symbol in accordance with ISO 5261 (\emptyset) need not be indicated.

Other than cylindrical: the appropriate graphical symbol in accordance with ISO 5261 shall be indicated (e.g. , ).

b) Direction of helix

Right-hand: assumed as normal and the designation RH need not be indicated.

Left-hand: exceptional and the designation LH¹⁾ shall be indicated.

c) Shape of ends

Ground: no indication is necessary.

Other than ground: the type shall be specified on the drawing, with dimensions if necessary (see ISO 2162-2).

1) In accordance with the rules given for the indication of left-hand screw threads (see ISO 5864:1978, *ISO inch screw threads — Allowances and tolerances*, clause 11).