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STN	**Skrutkovité valcové pružiny vyrábané z drôtu a tyčí kruhového prierezu. Výpočet a konštrukcia. Časť 3: Torzné pružiny.**	**STN EN 13906-3** 02 6031

Cylindrical helical springs made from round wire and bar - Calculation and design - Part 3: Torsion springs

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Obsahuje: EN 13906-3:2014

Oznámením tejto normy sa ruší
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EUROPEAN STANDARD
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EN 13906-3

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Supersedes EN 13906-3:2001

English Version

Cylindrical helical springs made from round wire and bar - Calculation and design - Part 3: Torsion springs

Ressorts hélicoïdaux cylindriques fabriqués à partir de fils ronds et de barres - Calcul et conception - Partie 3: Ressorts de torsion

Zylindrische Schraubenfedern aus runden Drähten und Stäben - Berechnung und Konstruktion - Teil 3: Drehfedern

This European Standard was approved by CEN on 10 November 2013.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 13906-3:2014) has been prepared by Technical Committee CEN/TC 407 “Project Committee - Cylindrical helical springs made from round wire and bar - Calculation and design”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13906-3:2001.

This European Standard has been prepared by the initiative of the Association of the European Spring Federation ESF.

This European Standard constitutes a revision of EN 13906-3:2001 for which it has been technically reviewed. The main modifications are listed below:

— updating of the normative references;

— technical corrections.

EN 13906 consists of the following parts, under the general title *Cylindrical helical springs made from round wire and bar — Calculation and design*:

— *Part 1: Compression springs*;

— *Part 2: Extension springs*;

— *Part 3: Torsion springs*.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the calculation and design of cold and hot coiled cylindrical helical torsion springs with a linear characteristic, made from round wire and bar of constant diameter with values according to Table 1.

Table 1

Characteristic	Cold coiled torsion spring	Hot coiled torsion spring[a]
Wire or bar diameter	$d \leq 20$ mm	$d \geq 10$ mm
Number of active coils	$n \geq 2$	$n \geq 2$
Spring index	$4 \leq w \leq 20$	$4 \leq w \leq 12$
[a] The user of this European Standard shall pay attention to the design of hot coiled springs, because there can be differences between the design and a real test.		

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10089, *Hot-rolled steels for quenched and tempered springs - Technical delivery conditions*

EN 10270-1, *Steel wire for mechanical springs - Part 1: Patented cold drawn unalloyed spring steel wire*

EN 10270-2, *Steel wire for mechanical springs - Part 2: Oil hardened and tempered spring steel wire*

EN 10270-3, *Steel wire for mechanical springs - Part 3: Stainless spring steel wire*

EN 12166, *Copper and copper alloys - Wire for general purposes*

EN ISO 26909:2010, *Springs - Vocabulary (ISO 26909:2009)*

ISO 26910-1, *Springs - Shot peening - Part 1: General procedures*