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En cumplimiento del punto 11.2.6.4 de las Reglas Internas de CEN/CENELEC Parte 2, se ha otorgado el rango de norma española al Documento Europeo siguiente:

| <b>Documento<br/>Europeo</b> | <b>Título</b>   | <b>Fecha de<br/>Disponibilidad</b> |
|------------------------------|---|------------------------------------|
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 13906-1

July 2013

ICS 21.160

Supersedes EN 13906-1:2002

English Version

Cylindrical helical springs made from round wire and bar -  
Calculation and design - Part 1 : Compression springs

Ressorts hélicoïdaux cylindriques fabriqués à partir de fils  
ronds et de barres - Calcul et conception - Partie 1:  
Ressorts de compression

Zylindrische Schraubenfedern aus runden Drähten und  
Stäben - Berechnung und Konstruktion - Teil 1:  
Druckfedern

This European Standard was approved by CEN on 30 May 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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## Foreword

This document (EN 13906-1:2013) 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 January 2014, and conflicting national standards shall be withdrawn at the latest by January 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 13906-1:2002.

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 13906-1:2002 for which it has been technically revised. 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.

## Introduction

The revision of EN 13906 series have been initiated by the Association of the European Spring Federation – ESF – in order to correct the technical errors which are in the published standards and to improve them according to the state of the art. However, the revision of the figures is not take part of this work due to the lack of shared (mutual) data to update them. Nevertheless, the customers can have updated data from the manufacturers.