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Disc springs - Quality specifications - Dimensions

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

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 16983

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English Version

Disc springs - Quality specifications - Dimensions

Rondelles ressorts - Spécification de qualité -
Dimensions

Tellerfedern - Qualitätsanforderungen - Maße

This European Standard was approved by CEN on 15 August 2016.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 16983:2016) has been prepared by Technical Committee CEN/TC 407 “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of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

This European Standard has been prepared by the initiative of the Association of the European Spring Federation ESF and is based on the German Standard DIN 2093 “Disc springs – Quality specifications – Dimensions”, which is known and used in many European countries.

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

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1 Scope

This standard specifies the set of requirements that ensure the correct functioning of disc spring. These include requirements relating to the materials and manufacturing process, tolerances on dimensions and spring forces, and also the permissible relaxation and fatigue life of such springs as a function of stress.

All requirements specified here are minimum requirements.

This standard covers three dimensional series of disc springs.

NOTE In this standard, disc springs are divided into three groups and three dimensional series. Classification into groups is based on the manufacturing process, which is a function of the material thickness. The assignment of disc springs to dimensional series is governed by the h_0/t ratio.

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 1654, *Copper and copper alloys - Strip for springs and connectors*

EN 10083 (all parts), *Steels for quenching and tempering*

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

EN 10132-4, *Cold rolled narrow steel strip for heat treatment - Technical delivery conditions - Part 4: Spring steels and other applications*

EN 10151, *Stainless steel strip for springs - Technical delivery conditions*

EN ISO 3269, *Fasteners - Acceptance inspection (ISO 3269)*

EN ISO 6507 (all parts), *Metallic materials - Vickers hardness test (ISO 6507)*

EN ISO 6508 (all parts), *Metallic materials - Rockwell hardness test (ISO 6508)*

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