



SLOVENSKI STANDARD
SIST-TS CEN ISO/TS 12181-1:2008
01-april-2008

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Geometrical product specifications (GPS) - Roundness - Part 1: Vocabulary and parameters of roundness (ISO/TS 12181-1:2003)

Geometrische Produktspezifikation (GPS) - Rundheit - Teil 1: Begriffe und Kenngrößen der Rundheit (ISO/TS 12181-1:2003)

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Spécification géométrique des produits (GPS) - Circularité - Partie 1: Vocabulaire et paramètres de circularité (ISO/TS 12181-1:2003)

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ICS 17.040.20; 01.040.17

English Version

Geometrical product specifications (GPS) - Roundness - Part 1:
Vocabulary and parameters of roundness (ISO/TS 12181-
1:2003)

Spécification géométrique des produits (GPS) - Circularité -
Partie 1: Vocabulaire et paramètres de circularité (ISO/TS
12181-1:2003)

Geometrische Produktspezifikation (GPS) - Rundheit - Teil
1: Begriffe und Kenngrößen der Rundheit (ISO/TS 12181-
1:2003)

This Technical Specification (CEN/TS) was approved by CEN on 8 October 2007 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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Foreword

The text of ISO/TS 12181-1:2003 has been prepared by Technical Committee ISO/TC 213 "Dimensional and geometrical product specifications and verification" of the International Organization for Standardization (ISO) and has been taken over as CEN ISO/TS 12181-1:2007 by Technical Committee CEN/TC 290 "Dimensional and geometrical product specification and verification" the secretariat of which is held by AFNOR.

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.

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

Endorsement notice

The text of ISO/TS 12181-1:2003 has been approved by CEN as a CEN ISO/TS 12181-1:2007 without any modification.

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**Geometrical Product Specifications
(GPS) — Roundness —**

**Part 1:
Vocabulary and parameters of roundness**

*Spécification géométrique des produits (GPS) — Circularité —
Partie 1: Vocabulaire et paramètres de circularité*
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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.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

- an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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/TS 12181-1 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

This first edition of ISO/TS 12181-1 cancels and replaces ISO 6318:1985, of which it constitutes a technical revision.

ISO/TS 12181 consists of the following parts, under the general title *Geometrical Product Specifications (GPS) — Roundness*:

- *Part 1: Vocabulary and parameters of roundness*
- *Part 2: Specification operators*

Introduction

This part of ISO/TS 12181 is a geometrical product specification (GPS) Technical Specification and is to be regarded as a general GPS document (see ISO/TR 14638). It influences chain link 2 of the chain of standards on form of a surface (independent of a datum).

For more detailed information on the relation of this part of ISO/TS 12181 to other standards and the GPS matrix model, see Annex C.

This part of ISO/TS 12181 defines terms and concepts necessary for defining the specification operators according to ISO/TS 17450-2 for roundness of integral features.

Extracting data will always involve applying a certain filtering process. An additional filtering of the extracted data may or may not be applied. This additional filter can be a mean line filter (Gaussian, spline, wavelet, etc.) or a non-linear filter (e.g. morphological filter). The type of filtering will influence the actual specification operator and, consequently, the actual definition of roundness. Therefore, the type of filtering needs to be stated unambiguously.

This part of ISO/TS 12181 is not intended to disallow any means of measuring roundness.

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