

**Geometrical product specifications (GPS) - Cylindricity -
Part 1: Vocabulary and parameters of cylindrical form
(ISO 12180-1:2011)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 12180-1:2011 sisaldab Euroopa standardi EN ISO 12180-1:2011 ingliskeelset teksti.

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English Version

Geometrical product specifications (GPS) - Cylindricity - Part 1:
Vocabulary and parameters of cylindrical form (ISO 12180-
1:2011)

Spécification géométrique des produits (GPS) - Cylindricité
- Partie 1: Vocabulaire et paramètres de cylindricité (ISO
12180-1:2011)

Geometrische Produktspezifikation (GPS) - Zylindrizität -
Teil 1: Begriffe und Kenngrößen der Zylinderform (ISO
12180-1:2011)

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Foreword

This document (EN ISO 12180-1:2011) has been prepared by Technical Committee ISO/TC 213 "Dimensional and geometrical product specifications and verification" in collaboration with Technical Committee CEN/TC 290 "Dimensional and geometrical product specification and verification" 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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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Endorsement notice

The text of ISO 12180-1:2011 has been approved by CEN as a EN ISO 12180-1:2011 without any modification.

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Introduction

This part of ISO 12180 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences chain link 2 of the chain of standards on form of a surface (independent of a datum).

The ISO/GPS Masterplan given in ISO/TR 14638 gives an overview of the ISO/GPS system of which this part of ISO 12180 is a part. The fundamental rules of ISO/GPS given in ISO 8015 apply to this part of ISO 12180 and the default decision rules given in ISO 14253-1 apply to specifications made in accordance with this part of ISO 12180, unless otherwise indicated.

For more detailed information on the relationship of this part of ISO 12180 to other standards and the GPS matrix model, see Annex D.

This part of ISO 12180 defines terms and concepts necessary for defining the specification operators according to ISO 17450-2 for cylindricity of integral features.

Extracting data always involves applying a certain filtering process. An additional filtering of the extracted data might or might 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 influences the definition of cylindricity and the specification operators and, therefore, needs to be stated unambiguously.

This part of ISO 12180 is not intended to disallow any means of measuring cylindricity.

Geometrical product specifications (GPS) — Cylindricity —

Part 1:

Vocabulary and parameters of cylindrical form

1 Scope

This part of ISO 12180 defines the terms and concepts related to cylindricity of individual complete integral features only.

2 Normative references

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

ISO 11562:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Metrological characteristics of phase correct filters*

ISO 12181-1:2011, *Geometrical product specifications (GPS) — Roundness — Part 1: Vocabulary and parameters of roundness*

ISO 12780-1:2011, *Geometrical product specifications (GPS) — Straightness — Part 1: Vocabulary and parameters of straightness*

ISO 14660-1:1999, *Geometrical Product Specifications (GPS) — Geometrical features — Part 1: General terms and definitions*

ISO 14660-2:1999, *Geometrical Product Specifications (GPS) — Geometrical features — Part 2: Extracted median line of a cylinder and a cone, extracted median surface, local size of an extracted feature*

ISO 17450-1:—¹⁾, *Geometrical product specifications (GPS) — General concepts — Part 1: Model for geometrical specification and verification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11562, ISO 12181-1, ISO 12780-1, ISO 14660-1, ISO 14660-2, ISO 17450-1 and the following apply.

1) To be published. (Revision of ISO/TS 17450-1:2005)