Geometrical product specifications (GPS) - Wedges - Part 1: Series of angles and slopes (ISO 2538-1:2014)

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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 2538-1:2014 sisaldab Euroopa standardi EN ISO 2538-1:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 2538-1:2014 consists of the English text of the European standard EN ISO 2538-1:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.09.2014.	Date of Availability of the European standard is 03.09.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Geometrical product specifications (GPS) - Wedges - Part 1: Series of angles and slopes (ISO 2538-1:2014)

Spécification géométrique des produits (GPS) - Coins - Partie 1: Séries d'angles et d'inclinaisons (ISO 2538-1:2014)

Geometrische Produktspezifikation (GPS) - Keile - Teil 1: Reihen von Winkeln und Neigungen (ISO 2538-1:2014)

This European Standard was approved by CEN on 9 August 2014.

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Foreword

This document (EN ISO 2538-1:2014) 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of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

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.

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Endorsement notice

The text of ISO 2538-1:2014 has been approved by CEN as EN ISO 2538-1:2014 without any modification.

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Introduction

This part of ISO 2538 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences chain links 1 and 2 of the chain of standards on angle in the GPS matrix.

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

For more detailed information on the relation of this part of ISO 2538 to other standards and to the GPS matrix model, see Annex A.

Geometrical product specifications (GPS) — Wedges —

Part 1:
Series of angles and slopes

1 Scope

This International Standard specifies terms and definitions for wedges, three series of wedge angles from 120° to 0° 30′ and a series of wedge slopes from 1:10 to 1:500, for general mechanical engineering purposes.

2 Terms and definitions

For the purposes of this document, the following definitions apply.

2.1
wedge
pair of intersecting planes

Note 1 to entry: A wedge is a feature of size defined by an angular size.

Note 2 to entry: See Figure 1.

2.2
wedge angle
β
angular size of the wedge defined in a plane perpendicular to the wedge edge

Note 1 to entry: See Figure 1.

2.3
wedge slope
S
ratio of the difference between the heights H and h in two determined cross-sections to the signed distance L between these cross-sections

$$S = (H - h) / L = \tan\beta$$

Note 1 to entry: L is positive for angles < 90° and negative for angles > 90°.

2.4
rate of wedge
C
2 × the tangent of half the wedge angle

$$C = 2\tan\frac{\beta}{2}$$

2.5
wedge edge
straight line established by the intersection of the wedge planes

Note 1 to entry: See Figure 1.