

<b>STN</b>	<b>Geometrické špecifikácie výrobkov (GPS) Filtrácia Časť 21: Lineárne profilové filtre: Gaussove filtre (ISO 16610-21: 2025)</b>	<b>STN EN ISO 16610-21</b>  01 4453
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Geometrical product specifications (GPS) - Filtration - Part 21: Linear profile filters: Gaussian filters (ISO 16610-21:2025)

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

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English Version

## Geometrical product specifications (GPS) - Filtration - Part 21: Linear profile filters: Gaussian filters (ISO 16610- 21:2025)

Spécification géométrique des produits (GPS) - Filtrage  
- Partie 21: Filtres de profil linéaires: Filtres gaussiens  
(ISO 16610-21:2025)

Geometrische Produktspezifikation (GPS) - Filterung -  
Teil 21: Lineare Profilfilter: Gauß-Filter (ISO 16610-  
21:2025)

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**EN ISO 16610-21:2025 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (EN ISO 16610-21:2025) 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of an identical text or by endorsement, at the latest by August 2025, and conflicting national standards shall be withdrawn at the latest by August 2025.

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## **Endorsement notice**

The text of ISO 16610-21:2025 has been approved by CEN as EN ISO 16610-21:2025 without any modification.



# International Standard

**ISO 16610-21**

## **Geometrical product specifications (GPS) — Filtration —**

### **Part 21: Linear profile filters: Gaussian filters**

*Spécification géométrique des produits (GPS) — Filtrage —  
Partie 21: Filtres de profil linéaires: Filtres gaussiens*

**Second edition  
2025-01**

## ISO 16610-21:2025(en)



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**ISO 16610-21:2025(en)****Contents**

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Characteristics of the Gaussian filter for unbounded open profiles</b> .....	<b>3</b>
4.1 General.....	3
4.2 Gaussian weighting function.....	3
4.3 Filter equations.....	4
4.3.1 Determination of the large-scale lateral component.....	4
4.3.2 Determination of the small-scale lateral component.....	5
4.4 Transmission characteristics.....	5
4.4.1 Transmission characteristic for the large-scale lateral component.....	5
4.4.2 Transmission characteristic for the small-scale lateral component.....	6
<b>5 Characteristics of the Gaussian filter for closed profiles</b> .....	<b>7</b>
5.1 General.....	7
5.2 Gaussian weighting function.....	7
5.3 Filter equations.....	8
5.3.1 Determination of the large-scale lateral component.....	8
5.3.2 Determination of the small-scale lateral component.....	9
5.4 Transmission characteristics.....	9
5.4.1 Transmission characteristic for the large-scale lateral component.....	9
5.4.2 Transmission characteristic for the small-scale lateral component.....	10
<b>6 Series of nesting index values</b> .....	<b>11</b>
<b>7 Filter designation</b> .....	<b>11</b>
<b>Annex A (informative) Implementation details of the Gaussian filter for open profiles</b> .....	<b>12</b>
<b>Annex B (informative) Implementation details of the Gaussian filter for closed profiles</b> .....	<b>23</b>
<b>Annex C (informative) Relationship to the filtration matrix model</b> .....	<b>27</b>
<b>Annex D (informative) Relationship to the GPS matrix model</b> .....	<b>28</b>
<b>Bibliography</b> .....	<b>29</b>

**ISO 16610-21:2025(en)****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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 290, *Dimensional and geometrical product specification and verification*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16610-21:2011), which has been technically revised.

The main changes are as follows:

- providing implementation details for open and closed profiles,
- providing the treatment of end effects.

A list of all parts in the ISO 16610 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

**ISO 16610-21:2025(en)****Introduction**

This document is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO 14638). It influences chain links C and E in the GPS matrix structure.

The ISO GPS matrix model given in ISO 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 the specifications made in accordance with this document, unless otherwise indicated.

For more information on the relationship of this document to the filtration matrix model, see [Annex C](#).

For more detailed information on the relation of this document to other standards and the GPS matrix model, see [Annex D](#).

This document develops the terminology and concepts of linear Gaussian filters for surface profiles. Linear Gaussian filters for surface profiles have a transmission of 50 % for sinusoidal surface profiles with wavelengths equal to the cut-off wavelength. It separates the large- and small-scale lateral components of surface profiles in such a way that the surface profiles can be reconstructed without altering.

# Geometrical product specifications (GPS) — Filtration —

## Part 21: Linear profile filters: Gaussian filters

### 1 Scope

This document specifies linear Gaussian filters for the filtration of surface profiles. It defines, in particular, how to separate large- and small-scale lateral components of surface profiles.

The concept presented for closed profiles are applicable to the case of roundness filtration. Where appropriate, these concept can be extended to generalized closed profiles, especially for surface profiles with re-entrant features.

Implementation details are given in [Annex A](#) for open profiles and [Annex B](#) for closed profiles.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 16610-1, *Geometrical product specifications (GPS) — Filtration — Part 1: Overview and basic concepts*

ISO 16610-20, *Geometrical product specifications (GPS) — Filtration — Part 20: Linear profile filters: Basic concepts*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**