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Non-destructive testing - Ultrasonic testing - Characterization and sizing of discontinuities (ISO 16827:2025)

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/25

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EUROPEAN STANDARD

**EN ISO 16827**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 16827:2014

English Version

**Non-destructive testing - Ultrasonic testing -  
Characterization and sizing of discontinuities (ISO  
16827:2025)**

Essais non destructifs - Contrôle par ultrasons -  
Caractérisation et dimensionnement des discontinuités  
(ISO 16827:2025)

Zerstörungsfreie Prüfung - Ultraschallprüfung -  
Beschreibung und Größenbestimmung von  
Inhomogenitäten (ISO 16827:2025)

This European Standard was approved by CEN on 7 June 2025.

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**EN ISO 16827:2025 (E)**

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

## **European foreword**

This document (EN ISO 16827:2025) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 "Non-destructive testing" 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of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

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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The text of ISO 16827:2025 has been approved by CEN as EN ISO 16827:2025 without any modification.



# International Standard

**ISO 16827**

## **Non-destructive testing — Ultrasonic testing — Characterization and sizing of discontinuities**

*Essais non destructifs — Contrôle par ultrasons —  
Caractérisation et dimensionnement des discontinuités*

**Second edition  
2025-06**

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## ISO 16827:2025(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 Principles of characterization of discontinuities</b> .....	<b>1</b>
4.1 General.....	1
4.2 Requirements for surface condition.....	2
<b>5 Pulse-echo techniques</b> .....	<b>2</b>
5.1 General.....	2
5.2 Location of discontinuity.....	2
5.3 Orientation of discontinuity.....	3
5.4 Assessment of multiple indications.....	3
5.5 Shape of discontinuity.....	4
5.5.1 Simple classification.....	4
5.5.2 Detailed classification.....	4
5.6 Maximum echo height of indication.....	5
5.7 Size of discontinuity.....	5
5.7.1 General.....	5
5.7.2 Maximum echo height techniques.....	5
5.7.3 Probe movement sizing techniques.....	6
5.7.4 Selection of sizing techniques.....	7
5.7.5 Sizing techniques with focusing probes.....	8
5.7.6 Use of mathematical algorithms for sizing.....	8
5.7.7 Special sizing techniques.....	8
<b>6 Through-transmission technique</b> .....	<b>9</b>
6.1 General.....	9
6.2 Location of discontinuity.....	9
6.3 Evaluation of multiple discontinuities.....	9
6.4 Reduction of signal amplitude.....	10
6.5 Size of discontinuity.....	10
<b>Annex A (normative) Analysis of multiple indications</b> .....	<b>12</b>
<b>Annex B (normative) Techniques for the classification of discontinuity shape</b> .....	<b>14</b>
<b>Annex C (normative) Sizing technique using the maximum echo height</b> .....	<b>23</b>
<b>Annex D (normative) Sizing techniques using probe movement</b> .....	<b>25</b>
<b>Annex E (informative) Iterative sizing technique</b> .....	<b>37</b>
<b>Annex F (informative) Mathematical algorithms for the estimation of the actual size of a discontinuity</b> .....	<b>41</b>
<b>Annex G (informative) Examples of special sizing techniques</b> .....	<b>47</b>
<b>Bibliography</b> .....	<b>50</b>

**ISO 16827:2025(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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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16827:2012), which has been technically revised.

The main changes are as follows:

- figures have been updated;
- references have been updated;
- information added in the scope that the technique can also be used with phased array.

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 16827:2025(en)****Introduction**

The following documents on ultrasonic testing are linked:

ISO 16810, *Non-destructive testing — Ultrasonic testing — General principles*

ISO 16811, *Non-destructive testing — Ultrasonic testing — Sensitivity and range setting*

ISO 16823, *Non-destructive testing — Ultrasonic testing — Through transmission technique*

ISO 16826, *Non-destructive testing — Ultrasonic testing — Testing for discontinuities perpendicular to the surface*

ISO 16827, *Non-destructive testing — Ultrasonic testing — Characterization and sizing of discontinuities*

ISO 16828, *Non-destructive testing — Ultrasonic testing — Time-of-flight diffraction technique as a method for detection and sizing of discontinuities*

# Non-destructive testing — Ultrasonic testing — Characterization and sizing of discontinuities

## 1 Scope

This document specifies the general principles and techniques for the characterization and sizing of previously detected discontinuities in order to ensure their evaluation against applicable acceptance criteria.

This document is applicable, in general terms, to discontinuities in those materials and applications covered by ISO 16810.

Phased array techniques can also be applied but additional steps or verifications can be needed.

## 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 5577, *Non-destructive testing — Ultrasonic testing — Vocabulary*

ISO 16810, *Non-destructive testing — Ultrasonic testing — General principles*

ISO 16811, *Non-destructive testing — Ultrasonic testing — Sensitivity and range setting*

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