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Non-destructive testing - Ultrasonic testing -  
Vocabulary (ISO 5577:2025)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 5577:2025 sisaldab Euroopa standardi EN ISO 5577:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 08.10.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 5577:2025 consists of the English text of the European standard EN ISO 5577:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 08.10.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 01.040.19, 19.100

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EUROPEAN STANDARD

EN ISO 5577

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Non-destructive testing - Ultrasonic testing - Vocabulary (ISO 5577:2025)

Essais non destructifs - Contrôle par ultrasons -  
Vocabulaire (ISO 5577:2025)

Zerstörungsfreie Prüfung - Ultraschallprüfung -  
Begriffe (ISO 5577:2025)

This European Standard was approved by CEN on 21 September 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

This document (EN ISO 5577:2025) 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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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.

This document supersedes EN ISO 5577:2017.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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## Endorsement notice

The text of ISO 5577:2025 has been approved by CEN as EN ISO 5577:2025 without any modification.

# Contents

Page

<b>Foreword</b> .....	<b>iv</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 Terms related to frequencies, waves and pulses</b> .....	<b>1</b>
4.1 Frequencies.....	1
4.2 Waves and pulses.....	3
4.3 Types of ultrasonic waves.....	5
<b>5 Terms related to sound</b> .....	<b>6</b>
5.1 Sound generation and reception.....	6
5.2 Sound propagation.....	7
5.3 Loss of sound pressure.....	10
5.4 Ultrasonic waves at interfaces.....	10
<b>6 Terms related to test equipment</b> .....	<b>14</b>
6.1 Instrument.....	14
6.2 Probes.....	16
6.3 Combined test equipment.....	23
6.4 Instrument setting, reference blocks and test blocks.....	24
<b>7 Terms related to ultrasonic testing</b> .....	<b>25</b>
7.1 Testing techniques.....	25
7.2 Test object.....	30
7.3 Coupling.....	32
7.4 Reflectors.....	32
7.5 Signals and indications.....	33
7.6 Presentations.....	35
7.7 Location.....	39
7.8 Evaluation of indications.....	41
<b>Bibliography</b> .....	<b>44</b>
<b>Index</b> .....	<b>45</b>

## 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 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 third edition cancels and replaces the second edition (ISO 5577:2017), which has been technically revised.

The main changes are as follows:

- terms pulse overshoot, main lobe, main beam, side lobe, diffraction, contact surface, echo amplitude, signal amplitude, and full screen height have been added;
- the term "plate wave" was replaced by "Lamb wave";
- some definitions and figures have been revised.

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).

# Non-destructive testing — Ultrasonic testing — Vocabulary

## 1 Scope

This document defines the terms used in ultrasonic non-destructive testing and forms a common basis for standards and general use.

This document does not cover specific terms used in ultrasonic testing with arrays.

NOTE Terms used in ultrasonic testing with arrays are defined in ISO 23243.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

## 4 Terms related to frequencies, waves and pulses

### 4.1 Frequencies

#### 4.1.1

##### **frequency**

number of cycles per second

Note 1 to entry: Expressed in Hertz (Hz).

#### 4.1.2

##### **nominal frequency**

probe frequency

*frequency* (4.1.1) of the *probe* (6.2.1) as stated by the manufacturer

#### 4.1.3

##### **test frequency**

effective ultrasonic frequency of a system used to test a material or object

#### 4.1.4

##### **amplitude spectrum**

distribution of *amplitude* (4.2.2) in relation to *frequency* (4.1.1)

Note 1 to entry: See [Figure 1](#).

#### 4.1.5

##### **centre frequency**

arithmetic mean of the upper and lower *cut-off frequencies* (4.1.7)

Note 1 to entry: See [Figure 1](#).