

**Mittepurustav katsetamine.  
Ultraheliuuring. Osa 3: Ülekandetehnika**

Non destructive testing - Ultrasonic examination -  
Part 3: Transmission technique

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 583-3:1999 sisaldab Euroopa standardi EN 583-3:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 583-3:1999 consists of the English text of the European standard EN 583-3:1997.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> Standardi käesolev osa määrab kindlaks ultraheli-ülekandetehnika põhimõtted. Ülekandetehnika on kasutatav defektide leidmiseks ja nõrgestatud kohtade määramiseks.</p>	<p><b>Scope:</b></p>
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**ICS** 19.100

**Võtmesõnad:** generalities, kontrollimisviisid, mittepurustavad teimid, mõõtmised, transmission, ultrahelisagedused, ultraheliuuringud, võrdlev analüüs

ICS 19.100

Descriptors: Non-destructive testing, ultrasonic testing.

**English version**

Non-destructive testing

**Ultrasonic examination**

**Part 3: Transmission technique**

Essais non destructifs – Contrôle ultraso-  
nore – Partie 3: Technique par transmission

Zerstörungsfreie Prüfung – Ultraschall-  
prüfung – Teil 3: Durchschallungstechnik

This European Standard was approved by CEN on 1997-04-10.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
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## Foreword

This European Standard has been prepared by 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 November 1997, and conflicting national standards shall be withdrawn at the latest by November 1997.

This standard consists of the following parts:

- EN 583-1 Non destructive testing - Ultrasonic examination - Part 1: General principles.
- EN 583-2 Non destructive testing - Ultrasonic examination - Part 2: Sensitivity and range setting.
- EN 583-3 Non destructive testing - Ultrasonic examination - Part 3: Transmission technique.
- EN 583-4 Non destructive testing - Ultrasonic examination - Part 4: Examination for imperfections perpendicular to the surface.
- EN 583-5 Non destructive testing - Ultrasonic examination - Part 5: Characterization and sizing of imperfections.
- ENV 583-6 Non destructive testing - Ultrasonic examination - Part 6: Time-of-flight diffraction technique as a method for detection and sizing of imperfections.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## **1 Scope**

This part of the standard specifies the principles of transmission techniques.

Transmission techniques can be used for:

- detection of imperfections;
- determination of attenuation.

The general principles required for the use of ultrasonic examination of industrial products are described in part 1 of this standard.

The transmission technique is used for examination of flat products, e.g. plates and sheets.

Further, it is used for examinations e.g.:

- where the shape, dimensions or orientation of possible imperfections are unfavourable for direct reflection;
- in materials with high attenuation;
- in thin products.

## **2 Normative references**

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 583-1      Non destructive testing - Ultrasonic examination -  
Part 1: General principles.

EN 1330-4      Non destructive testing - Terminology -  
Part 4: Terms used in ultrasonic testing.

## **3 Definitions**

For the purposes of this standard the definitions in EN 1330-4 apply.