

Non-destructive testing - Eddy current examination - Equipment characteristics and verification - Part 3: System characteristics and verification

Non-destructive testing - Eddy current examination - Equipment characteristics and verification - Part 3: System characteristics and verification

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13860-3:2004 sisaldab Euroopa standardi EN 13860-3:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.05.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13860-3:2004 consists of the English text of the European standard EN 13860-3:2003.</p> <p>This document is endorsed on 18.05.2004 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>
--	---

<p>Käsitlusala:</p> <p>This European Standard identifies the functional characteristics of a general purpose eddy current system and provides methods for their measurement and verification.</p>	<p>Scope:</p> <p>This European Standard identifies the functional characteristics of a general purpose eddy current system and provides methods for their measurement and verification.</p>
--	--

ICS 19.100

Võtmesõnad:

ICS 19.100

English version

Non-destructive testing - Eddy current examination - Equipment characteristics and verification - Part 3: System characteristics and verification

Essais non destructifs - Examen par courants de Foucault -
Caractéristiques et vérification de l'appareillage - Partie 3:
Caractéristiques du système et vérifications

Zerstörungsfreie Prüfung - Wirbelstromprüfung -
Kenngrößen von Prüfeinrichtungen und deren Verifizierung
- Teil 3: Kenngrößen des Systems und deren Verifizierung

This European Standard was approved by CEN on 7 November 2003.

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 Management Centre or to any CEN member.

This European Standard exists 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 Management Centre has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 System characteristics	4
4.1 General characteristics	4
4.1.1 Introduction	4
4.1.2 Physical characteristics	4
4.1.3 Calibration related characteristics	5
4.1.4 Functional characteristics	5
4.2 Accessories	5
5 Verification	5
5.1 General	5
5.2 Levels of verification	5
5.3 Verification procedure	6
5.4 Corrective actions	6
6 Implementation of the functional verification	7
Bibliography	8

Foreword

This document (EN 13860-3:2003) 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 June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document includes a Bibliography.

EN 13860 comprises a series of European Standards for "*Eddy current examination - Equipment*" which is made up of the following:

EN 13860-1 *Non-destructive testing - Eddy current examination - Equipment characteristics and verification - Part 1: Instrument characteristics and verification.*

EN 13860-2 *Non-destructive testing - Eddy current examination - Equipment characteristics and verification - Part 2: Probe characteristics and verification.*

EN 13860-3 *Non-destructive testing - Eddy current examination - Equipment characteristics and verification - Part 3: System characteristics and verification.*

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard identifies the functional characteristics of a general purpose eddy current system and provides methods for their measurement and verification.

The evaluation of these characteristics permits a well-defined description and comparability of an eddy current equipment.

By careful choice of the characteristics, a consistent and effective eddy current examination system can be designed for a specific application.

Where accessories are used, these should be characterised using the principles of this standard.

This standard does not give the extent of verification nor acceptance criteria for the characteristics. These are given in the application documents.

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 (including amendments).

EN 1330-5:1998 *Non-destructive testing - Terminology - Part 5: Terms used in Eddy current testing.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 1330-5:1998 apply.

4 System characteristics

4.1 General characteristics

4.1.1 Introduction

The system is designed to examine a defined product, or perform a defined measurement; the eddy current techniques implemented shall be specified. A system comprises the instrument, interconnecting elements e.g. cable, slip rings ..., probe arrangement, mechanical arrangement, accessories, and reference pieces.

The general characteristics of a system include the following:

4.1.2 Physical characteristics

- throughput speed;
- scanning path;
- mechanical arrangement and settings and their interaction with the product to be tested.