

Non-destructive testing — Acoustic emission — Equipment characterization —

Part 2: Verification of operating characteristic

The European Standard EN 13477-2:2001 has the status of a British Standard.

ICS 17.140.01; 19.100

National foreword

This British Standard is the official English language version of EN 13477-2:2001.

The UK participation in its preparation was entrusted to Technical Committee WEE/46, Non-destructive testing, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

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The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 March 2001

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Caractérisation de l'équipement — Partie 2: Vérifications
des caractéristiques de fonctionnement

Zerstörungsfreie Prüfung — Schallemissionsprüfung —
Gerätecharakterisierung — Teil 2: Überprüfung der
Betriebskenngrößen

This European Standard was approved by CEN on 28 December 2000.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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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 July 2001, and conflicting national standards shall be withdrawn at the latest by July 2001.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make normative reference to this European Standard.

This standard about “Non destructive testing — Acoustic emission — Equipment characterization” consists of the following parts:

Part 1: Equipment description

Part 2: Verification of operating characteristics

Part one of this standard gives a description of the main components of an AE monitoring system.

Part two of this standard gives methods and acceptance criteria for verifying the electronic performance of an AE monitoring system. These methods and acceptance criteria are used to routinely check and verify the performance of an AE monitoring system composed of one or more channels during its life time.

Annex A is informative.

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 methods for routine verification of the performance of an AE equipment comprising one or more sensing channels. It is intended for use by operators of the equipment. Verification of the measurement characteristics is recommended after purchase of equipment, modifications or use under extraordinary conditions.

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 1330-1, *Non-destructive testing — Terminology — Part 1: List of general terms*

EN 1330-2, *Non-destructive testing — Terminology — Part 2: Terms common to the non-destructive testing methods*

EN 1330-9, *Non-destructive testing — Terminology — Part 9: Terms used in acoustic emission testing*

EN 13477-1:2001, *Non-destructive testing — Acoustic emission — Equipment characterization — Part 1: Equipment description*

3 Terms and definitions

For the purposes of this standard the definitions of EN 1330-1, EN 1330-2, EN 1330-9, EN 13477-1:2001 and IEC 60050 International Electrotechnical Vocabulary apply.

4 Required test equipment

The following minimum test equipment is required:

- Test block;
- Hsu-Nielsen source;
- Sweep function/variable pulse signal generator;
- Random noise generator;
- Dual channel storage oscilloscope;
- Variable attenuator, graduated in decibels;
- Multimeter;
- RMS voltmeter;
- DC Power supply.