

Laboratory tests on noise emission from appliances and equipment intended for use in water supply installations —

Part 1: Method for measurement

[ISO title: Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement]

UDC 534.83:628.15.002.5

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Environment and Pollution Standards Committee (EPC/-) to Technical Committee EPC/1, upon which the following bodies were represented:

- Association of Consulting Engineers
- British Broadcasting Corporation
- British Occupational Hygiene Society
- British Telecommunications plc
- Department of Health and Social Security
- Department of the Environment (Building Research Establishment)
- Department of Trade and Industry (Air Division)
- Department of Trade and Industry (National Physical Laboratory)
- Engineering Equipment and Materials Users' Association
- Health and Safety Executive
- Incorporated Association of Architects and Surveyors
- Institute of Acoustics
- Institute of Occupational Hygienists
- Institute of Physics
- Institute of Sound and Vibration Research
- Institution of Civil Engineers
- Institution of Electronic and Radio Engineers
- Petroleum Industry Association
- Royal Institute of British Architects
- Society of Environmental Engineers
- Transmission and Distribution Association (BEAMA Limited)

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- Aggregate Concrete Block Association
- Association of Building Component Manufacturers Ltd.
- Autoclaved Aerated Concrete Products Association
- Brick Development Association
- British Ceramic Research Association
- Calcium Silicate Brick Association Limited
- Cement Makers' Federation
- Concrete Society
- Gypsum Products Development Association
- Heriot-Watt University
- Hevac Association
- National Brassfoundry Association
- Structural Insulation Association
- Suspended Ceilings Association
- Timber Research and Development Association

This British Standard, having been prepared under the direction of the Environment and Pollution Standards Committee, was published under the authority of the Board of BSI and comes into effect on 30 September 1987

© BSI 09-1999

The following BSI references relate to the work on this standard:
Committee reference EPC/1
Draft for comment 82/52440 DC

ISBN 0 580 16032 7

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
0 Introduction	1
1 Scope and field of application	1
2 References	1
3 Definitions	1
4 Principle	2
5 Test arrangement	2
6 Test equipment	4
7 Installation noise standard	5
8 Test procedure	7
9 Expression of results	9
10 Test report	9
Annex Alternative procedures for measurements for computer-aided test facilities	10
Figure 1 — Example of test arrangement	3
Figure 2 — Example of equipment for stabilization and checking of test arrangement	5
Figure 3 — Installation noise standard	6
Figure 4 — Arrangement for using the installation noise standard (INS) in horizontal position	7
Figure 5 — Arrangement for using the installation noise standard (INS) in vertical position	8
Table 1 — Corrections of octave band sound pressure levels due to background noise	3
Table 2 — Reference values for the octave band sound pressure levels, L_{srn} , for the INS at flow pressure of 0,3 MPa	5
Table 3 — Calculated one-third octave band reference values for the INS at a flow pressure of 0,3 M a	10
Publications referred to	Inside back cover

National foreword

This Part of BS 6864 has been prepared under the direction of the Environment and Pollution Standards Committee and is identical with ISO 3822-1:1983 “Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement” published by the International Organization for Standardization (ISO). ISO 3822-1 was prepared by Subcommittee 2, Building acoustics, of ISO Technical Committee 43, Acoustics, with the active participation and approval of the UK.

BS 6864 at present comprises the following Parts, which have been published:

- Part 1: Method for measurement;
- Part 2: Method for mounting and operating draw-off taps;
- Part 3: Method for mounting and operating in-line valves and appliances;
- Part 4: Method for mounting and operating special appliances.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “part of ISO 3822” appear, referring to this standard, they should be read as “Part of BS 6864”.

In British Standards it is current practice to use the symbol “L” for litre (and in its submultiples) rather than “l”.

It should be noted that the text of 5.1, paragraph 4 is worded in recommendatory terms and in British Standards would normally have been included in a note.

Also, it should be noted that the note following 5.5, paragraph 2 is worded in terms of requirements and in British Standards these would normally have been included in the main text.

Cross-references

International Standard	Corresponding British Standard
ISO 7-1:1982	BS 21:1985 <i>Specification for pipe threads for tubes and fittings where pressure-tight joints are made on the threads (metric dimensions)</i> (Technically equivalent)
IEC 225:1966	BS 2475:1964 <i>Octave and one-third octave band-pass filters</i> (Technically equivalent)
IEC 651:1979	BS 5969:1981 <i>Sound level meters</i> (Identical)

The Technical Committee has reviewed the provisions of ISO 49, to which reference is made in Figure 2, Figure 4 and Figure 5, and of ISO 65, to which reference is made in 5.4 and has decided that they are acceptable for use in conjunction with this standard.

The malleable cast iron fittings in accordance with ISO 49, referred to in Figure 2, Figure 4 and Figure 5, are identical with those of the same designation that are specified in BS 143 & 1256:1986 “Specification for malleable cast iron and cast copper alloy threaded pipe fittings”.

ISO 3822-2, ISO 3822-3 and ISO 3822-4 are referred to in clause 0 and 8.3 but, as they are given for information only, they do not affect the use of this Part of BS 6864. The related British Standards are BS 6864-2, BS 6864-3 and BS 6864-4.

Textual errors. When adopting the text of the International Standard, the following textual errors were discovered. They have been marked in the text and have been reported to ISO in a proposal to amend the text of the International Standard.

In **5.1**, paragraph 3, line 1 “should” should be read as “shall”.

In **5.7**, paragraph 1, line 1 “recommended” should be read as “required”.

In clause **7**, in the note following paragraph 5, in line 1 “shall” should be read as “should”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

