

Specifications and testing of compressed air dryers

[ISO title: Compressed air dryers — Specifications and testing]

UDC 621.51.046

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Machinery and Components Standards Committee (MCE/-) to Technical Committee MCE/8, upon which the following bodies were represented:

- BEAMA Ltd.
- British Coal
- British Compressed Air Society
- British Gas Corporation
- Construction Plant-hire Association
- Department of Trade and Industry, National Engineering Laboratory
- Electricity Supply Industry in England and Wales
- Engineering Equipment and Materials Users' Association
- Health and Safety Executive
- Imperial College of Science and Technology
- Institute of Marine Engineers
- Institution of Gas Engineers
- Institution of Mechanical Engineers
- Institution of Mining and Metallurgy
- Institution of Mining Engineers
- South Wales Institute of Engineers

This British Standard, having been prepared under the direction of the Machinery and Components Standards Committee, was published under the authority of the Board of BSI and comes into effect on 28 November 1986

© BSI 11-1999

The following BSI references relate to the work on this standard:
Committee reference MCE/8
Draft for comment 83/79494 DC

ISBN 0 580 15455 6

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
1 Scope and field of application	1
2 Units	1
3 References	1
4 Definitions	1
5 Types of compressed air dryers	2
6 Reference (standard rating) conditions and performance rating parameters	3
7 Specification	3
8 Data for performance comparisons	3
9 Performance measuring and testing	3
10 Acceptance deviations from rated values	6
Annex A Test report form	7
Annex B Typical testing system for air dryers	8
Annex C Saturation pressure p_s and density ρ_v of pure water vapour	10
Figure 1 — Typical testing system for air dryers	8
Figure 2 — Measurement of power in a three-phase three wire circuit using two wattmeters	8
Table 1 — Non-SI units	1
Table 2 — Reference conditions	3
Table 3 — Performance rating parameters	3
Table 4 — Use and specification data	4
Table 5 — Supplier's data for performance comparisons	5
Table 6 — Accuracy of dew point measurement	6
Publications referred to	Inside back cover

National foreword

This British Standard, which has been prepared under the direction of the Machinery and Components Standards Committee, is identical with ISO 7183:1986 “*Compressed air dryers — Specifications and testing*”. The International Standard was prepared by Technical Committee ISO/TC 118, Compressors, pneumatic tools and pneumatic machines, of the International Organization for Standardization (ISO) and in the development of which the UK played a leading part.

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 “International Standard” appear, referring to this standard, they should be read as “British Standard”.

Cross references

International Standards	Corresponding British Standards
ISO 131:1979	BS 3045:1981 <i>Method of expression of physical and subjective magnitudes of sound or noise in air</i> (Technically equivalent)
ISO 266:1975	BS 3593:1963 <i>Recommendations on preferred frequencies for acoustical measurements</i> (Technically equivalent)
ISO 1000:1981	BS 5555:1981 <i>Specification for SI units and recommendations for the use of their multiples and of certain other units</i> (Identical)
ISO 1217:1975	BS 1571 <i>Testing of positive displacement compressors and exhausters</i> Part 1:1975 <i>Acceptance tests</i> (Identical)
ISO 1219:1976	BS 2917:1977 <i>Specification for graphical symbols used on diagrams for fluid power systems and components</i> (Identical)
ISO 5167:1980	BS 1042 <i>Methods of measurement of fluid flow in closed conduits</i> Part 1: Section 1.1:1981 <i>Orifice plates, nozzles and Venturi tubes inserted in circular cross-section conduits running full</i> (Technically equivalent)
ISO 5388:1981	BS 6244:1982 <i>Code of practice for stationary air compressors</i> (Identical)
IEC Publication 51:1973	BS 89:1977 <i>Specification for direct acting indicating electrical measuring instruments and their accessories</i> (Identical)
IEC Publication 651:1979	BS 5969:1981 <i>Specification for sound level meters</i> (Identical)

The Technical Committee has reviewed the provisions of ISO 5941, to which reference is made in the text, and has decided they are acceptable for use in conjunction with this standard.

The related British Standard for ISO 5389, which is at draft stage, is BS 2009 “*Code for acceptance tests for turbocompressors and exhausters*”. However, as the UK has voted in favour of ISO/DIS 5389, it is intended to implement the International Standard, when published, as a revision of that British Standard. 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 12, 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.

