

BS 4N 100-1:1999+A3:2018



BSI Standards Publication

Aircraft oxygen systems and equipment

Part 1: Design and installation

bsi.

AVA Documents
Document Sharing Hub

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2018

Published by BSI Standards Limited 2018

ISBN 978 0 539 01057 2

ICS 49.090

The following BSI references relate to the work on this document:

Committee reference ACE/38

Drafts for comment WD/DC96/706265; WD/DC02/711914; WD/DC07/30158318; 18/30377853 DC

Amendments/corrigenda issued since publication

Date	Text affected
31 October 2005	A1: New subclause 9.3 added
31 July 2007	A2: See foreword
31 December 2018	A3: See foreword

Contents

	Page
Foreword	ii
1 Scope	1
2 Normative references	1
3 Pressure ranges	2
<i>Table 1 — Pressure ranges</i>	2
4 General	2
<i>Table 2 — Recommended clearances</i>	2
5 Materials	3
6 Couplings and connections	4
7 Filters	5
8 Vent and relief devices	5
9 Pressure joints	6
10 Moisture and ice accretion	7
11 Control knobs and switches	7
12 Strength of materials	7
13 Soldering, brazing and welding	8
14 Cleaning processes	9
15 Installation of equipment	9
16 Identification marking	9
Bibliography	10

Summary of pages

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

Foreword

Publishing information

This part of BS 4N 100 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 15 October 1999. It was prepared by Technical Committee ACE/38, *Aircraft oxygen equipment*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This part of BS 4N 100-1:1999+A3:2018 supersedes BS 4N 100-1:1999, which is withdrawn.

Information about this document

BS N 100 consists of the following parts:

- *Part 1: Design and installation;*
- *Part 2: Tests for the compatibility of materials in the presence of oxygen;*
- *Part 3: Testing of equipment and systems;*
- *Part 4: Guide to the physiological factors;*
- *Part 5: Guide to fire and explosion hazards associated with oxygen, including handling, storage and replenishment;*
- *Part 6: Guidance and recommendations on the selection of materials for use with oxygen;*
- *Part 7: Guide to cleaning, labelling and packaging.*

Text introduced or altered by Amendment No. 2 and Amendment No. 3 are indicated in the text by the tags **A2** **A2** and **A3** **A3**. Minor editorial changes are not tagged.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This part of BS 4N 100 specifies the general design requirements for airborne oxygen breathing systems, including oxygen storage and generation equipment and ground support equipment. New tests are specified for compatibility of materials for use in the presence of oxygen. This part also provides some guidance and recommendations on the design and installation of items of equipment for use in oxygen systems.

NOTE The guidance and recommendations contained herein may be used equally well in non-aerospace applications.

In addition, for all equipment for aircraft oxygen systems, conformance to the relevant parts, sections and sub-sections of BS G 100 is specified.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of this British Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references the latest edition of the publication referred to applies.

BS C 5, *Specification for mating dimensions for liquid oxygen replenishment couplings*

BS C 20, *Specification for aircraft gaseous oxygen replenishment connection (inch dimensions)*

BS G 100-2.3.0, *Specification for general requirements for equipment in aircraft — All equipment — Environmental conditions — Standard test requirements*

BS G 100-2.3.3, *Specification for general requirements for equipment in aircraft — All equipment — Environmental conditions — Mould growth*

BS N 2, *Specification for general requirements for construction and performance of airborne chemical oxygen generators*

BS N 100-2, *Aircraft oxygen systems and equipment — Part 2: Tests for the compatibility of materials in the presence of oxygen*

BS N 100-3, *Aircraft oxygen systems and equipment — Part 3: Methods of testing equipment and systems*

BS N 100-5, *Aircraft oxygen systems and equipment — Part 5: Guide to fire and explosion hazards associated with oxygen*

BS N 100-6, *Aircraft oxygen systems and equipment — Part 6: Guidance and recommendations on the selection of materials for use with oxygen*

BS N 100-7, *Aircraft oxygen systems and equipment — Part 7: Guide to cleaning, labelling and packaging*

BS M 23, *Specification for an identification scheme for pipelines*