
**Cryogenic vessels — Cleanliness for
cryogenic service**

Réipients cryogéniques — Propreté en service cryogénique



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Contents

Page

Foreword.....	iv
1 Scope.....	1
2 Normative references	1
3 Terms and definitions.....	1
4 Requirements	2
4.1 General requirements	2
4.2 Additional requirements for oxygen and oxidizing fluids	2
5 Cleaning procedure.....	2
6 Cleanliness evaluation.....	2
7 Post-cleaning protection.....	2
8 Identification.....	3
Annex A (informative) Inspection methods	4
Bibliography	7

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 23208 was prepared by Technical Committee ISO/TC 220, *Cryogenic vessels*.

ISO 23208 is based on the European Standard EN 12300.

Cryogenic vessels — Cleanliness for cryogenic service

1 Scope

This International Standard specifies the minimum requirements for the cleanliness of all surfaces of cryogenic vessels and associated accessories that are in contact with the cryogenic fluid at any expected operating conditions.

This International Standard defines the acceptable level of surface and particle contamination to minimize the risk of malfunction of equipment and ensure safety against ignition when in contact with oxygen or oxidizing fluids (see ISO 10156-2).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10156-2, *Gas cylinders — Gases and gas mixtures — Part 2: Determination of oxidizing ability of toxic and corrosive gases and gas mixtures*¹⁾

ISO 21010, *Cryogenic vessels — Gas/materials compatibility*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

cryogenic fluid

gas which is partially liquid because of its low temperature

NOTE 1 Includes totally evaporated liquids and supercritical fluids.

NOTE 2 In the context of this International Standard, refrigerated but non-toxic gases and mixtures of them are referred to as cryogenic fluids.

NOTE 3 See also ISO 21029-1, ISO 20421-1 and/or ISO 21009-1.

3.2

oxidizing fluid

cryogenic fluid with oxidizing properties (in accordance with ISO 10156-2)

1) To be published.