
**Cryogenic vessels — Static vacuum
insulated vessels —**

**Part 2:
Operational requirements**

*Réipients cryogéniques — Réipients fixes isolés sous vide —
Partie 2: Exigences de fonctionnement*



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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 21009-2 was prepared by Technical Committee ISO/TC 220, *Cryogenic vessels*.

ISO 21009 consists of the following parts, under the general title *Cryogenic vessels — Static vacuum insulated vessels*:

- *Part 1: Design, fabrication, inspection and tests*
- *Part 2: Operational requirements*

Cryogenic vessels — Static vacuum insulated vessels —

Part 2:

Operational requirements

1 Scope

This part of ISO 21009 specifies operational requirements for static vacuum insulated vessels designed for a maximum allowable pressure of more than 0,5 bar (50 kPa). It may also be used as a guideline for vessels designed for a maximum allowable pressure of less than 0,5 bar (50 kPa).

This part of ISO 21009 applies to vessels designed for cryogenic fluids specified in EN 13458-1 and EN 13458-2.

Static cryogenic vessels are often partly equipped by the manufacturer, but may be installed or re-installed by another party, such as the operator, user or owner. For this reason, some of the scope of this part of ISO 21009, which includes installation, putting into service, inspection, filling, maintenance and emergency procedure, overlaps with EN 13458-1, EN 13458-2 and EN 13458-3.

NOTE For the installation of these vessels, additional requirements can apply; these are defined in specific regulations.

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 23208, *Cryogenic vessels — Cleanliness for cryogenic service*

EN 13458-1:2002, *Cryogenic vessels — Static vacuum insulated vessels — Part 1: Fundamental requirements*

EN 13458-2:2002, *Cryogenic vessels — Static vacuum insulated vessels — Part 2: Design, fabrication, inspection and testing*

EN 13458-3:2003, *Cryogenic vessels — Static vacuum insulated vessels — Part 3: Operational requirements*

3 Terms and definitions

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

3.1

putting into service

operation by which a vessel is prepared to be used

NOTE It applies to either a new vessel being used for the first time or an existing vessel being returned to service.

3.2

filling

operation by which a vessel undergoes a prefill check, filling with a cryogenic fluid and an after-fill check