INTERNATIONAL STANDARD

ISO 21013-2

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Cryogenic vessels — Pressure-relief accessories for cryogenic service —

Part 2: Non-reclosable pressure-relief devices

Récipients cryogéniques — Dispositifs de sécurité pour le service cryogénique —

Partie 2: Dispositifs de sécurité non refermables

Reference number
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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 21013-2 was prepared by Technical Committee ISO/TC 220, *Cryogenic vessels.*

ISO 21013 consists of the following parts, under the general title *Cryogenic vessels — Pressure-relief accessories for cryogenic service*:

— *Part 1: Reclosable pressure-relief valves*

— *Part 2: Non-reclosable pressure-relief devices*

— *Part 3: Sizing and capacity determination*

Cryogenic vessels — Pressure-relief accessories for cryogenic service —

Part 2: Non-reclosable pressure-relief devices

1 Scope

This International Standard specifies the requirements for the design, manufacture and testing of non-reclosable pressure-relief devices for cryogenic service, i.e. for operation with cryogenic fluids in addition to operation at temperatures from ambient to cryogenic.

This International Standard is restricted to bursting-disc and buckling-pin devices not exceeding a size of DN 200 designed to relieve single-phase vapours or gases. A bursting-disc or buckling-pin assembly may be specified, constructed and tested such that it is suitable for use with more than one gas or with mixtures of gases.

NOTE This International Standard does not provide methods for determining the capacity of bursting-disc or buckling-pin devices for a particular cryogenic vessel. Such methods are provided in ISO 21013-3.

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 4126-2, *Safety devices for protection against excessive pressure — Part 2: Bursting disc safety devices*

ISO 20421-1, *Cryogenic vessels — Large transportable vacuum-insulated vessels — Part 1: Design, fabrication, inspection and testing*

ISO 21009-1, *Cryogenic vessels — Static vacuum-insulated vessels — Part 1: Design, fabrication, inspection, and tests*

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

ISO 21028-1, *Cryogenic vessels — Toughness requirements for materials at cryogenic temperature — Part 1: Temperatures below −80 °C*

ISO 21028-2, *Cryogenic vessels — Toughness requirements for materials at cryogenic temperature — Part 2: Temperatures between −80 °C and −20 °C*

ISO 21029-1, *Cryogenic vessels — Transportable vacuum insulated vessels of not more than 1 000 litres volume — Part 1: Design, fabrication, inspection and tests*

ISO 23208, *Cryogenic vessels — Cleanliness for cryogenic service*