INTERNATIONAL STANDARD

ISO 21011

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Cryogenic vessels — Valves for cryogenic service

Récipients cryogéniques — Robinets pour usage cryogénique

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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 21011 was prepared by Technical Committee ISO/TC 220, *Cryogenic vessels*.

Cryogenic vessels — Valves for cryogenic service

1 Scope

This International Standard specifies the requirements for the design, manufacture and testing of valves for a rated temperature of −40 °C and below (cryogenic service), i.e. for operation with cryogenic fluids in addition to operation at temperatures from ambient to cryogenic.

It applies to all types of cryogenic valves, including vacuum jacketed cryogenic valves up to size DN 150.

This International Standard is not applicable to pressure relief valves covered by ISO 21013-1.

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 5208, *Industrial valves — Pressure testing of valves*

ISO 10434, *Bolted bonnet steel gate valves for the petroleum, petrochemical and allied industries*

ISO 11114-1, *Transportable gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 1: Metallic materials*

ISO 11114-2, *Transportable gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 2: Non-metallic materials*

ISO 15761, *Steel gate, globe and check valves for sizes DN 100 and smaller, for the petroleum and natural gas industries*

ISO 17292, *Metal ball valves for petroleum, petrochemical and allied industries*

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

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

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

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

ASME B16.34, *Valves — Flanged, threaded, and welding end*