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English Version

Refrigerating systems and heat pumps - Valves -
Requirements, testing and marking (ISO 21922:2021)

Systèmes de réfrigération et pompes à chaleur -
Robinetterie - Exigences, essais et marquage (ISO
21922:2021)

Kälteanlagen und Wärmepumpen - Ventile -
Anforderungen, Prüfung und Kennzeichnung (ISO
21922:2021)

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European foreword

This document (EN ISO 21922:2021) has been prepared by Technical Committee ISO/TC 86 "Refrigeration and air-conditioning" in collaboration with Technical Committee CEN/TC 182 "Refrigerating systems, safety and environmental requirements" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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

This document supersedes EN 12284:2003.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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Endorsement notice

The text of ISO 21922:2021 has been approved by CEN as EN ISO 21922:2021 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the essential safety requirements of Directive 2014/68/EU

This European Standard has been prepared under a Commission's standardization request "M/071" to provide one voluntary means of conforming to essential safety requirements of Directive 2014/68/EU on the harmonisation of the laws of the Member States relating to the making available on the market of pressure equipment.

Once this standard is cited in the Official Journal of the European Union under that Directive 2014/68/EU, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential safety requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 2014/68/EU

Essential Safety Requirements of Directive 2014/68/EU	Clause(s)/subclause(s) of this EN	Remarks/Notes
4.3	6.11	Material documentation
3.1.4	6.1.1, 6.4, 6.6, 6.7, D.3.3	Heat treatment
2.2.2	7.3	Design for adequate strength
7.1.2	Annex A.2	Allowable stresses
2.6	7.12	Corrosion
3.1.1	8	Preparation of the component parts
3.2.2, 7.4	9.1	Proof test
3.3	10.2	Marking and labelling
3.4	11	Operating instructions
7.2	Table A.2	Joint coefficients
2.2.3	Annex A, C and D	Design for adequate strength by calculation
2.2.4	Annex B, C and D	Design for adequate strength by experimental method
4.1 a) and 7.5	Annex D	Requirements to avoid brittle fracture

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

**Refrigerating systems and heat
pumps — Valves — Requirements,
testing and marking**

*Systèmes de réfrigération et pompes à chaleur — Robinetterie —
Exigences, essais et marquage*





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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO TC 86, *Refrigeration and air-conditioning*, Subcommittee SC 1, *Safety and environmental requirements for refrigerating systems*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 182, *Refrigerating systems, safety and environmental requirements*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition is based on EN 12284:2003.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is intended to describe the safety requirements, safety factors, test methods, test pressures used, and marking of valves and other components with similar bodies for use in refrigerating systems.