Gas tightness of equipment for gas welding and allied processes (ISO 9090:2019)

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 9090:2019 sisaldab Euroopa standardi EN ISO 9090:2019 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 9090:2019 consists of the English text of the European standard EN ISO 9090:2019.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.11.2019.	Date of Availability of the European standard is 20.11.2019.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN ISO 9090

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English Version

Gas tightness of equipment for gas welding and allied processes (ISO 9090:2019)

Étanchéité aux gaz des appareils pour soudage aux gaz et techniques connexes (ISO 9090:2019)

Gasdichtheit von Geräten für Gasschweißen und verwandte Verfahren (ISO 9090:2019)

This European Standard was approved by CEN on 26 October 2019.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 9090:2019) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 “Welding and allied processes” 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 2020, and conflicting national standards shall be withdrawn at the latest by May 2020.

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 29090:1992.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 9090:2019 has been approved by CEN as EN ISO 9090:2019 without any modification.

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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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 8, *Equipment for gas welding, cutting and allied processes*.

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.

Official interpretations of TC 44 documents, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

This second edition cancels and replaces the first edition (ISO 9090:1989), which has been technically revised. The main changes compared to the previous edition are as follows:

— the Scope has been clarified;

— Clause 2 has been updated;

— a leakage requirement for unconnected female elements of a quick-action coupling has been added;

— the term "hose" has been replaced by "hose assembly" and the value for the leakage has been added;

— various types of blowpipes have been covered;

— in 6.2.1, b) the lower test pressure has been updated;

— the test methods for blowpipes have been moved to new Annex B;

— hydrogen is not allowed anymore for leakage test; Table A.1 has been updated accordingly.

Gas tightness of equipment for gas welding and allied processes

1 Scope

This document specifies the maximum external gas leakage rates which are acceptable for equipment used for welding, cutting and allied processes and provides the procedures of measurement.

It applies to individual components which are used in the gas supply to a blowpipe from the connecting point of the hose (outlet of the cylinder valve or connecting point to a gas supply plant). It does not apply to gas supply plant.

NOTE Specific requirements on the test method and conditions/procedure for measurement of the maximum external leakages can be given in individual standards, e.g. ISO 9012 for air-aspirated hand blowpipes. Concerning the method and the conditions to be applied, the individual standard takes precedence over this document. The maximum external leakages according to this document apply.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2503, *Gas welding equipment — Pressure regulators and pressure regulators with flow-metering devices for gas cylinders used in welding, cutting and allied processes up to 300 bar (30 MPa)*

ISO 15296, *Gas welding equipment — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15296 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Expression of leakage

The maximum permissible external gas leakage rates, which are specified in this document, are total leakage rates for a complete component including inlet connections.

These rates shall be given in cubic centimetres per hour[1)] of the gas for which the equipment was designed, corrected to standard conditions[2)] measured at room temperature.

NOTE Connections that are necessary only for the test are excluded.

1) $1\ cm^3/h = 0{,}28 \times 10^{-9}\ m^3/s$.

2) Standards conditions: 23 °C, 1,013 bar (0,101 3 MPa).