

STN	Zváranie Plynutesnosť zariadení na plameňové zváranie a príbuzné procesy (ISO 9090: 2019)	STN EN ISO 9090 05 2005
------------	--	---

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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/20

Obsahuje: EN ISO 9090:2019, ISO 9090:2019

Oznámením tejto normy sa ruší
STN EN 29090 (05 2005) z decembra 1998

130353

EUROPEAN STANDARD

EN ISO 9090

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2019

ICS 25.160.30

Supersedes EN 29090:1992

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.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 9090:2019 (E)

Contents	Page
European foreword.....	3

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.

INTERNATIONAL STANDARD

ISO 9090

Second edition
2019-10

Gas tightness of equipment for gas welding and allied processes

*Étanchéité aux gaz des appareils pour soudage aux gaz et techniques
connexes*



Reference number
ISO 9090:2019(E)

© ISO 2019

ISO 9090:2019(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Expression of leakage	1
5 Gas to be used for the tests	2
5.1 General.....	2
5.2 Type tests.....	2
5.3 Routine tests.....	2
6 Test pressure	2
6.1 Regulators.....	2
6.2 Other equipment.....	2
6.2.1 Type tests.....	2
6.2.2 Routine test.....	2
7 Maximum permissible external gas leakage rates at the above defined pressures	2
7.1 Regulators.....	2
7.2 Blowpipes.....	2
7.3 Safety devices.....	3
7.4 Quick action couplings.....	3
7.5 Devices with combined functions.....	3
7.6 Hose assembly.....	3
7.7 Other equipment.....	3
8 Measurement of the leakage rate	3
8.1 General.....	3
8.2 Principle of the method.....	3
8.3 Test apparatus for immersion method.....	3
8.4 Procedure.....	4
Annex A (normative) Correction of measurements	5
Annex B (normative) Test methods for blowpipes	6

ISO 9090:2019(E)

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN