

Zariadenia na plameňové zváranie Bezpečnostné zariadenia Časť 1: Bezpečnostné zariadenie s poistkou proti spätnému vniknutiu plameňa (ISO 5175-1: 2017)

STN EN ISO 5175-1

05 4230

Gas welding equipment - Safety devices - Part 1: Devices incorporating a flame (flashback) arrestor (ISO 5175-1:2017)

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. 04/18

Obsahuje: EN ISO 5175-1:2017, ISO 5175-1:2017

Oznámením tejto normy sa ruší STN EN 730-1 (05 4230) z novembra 2003

EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 5175-1

November 2017

ICS 25.160.30

English Version

Gas welding equipment - Safety devices - Part 1: Devices incorporating a flame (flashback) arrestor (ISO 5175-1:2017)

Matériel de soudage au gaz - Dispositifs de sécurité -Partie 1: Dispositifs avec arrêt de flamme (ISO 5175-1:2017) Gasschweißgeräte - Sicherheitseinrichtungen - Teil 1: Mit integrierter Flammensperre (ISO 5175-1:2017)

This European Standard was approved by CEN on 20 November 2017.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, 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 5175-1:2017 (E)

Contents	Page
European foreword	3

European foreword

This document (EN ISO 5175-1:2017) 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 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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 730-1:2002.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 5175-1:2017 has been approved by CEN as EN ISO 5175-1:2017 without any modification.

INTERNATIONAL STANDARD

ISO 5175-1

Second edition 2017-09

Gas welding equipment — Safety devices —

Part 1: **Devices incorporating a flame** (flashback) arrestor

Matériel de soudage au gaz — Dispositifs de sécurité — Partie 1: Dispositifs avec arrêt de flamme



ISO 5175-1:2017(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, 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 Ch. de Blandonnet 8 • CP 401 CH-1214 Vernier, Geneva, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org

ISO 5175-1:2017(E)

Contents		Page
Forew	ord	iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Design and materials	4
_	4.1 Connection	
	4.2 Materials	
5	Requirements	4
	5.1 General	
	5.2 Gas tightness	5
	5.3 Pressure resistance	6
	5.4 Flame arrestor	
	5.5 Flame arrestor with non-return valve	
	5.6 Flame arrestor with temperature-sensitive cut-off valve	
	5.7 Flame arrestor with pressure-sensitive cut-off valve	
5.8	3	
6	Methods for type testing	
	6.1 General	
	6.2 Accuracy of pressure and flow measurements	
	6.3 Test gases	
	6.4 Gas tightness test	
	6.5 Pressure resistance test	
	6.6 Non-return valve test	
	6.7 Flame arrestor test6.8 Temperature-sensitive cut-off valve test	
	6.9 Pressure-sensitive cut-off valve test	
	6.10 Internal leakage test for cut-off valves	
7	Further tests	
8	Manufacturer's instructions	
9	Marking	
-	A (informative) Gas flow measurement	
	B (informative) Third party testing information	
Annex	C (informative) Production tests	15

ISO 5175-1:2017(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 on 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 the following URL: 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*.

This first edition of ISO 5175-1, together with ISO 5175-2, cancels and replaces ISO 5175:1987, which has been technically revised. It also incorporates the Amendment ISO 5175:1987/Amd 1:2015.

A list of all parts in the ISO 5175 series can be found on the ISO website.

Requests for official interpretations of any aspect of this document should be directed to the Secretariat of ISO/TC 44/SC 8 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

INTERNATIONAL STANDARD

Gas welding equipment — Safety devices —

Part 1:

Devices incorporating a flame (flashback) arrestor

1 Scope

This document specifies the general requirements and tests for safety devices for fuel gases and oxygen or compressed air incorporating a flame (flashback) arrestor used downstream of manifold, cylinder and/or pipeline outlet regulators, and upstream of blowpipes for welding, cutting and allied processes.

This document does not specify the location of these devices in the gas system.

This document is not applicable to safety devices not incorporating a flame arrestor, covered by ISO 5175-2.

This document does not apply to the use of safety devices incorporating flame arrestors for applications with premixed oxy/fuel or air/fuel gas supply systems, e.g. downstream of gas mixers or a generator to produce hydrogen/oxygen mixture by electrolytic decomposition of water.

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 554, Standard atmospheres for conditioning and/or testing — Specifications

ISO 5175-2, Gas welding equipment — Safety devices — Part 2: Not incorporating a flame (flashback) arrestor

ISO 7289, Gas welding equipment — Quick-action couplings with shut-off valves for welding, cutting and allied processes

ISO 9090, Gas tightness of equipment for gas welding and allied processes

ISO 9539, Gas welding equipment — Materials for equipment used in gas welding, cutting and allied processes

ISO 10225, Gas welding equipment — Marking for equipment used for gas welding, cutting and allied processes

ISO 15296, Gas welding equipment —Vocabulary

EN 560, Gas welding equipment — Hose connections for equipment for welding, cutting and allied processes

koniec náhľadu – text ďalej pokračuje v platenej verzii STN