MAURITIAN STANDARD

MS ISO 5175-2:2017

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Gas welding equipment — Safety devices — Part 2: Devices not incorporating a flame (flashback) arrestor

ICS: 25.160.30

Mauritius Standards Bureau

Moka

National Foreword

This Mauritian Standard is identical with the International Standard **ISO 5175-2:2017,** *Gas welding equipment — Safety devices — Part 2: Devices not incorporating a flame (flashback) arrestor.* It was adopted by the Mauritius Standards Bureau on the recommendation of the **Mechanical Engineering Standards Committee** and approved by the **Standards Counci**l on **05 December 2019**. It was notified in **the Government Gazette** on **24 January 2020***.

For the purpose of this standard the following change should be made:

the 'decimal comma' should be replaced by 'decimal point'

***General notice no 103 of 2020**

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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).

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 5175-2, together with ISO 5175-1, 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.

This corrected version of ISO 5175-2:2017 incorporates list item h) in Clause 8.

Gas welding equipment — Safety devices —

Part 2: Devices not 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 which do not incorporate 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 which incorporate a flame arrestor, covered by ISO 5175-1.

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 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 5175-1:2017, *Gas welding equipment — Safety devices — Part 1: Incorporating a flame (flashback) arrestor*

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

ISO 7291, *Gas welding equipment — Pressure regulators for manifold systems used in welding, cutting and allied processes up to 30 MPa (300 bar)*

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*

3 Terms and definitions

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

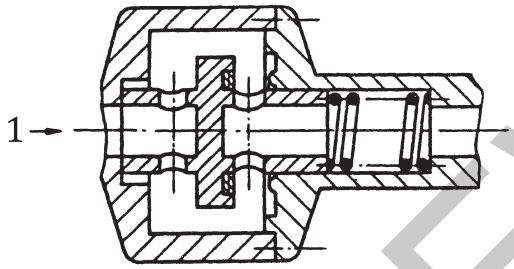
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

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

3.1
excess flow cut-off valve
device which stops the gas flow in the event of flow exceeding a predetermined value

EXAMPLE A valve is held open by a spring; it closes when the force caused by the dynamic pressure becomes greater than the force of the spring. A resetting device is necessary. An example is given in Figure 1.



Key
1 normal direction of gas flow

Figure 1 — Excess flow cut-off valve (example)

3.2
maximum operating pressure
maximum pressure to which the equipment may be subjected in service

3.3
multifunctional safety device
device which incorporates two or more of the safety functions

EXAMPLE *Non-return valve* (3.4) and excess flow cut-off valve.

3.4
non-return valve
device which prevents passage of gas in the direction opposite to flow

EXAMPLE A valve is held open by energy in gas stream and closes when downstream pressure is approximately equal to or greater than that in normal direction of flow. An example is given in Figure 2.

