INTERNATIONAL STANDARD

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AMENDMENT 1
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Safety and control devices for gas burners and gas-burning appliances — Particular requirements —

Part 4: Valve-proving systems for automatic shut-off valves

AMENDMENT 1: Application guidance for the valve-proving system

Dispositifs de contrôle et de sécurité pour les brûleurs à gaz et pour les appareils utilisant le gaz — Exigences particulières —

Partie 4: Systèmes de contrôle d'étanchéité pour robinets automatiques de sectionnement

AMENDEMENT 1: Guide d'application pour le système de contrôle d'étanchéité

Reference number
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

Amendment 1 to ISO 23551-4:2005 was prepared by Technical Committee ISO/TC 161, *Control and protective devices for gas and/or oil burners and appliances*.

Safety and control devices for gas burners and gas-burning appliances — Particular requirements —

Part 4: Valve-proving systems for automatic shut-off valves

AMENDMENT 1: Application guidance for the valve-proving system

Page 6, 7.6.1

Add the following sentence at the end of the clause:

"Annex A provides application guidance for the VPS."

Page 15

Add the following annex and Bibliography after 9.3.

Annex A
(informative)

Application guidance

A.1 General

The intended use of a valve-proving system (VPS), as described in this part of ISO 23551, in conjunction with gas burners and gas burning appliances, is to prevent the uncontrolled burning of fuel gas or its leakage to the environment due to failure in one or more of the automatic shut-off valves, piping or equipment.

The use of two or more automatic valves is required.

If one of the automatic valves or its connection or the piping in-between the valves is found to be leaking into the gas burner, the gas appliance or the environment, a signal is given and the start-up sequence of the gas burner must be stopped by adequate means.

The valve proving may be performed during every start-up, after each shut-down or both.

Due to the design, location and use of the gas burner and gas appliance, a VPS may be required, depending on:

— the size of the gas burner, burner heat input, or burner capacity;

— the type of the gas appliance, e.g. steam boiler;

— the type of burner start-up sequence, e.g. without pre-purge;

— the classification of the used automatic valves, e.g. 2 class B valves plus VPS equals 2 x class A; and

— regional legislation, e.g. discharge of unburned fuel into atmosphere is not permitted.

A.2 Use of a VPS

The use of a VPS is prescribed in international equipment standards, e.g. ISO 22967.

A.3 Regional equipment standards

The use of a VPS is prescribed in regional equipment standards, e.g.

— CAN/CSA B149.3,

— EN 676,

— EN 746-2,

— NFPA 85,

— NFPA 86.

NOTE A VPS is not intended to be used in lieu of final production test of the automatic valves, the gas burner or the gas appliance. Furthermore, a VPS is not intended to be used to replace the regular on-site inspection of the gas burner and gas appliance.

Bibliography

[1] ISO 22967, *Forced draught gas burners*

[2] EN 676:2003, *Automatic forced draught burners for gaseous fuels*

[3] EN 746-2:1997, *Industrial thermoprocessing equipment — Part 2: Safety requirements for combustion and fuel handling systems*

[4] CAN/CSA-B149.3-05, *Code for the Field Approval of Fuel-Related Components on Appliances and Equipment*

[5] NFPA 85, *Boiler and combustion systems hazards code*

[6] NFPA 86, *Standard for ovens and furnaces*

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