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## Gas cylinders — Inspection and maintenance of valves

*Bouteilles à gaz — Contrôle et maintenance des robinets*



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ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

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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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 23, *Transportable gas cylinders*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 22434:2006), which has been technically revised. The main changes are as follows:

- the Scope has been revised;
- the Normative references have been updated;
- the Terms and definitions have been updated;
- [subclauses 5.1](#), [5.2.2](#) and [5.3.2](#) have been modified;
- [Clause 6](#) “Testing” has been moved to [5.4](#) and has been modified;
- marking requirements have been modified;
- the Bibliography has been updated.

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](http://www.iso.org/members.html).

## Introduction

This document has been written so that it is suitable to be referenced in the UN Model Regulations<sup>[1]</sup>.



# Gas cylinders — Inspection and maintenance of valves

## 1 Scope

This document specifies requirements for the inspection and maintenance of valves [including ball valves and valves with integrated pressure regulator (VIPRs)] for:

- a) refillable transportable gas cylinders;
- b) cylinder bundles;
- c) pressure drums and tubes;

which convey compressed, liquefied or dissolved gases.

This document does not apply to valves for liquefied petroleum gas (LPG).

**NOTE** Where there is no risk of ambiguity, gas cylinders, cylinder bundles, pressure drums and tubes are addressed with the collective term “gas cylinders” within this document.

This document is applicable to valves reused at the time of the periodic inspection of gas cylinders, cylinder bundles, pressure drums and tubes, and can be applied at any other time, e.g. at a change of gas service (see ISO 11621).

This document does not apply to the routine inspection of valves, e.g. carried out at the time of a gas cylinder filling.

## 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 10286, *Gas cylinders — Vocabulary*

ISO 14246, *Gas cylinders — Cylinder valves — Manufacturing tests and examinations*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10286 and the following apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1

#### **inspection**

procedure to determine if a valve is suitable for further service

### 3.2

#### **dismantling**

separation of the valve into its component parts, such that the main pressure barrier of the valve is breached