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Third edition
2022-02

Gas cylinders — Cylinder valves — Manufacturing tests and examinations

*Bouteilles à gaz — Robinets de bouteilles à gaz — Essais de
fabrication et contrôles*



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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Cleanliness	2
5 Manufacturing tests and examinations	2
5.1 General.....	2
5.2 Valve test pressure.....	3
5.3 Tests to be performed on each valve.....	3
5.4 Inspections and examinations to be performed on a sample and verification of the batch documentation.....	4
5.5 Procedures to verify materials of construction and components.....	5
Annex A (informative) Example of test protocol on each valve	6
Bibliography	7

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 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 third edition cancels and replaces the second edition (ISO 14246:2014), which has been technically revised. It also incorporates Amendment ISO 14246:2014/Amd 1:2017. The main changes are as follows:

- in [Clause 4](#), a maximum level of hydrocarbon contamination of 220 mg/m² and a maximum particle size of 200 µm has been introduced for valves for oxygen and other oxidizing gases for general purpose applications, and the mandatory reference to ISO 15001 has been changed to an example for medical applications;
- in [5.2](#), indent c), the value of the test pressure for specific acetylene valves has been reduced from 37 bar to 35 bar;
- in [5.4](#), the requirements concerning the verification of the assembly with regard to the use of correct components and assembly torques have been clarified.

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.

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Introduction

This document covers the function of a valve as a closure (defined by the UN Model Regulations). Additional features of valves (e.g. pressure regulators, residual pressure-retaining devices, non-return devices and pressure relief devices) might be covered by other standards and/or regulations.

Valves conforming to this document can be expected to perform satisfactorily under normal service conditions.

This document pays particular attention to manufacturing tests and examinations of valves designed and type tested in accordance with ISO 10297.

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

In this document, the unit bar is used, due to its universal use in the field of technical gases. It should, however, be noted that bar is not an SI unit, and that the corresponding SI unit for pressure is Pa (1 bar = 10^5 Pa = 10^5 N/m²).

Pressure values given in this document are given as gauge pressure (pressure exceeding atmospheric pressure) unless noted otherwise.