

**Gas cylinders - Cylinder valves - Manufacturing tests and examinations (ISO 14246:2014)**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 14246:2014 sisaldab Euroopa standardi EN ISO 14246:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 14246:2014 consists of the English text of the European standard EN ISO 14246:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.07.2014.	Date of Availability of the European standard is 16.07.2014.
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English Version

**Gas cylinders - Cylinder valves - Manufacturing tests and examinations (ISO 14246:2014)**

Bouteilles à gaz - Robinets de bouteilles à gaz - Essais de fabrication et contrôles (ISO 14246:2014)

Gasflaschen - Flaschenventile - Herstellungsprüfungen und -überprüfungen (ISO 14246:2014)

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## Foreword

This document (EN ISO 14246:2014) has been prepared by Technical Committee ISO/TC 58 "Gas cylinders" in collaboration with Technical Committee CEN/TC 23 "Transportable gas cylinders" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 14246:2001.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 14246:2014 has been approved by CEN as EN ISO 14246:2014 without any modification.

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## Introduction

This International Standard covers the function of a cylinder valve as a closure (defined by the UN Model Regulations). Additional features of cylinder 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.

Cylinder valves complying with this International Standard can be expected to perform satisfactorily under normal service conditions.

This International Standard pays particular attention to manufacturing tests and examinations of cylinder valves designed and type tested according to ISO 10297.

This standard has been written to be in conformity with the UN Model Regulations. When published it will be submitted to the UN Sub Committee of Experts on the Transport of Dangerous Goods with a request that it be included in the UN Model Regulations.

Where there is any conflict between this International Standard and any applicable regulation, the regulation always takes precedence.

In this International Standard 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 ( $1 \text{ bar} = 10^5 \text{ Pa} = 10^5 \text{ N/m}^2$ ).

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

# Gas cylinders — Cylinder valves — Manufacturing tests and examinations

## 1 Scope

This International Standard describes the procedures and acceptance criteria for manufacturing testing and examination (sometimes called initial inspection and tests) of cylinder valves that have been manufactured according to type approvals.

This International Standard is applicable to

- a) cylinder valves intended to be fitted to refillable transportable gas cylinders,
- b) main valves (excluding ball valves) for cylinder bundles, and
- c) cylinder valves or main valves with integrated pressure regulator (VIPR)

designed and type tested according to ISO 10297.

**NOTE** Where there is no risk of ambiguity, cylinder valves, main valves and VIPR are addressed with the collective term “valves” within this document.

The principles of these tests and examinations can be beneficially applied to cylinder valves type tested to national or International Standards other than ISO 10297.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10297, *Gas cylinders — Cylinder valves — Specification and type testing*

ISO 15001, *Anaesthetic and respiratory equipment — Compatibility with oxygen*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### valve working pressure

$p_w$

settled pressure of a compressed gas at a uniform reference temperature of 15 °C in a full gas cylinder for which the valve is intended

Note 1 to entry: This definition does not apply to liquefied (e.g. carbon dioxide) or dissolved (e.g. acetylene) gases.

[SOURCE: ISO 10297:2006, 3.1, modified - Terminology has changed.]

### 3.2

#### valve test pressure

$p_{vt}$

minimum pressure applied to a valve through a gas during testing

[SOURCE: ISO 10297:2006, 3.2, modified - Terminology has changed.]