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NSAI Standards

Irish Standard
I.S. EN ISO 14246:2014&A1:2017

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

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Incorporating amendments/corrigenda/National Annexes issued since publication:

EN ISO 14246:2014/A1:2017

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NSAI	T +353 1 807 3800	Sales:
1 Swift Square,	F +353 1 807 3838	T +353 1 857 6730
Northwood, Santry	E standards@nsai.ie	F +353 1 857 6729
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National Foreword

I.S. EN ISO 14246:2014&A1:2017 is the adopted Irish version of the European Document EN ISO 14246:2014, Gas cylinders - Cylinder valves - Manufacturing tests and examinations (ISO 14246:2014)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 14246:2014/A1

August 2017

ICS 23.020.35

English Version

Gas cylinders - Cylinder valves - Manufacturing tests and examinations - Amendment 1 (ISO 14246:2014/Amd 1:2017)

Bouteilles à gaz - Robinets de bouteilles à gaz - Essais de fabrication et contrôles - Amendement 1 (ISO 14246:2014/Amd 1:2017)

Gasflaschen - Flaschenventile - Herstellungsprüfungen und -überprüfungen - Änderung 1 (ISO 14246:2014/Amd 1:2017)

This amendment A1 modifies the European Standard EN ISO 14246:2014; it was approved by CEN on 8 August 2017.

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European foreword

This document (EN ISO 14246:2014/A1:2017) 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 Amendment to the European Standard EN ISO 14246:2014 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 14246

July 2014

ICS 23.020.30

Supersedes EN ISO 14246:2001

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

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INTERNATIONAL STANDARD

ISO 14246

Second edition
2014-06-15

Gas cylinders — Cylinder valves — Manufacturing tests and examinations

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

Reference number
ISO 14246:2014(E)

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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 www.iso.org/directives.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*.

This second edition cancels and replaces the first edition (ISO 14246:2001), which has been technically revised.

The main changes from ISO 14246:2001 are

— the scope refers to cylinder valves, main valves for cylinder bundles and cylinder valves or main valves with integrated pressure regulators (VIPR) according to ISO 10297 only,

— the definitions were brought in line with the revision of ISO 10297 and ISO 10286,

— addition of a separate clause for the determination of the valve test pressure,

— modification/addition/deletion of manufacturing related definitions (batch/sample/shift),

— modification of tests to be performed on every valve,

— modification of inspections, verifications and examinations to be performed on a sample,

— addition of procedures to verify materials of construction and components,

— deletion of revalidation tests, and

— modification of example of test protocol on every valve.

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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 bar = 10^5 Pa = 10^5 N/m^2).

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

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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.]

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