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Standards

Irish Standard  
I.S. EN ISO 17871:2015

# Gas cylinders - Quick-release cylinder valves - Specification and type testing (ISO 17871:2015)

## I.S. EN ISO 17871:2015

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN ISO 17871:2015 is the adopted Irish version of the European Document EN ISO 17871:2015, Gas cylinders - Quick-release cylinder valves - Specification and type testing (ISO 17871:2015)

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**EUROPEAN STANDARD**

**EN ISO 17871**

**NORME EUROPÉENNE**

**EUROPÄISCHE NORM**

September 2015

ICS 23.020.30

English Version

## **Gas cylinders - Quick-release cylinder valves - Specification and type testing (ISO 17871:2015)**

Bouteilles à gaz - Robinets de bouteilles à ouverture  
rapide - Spécifications et essais de type (ISO  
17871:2015)

Gasflaschen - Schnellöffnungs-Flaschenventile -  
Spezifikation und Baumusterprüfung (ISO  
17871:2015)

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**EN ISO 17871:2015 (E)**

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## **European foreword**

This document (EN ISO 17871:2015) 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of an identical text or by endorsement, at the latest by March 2016, and conflicting national standards shall be withdrawn at the latest by March 2016.

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.

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## **Endorsement notice**

The text of ISO 17871:2015 has been approved by CEN as EN ISO 17871:2015 without any modification.

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# INTERNATIONAL STANDARD

**ISO  
17871**

First edition  
2015-08-15

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## **Gas cylinders — Quick-release cylinder valves — Specification and type testing**

*Bouteilles à gaz — Robinets de bouteilles à ouverture rapide —  
Spécifications et essais de type*



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**ISO 17871:2015(E)**



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## ISO 17871:2015(E)

### 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)).

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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*.

## **Introduction**

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

This International Standard has been written to be in conformity with the UN Model Regulations. When published, it will be submitted to the UN Subcommittee 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. However, it is 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 — Quick-release cylinder valves — Specification and type testing

## 1 Scope

This International Standard in conjunction with ISO 10297:2014 and ISO 14246:2014 specifies design, type testing, marking and manufacturing tests, and examinations requirements for quick-release cylinder valves intended to be fitted to refillable transportable gas cylinders which convey non-toxic, non-oxidizing, and non-corrosive compressed or liquefied gases or extinguishing agents charged with compressed gases to be used for fire-extinguishing, explosion protection, and rescue applications.

NOTE 1 The main application of such quick-release cylinder valves is in the fire-fighting industry. However, there are other applications such as to avalanche airbags, life raft inflation, and similar applications.

This International Standard covers the function of a quick-release cylinder valve as a closure.

This International Standard does not apply to quick-release cylinder valves for cryogenic equipment, for portable fire extinguishers, or for liquefied petroleum gas (LPG).

NOTE 2 Quick-release cylinder valves of refillable propellant gas cylinders used as part of portable fire extinguishers are also covered by this International Standard, if these cylinders are transported separately.

## 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 10286, *Gas cylinders — Terminology*

ISO 10297:2014, *Gas cylinders — Cylinder valves — Specification and type testing*

ISO 14246:2014, *Gas cylinders — Cylinder valves — Manufacturing tests and examinations*

ISO 22435, *Gas cylinders — Cylinder valves with integrated pressure regulators — Specification and type testing*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10286, ISO 10297:2014 and the following apply.

### 3.1

#### **quick-release cylinder valve**

cylinder valve with a valve operating mechanism designed for quick release of gas cylinder contents that is actuated by a valve operating device and which can be activated by an *activation device* (3.2) which might not be part of the quick-release cylinder valve

Note 1 to entry: Quick-release cylinder valves are further subdivided in accordance with 3.1.1 and 3.1.2.

Note 2 to entry: Commonly used valve operating mechanisms are pistons, flaps, bursting discs, piercing discs, or differential pressure devices.

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