

Gas cylinders - Parallel threads for connection of valves to gas cylinders - Part 1: Specification (ISO 15245-1:2021)

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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 and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.06.2021.	Date of Availability of the European standard is 09.06.2021.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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EUROPEAN STANDARD

EN ISO 15245-1

NORME EUROPÉENNE

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English Version

## Gas cylinders - Parallel threads for connection of valves to gas cylinders - Part 1: Specification (ISO 15245-1:2021)

Bouteilles à gaz - Filetages parallèles pour le raccordement des robinets sur les bouteilles à gaz - Partie 1: Spécification (ISO 15245-1:2021)

Ortsbewegliche Gasflaschen - Zylindrische Gewinde für den Anschluss von Ventilen an Gasflaschen - Teil 1: Spezifikation (ISO 15245-1:2021)

This European Standard was approved by CEN on 16 May 2021.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

This document (EN ISO 15245-1:2021) 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of an identical text or by endorsement, at the latest by December 2021, and conflicting national standards shall be withdrawn at the latest by December 2021.

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

This document supersedes EN ISO 15245-1:2001.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 15245-1:2021 has been approved by CEN as EN ISO 15245-1:2021 without any modification.

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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 15245-1:2001), which has been technically revised. It also incorporates the Amendment ISO 15245-1:2001/Amd.1:2013.

The main changes compared to the previous edition are as follows:

- modification of [Figure 2](#);
- addition of subclause [4.5](#);
- minor editorial changes throughout the document to fully align with ISO/IEC Directives Part 2.

A list of all parts in the ISO 15245 series can be found on the ISO website.

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

Cylinders intended to contain compressed, liquefied or dissolved gas under pressure are fitted with accessories (valves, straight or angle fittings) to allow release of and refilling with gas. In this document, the term “valve” applies to such accessories.

The connection between cylinder and valve is obtained by the assembly of two parallel threads with the same nominal pitch and thread profile – an external one on the valve stem and an internal one in the cylinder neck – and an O-ring seal.

# Gas cylinders — Parallel threads for connection of valves to gas cylinders —

## Part 1: Specification

### 1 Scope

This document specifies definitions, dimensions and tolerances of parallel screw threads of M30 x 2, M25 x 2 and M18 x 1,5, for the connection of valves to medical and industrial gas cylinders.

This document does not contain the connection requirements for:

- mechanical strength;
- gas tightness;
- capability of repeated assembly and dismounting operations (this aspect is covered in ISO 13341).

### 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 724, *ISO general-purpose metric screw threads — Basic dimensions*

ISO 5408, *Screw threads — Vocabulary*

ISO 10286, *Gas cylinders — Terminology*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10286, ISO 5408 and the following apply.

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

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

#### 3.1

##### **valve stem**

parallel sided end of valve body, with a thread formed on the external surface with a plain machined section close to the flange on the valve body for O-ring seating and seal

Note 1 to entry: See [Figure 1](#), thread X.