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

**Part 1:
Specification**

*Bouteilles à gaz — Filetages parallèles pour le raccordement des
robinets sur les bouteilles à gaz —*

Partie 1: Spécification



This document is a preview generated by ELS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Requirements	3
4.1 Thread rotation.....	3
4.2 Thread profile.....	3
4.3 Pitch.....	4
4.4 Thread dimensions.....	6
4.5 O-rings.....	6
5 Thread end finish	7
6 Marking	7
Bibliography	8

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 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.

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.