
**Gas cylinders — 17E and 25E taper
threads for connection of valves to gas
cylinders —**

**Part 1:
Specifications**

iTeh STANDARD PREVIEW
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*Bouteilles à gaz — Filetages coniques 17E et 25E pour le
raccordement des robinets sur les bouteilles à gaz —
Partie 1: Spécifications*

[ISO 11363-1:2018](https://standards.iteh.ai/catalog/standards/sist/8a8b7eb4-1b6e-485b-b950-7d2afc5e476d/iso-11363-1-2018)

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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Requirements	4
4.1 Thread rotation	4
4.2 Taper	4
4.3 Thread profile	4
4.4 Pitch, <i>P</i>	4
4.5 Dimensions	4
5 Thread end finish	6
6 Marking	8
Bibliography	9

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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).

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 on 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 the following URL: www.iso.org/iso/foreword.html. (standards.iteh.ai)

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<https://standards.iteh.ai/catalog/standards/sist/8a8b7eb4-1b6e-485b-b950-7d1f514d1034>

This second edition cancels and replaces the first edition (ISO 11363-1:2010), which has been technically revised to allow option C by modifying [Figure 2](#). It also incorporates the Technical Corrigenda ISO 11363-1:2010/Cor 1:2011 and ISO 11363-1:2010/Cor 2:2012.

A list of all parts in the ISO 11363 series can be found on the ISO website.

Introduction

Gas cylinders intended to contain compressed, liquefied or dissolved gas under pressure are fitted with accessories to allow release and refilling of gas. Hereinafter, the term “valve” will apply to such accessories.

Where the connection between cylinder and valve is obtained by assembly of two taper threads (and external one on the valve stem and an internal one in the cylinder neck), both will have the same nominal taper, thread pitch and thread profile.

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Gas cylinders — 17E and 25E taper threads for connection of valves to gas cylinders —

Part 1: Specifications

1 Scope

This document specifies dimensions and tolerances for taper screw threads of nominal diameter 17,4 mm (designated as 17E) and 25,8 mm (designated as 25E) used for the connection of valves to gas cylinders.

It does not cover the connection requirements for

- mechanical strength,
- gas tightness, and
- capability of repeated assembly and dismounting operations.

Gauge inspection is covered by ISO 11363-2.

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2 Normative references

There are no normative references in this document.

ISO 11363-1:2018

<http://reference.iteh.ai/coupling-and-burst/8a8b7eb4-1b6e-485b-b950-7d2afc5e476d/iso-11363-1-2018>

3 Terms and definitions

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

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

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

3.1 General

3.1.1

basic profile

theoretical profile, when the profile of the external thread coincides with the profile of the internal thread

3.1.2

design profile

profile which differs from the basic profile due to the radius of the root, necessary for manufacturing and strength requirements

Note 1 to entry: For such a profile, manufacturing tolerances are taken into account.

3.1.3
length of external thread

l_2
length of full form thread on the *valve stem* (3.1.8), measured along the cone axis from the *reference plane A* (3.4.3)

Note 1 to entry: See [Figure 1](#), [Table 1](#) and [Table 3](#).

3.1.4
length of internal thread

L_2
length of full form thread in the cylinder neck, measured along the cone axis from the *reference plane F* (3.4.5)

Note 1 to entry: See [Figure 1](#), [Table 2](#) and [Table 4](#).

3.1.5
pitch

P
distance, measured parallel to the cone surface, between two homologous points of two parallel consecutive flanks of the same thread

Note 1 to entry: See [Figures 2](#) and [3](#).

3.1.6
taper

ratio of the difference of two diameters corresponding to planes normal to the axis of the reference cone, and the axial distance between the same planes

Note 1 to entry: Taper can be expressed as a ratio, as an angle or as a percentage.

3.1.7
thread profile

thread shape obtained by the intersection of a plane through the thread axis and the threaded surface

3.1.8
valve stem

tapered end of the valve body (inlet connection), with a thread formed on the external surface of the truncated cone

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

3.1.9
cylinder neck thread

tapered axial hole in the cylinder neck, with a thread formed on the internal surface of the truncated cone

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

3.2 Terms relating to cones

3.2.1
major cone

cone bounding the crests of the thread of the *valve stem* (3.1.8), or the roots of the *cylinder neck thread* (3.1.9)

3.2.2
minor cone

cone bounding the roots of the thread, of the *valve stem* (3.1.8), or the crests of the *cylinder neck thread* (3.1.9)

3.2.3**pitch cone**

cone passing coaxially and midway between the *major* (3.2.1) and *minor cones* (3.2.2)

3.3 Terms relating to diameter (see Figure 1)**3.3.1****major diameter** d_{1e}

diameter of the *major cone* (3.2.1) at the *valve stem* (3.1.8) *thread reference plane A* (3.4.3) (before any chamfer is cut)

3.3.2**major diameter** D_{1e}

diameter of the *major cone* (3.2.1) at *reference plane G* (3.4.6)

3.3.3**minor diameter** d_{1i}

diameter of the *minor cone* (3.2.2) at the *valve stem* (3.1.8) *thread reference plane A* (3.4.3) (before any chamfer is cut)

3.3.4**minor diameter** D_{1i}

diameter of the *minor cone* (3.2.2) at *reference plane G* (3.4.6)

3.3.5**pitch diameter** d_{1p}

diameter of the *pitch cone* (3.2.3) at the *valve stem* (3.1.8) *thread reference plane A* (3.4.3) (before any chamfer is cut)

3.3.6**pitch diameter** d_{2p}

diameter of the *pitch cone* (3.2.3) at *reference plane B* (3.4.4)

3.3.7**pitch diameter** D_{1p}

diameter of the *pitch cone* (3.2.3) at *reference plane G* (3.4.6)

3.3.8**pitch diameter** D_{2p}

diameter of the *pitch cone* (3.2.3) at *reference plane F* (3.4.5) (before any chamfer is cut)

3.4 Terms relating to reference (see Figure 1)**3.4.1****reference length** l_1

reference dimension being the distance between the parallel *reference planes A* (3.4.3) and *B* (3.4.4)

3.4.2**reference length** L_1

reference dimension being the distance between the parallel *reference planes F* (3.4.5) and *G* (3.4.6)