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Gasflaskor – Koniska gängor av typ 17E och 25E för anslutning av ventil till gasflaska – Del 1: Specifikationer (ISO 11363-1:2018)

Gas cylinders – 17E and 25E taper threads for connection of valves to gas cylinders – Part 1: Specifications (ISO 11363-1:2018)

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Europastandarden EN ISO 11363-1:2018 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 11363-1:2018.

Denna standard ersätter SS-EN ISO 11363-1:2010, utgåva 1 och SS-EN ISO 11363-1:2010/AC:2012, utgåva 1.

The European Standard EN ISO 11363-1:2018 has the status of a Swedish Standard. This document contains the official version of EN ISO 11363-1:2018.

This standard supersedes the Swedish Standard SS-EN ISO 11363-1:2010, edition 1 and SS-EN ISO 11363-1:2010/AC:2012, edition 1.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Gasflaskor, SIS/TK 296.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 11363-1

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Supersedes EN ISO 11363-1:2010

English Version

Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders - Part 1: Specifications (ISO 11363-1:2018)

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)

Gasflaschen - 17E und 25E kegeliges Gewinde zur Verbindung von Ventilen mit Gasflaschen - Teil 1: Spezifikationen (ISO 11363-1:2018)

This European Standard was approved by CEN on 25 September 2017.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 11363-1:2018) 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 August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

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 11363-1:2010.

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

Endorsement notice

The text of ISO 11363-1:2018 has been approved by CEN as EN ISO 11363-1:2018 without any modification.

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.

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.

2 Normative references

There are no normative references in this document.

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)