

STN	Fľaše na plyny Ochranné čiapočky ventilov, chrániče ventilov a kryty Navrhovanie, výroba a skúšanie (ISO 11117: 2019)	STN EN ISO 11117 07 8608
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Gas cylinders - Valve protection caps and guards - Design, construction and tests (ISO 11117:2019)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/20

Obsahuje: EN ISO 11117:2019, ISO 11117:2019

Oznámením tejto normy sa ruší
STN EN ISO 11117 (07 8608) z februára 2009

130658

EUROPEAN STANDARD

EN ISO 11117

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2019

ICS 11.040.10; 23.020.30

Supersedes EN ISO 11117:2008

English Version

**Gas cylinders - Valve protection caps and guards - Design,
construction and tests (ISO 11117:2019)**

Bouteilles à gaz - Chapeaux fermés et chapeaux ouverts
de protection des robinets - Conception, construction
et essais (ISO 11117:2019)

Gasflaschen - Ventilschutzkappen, Schutzkörbe und
Schutzkragen - Auslegung, Bau und Prüfungen (ISO
11117:2019)

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

EN ISO 11117:2019 (E)

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European foreword

This document (EN ISO 11117:2019) 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of an identical text or by endorsement, at the latest by June 2020, and conflicting national standards shall be withdrawn at the latest by June 2020.

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 11117:2008.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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Endorsement notice

The text of ISO 11117:2019 has been approved by CEN as EN ISO 11117:2019 without any modification.

**INTERNATIONAL
STANDARD**

**ISO
11117**

Third edition
2019-11

**Gas cylinders — Valve protection caps
and guards — Design, construction
and tests**

*Bouteilles à gaz — Chapeaux fermés et chapeaux ouverts de
protection des robinets — Conception, construction et essais*



Reference number
ISO 11117:2019(E)

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CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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ISO 11117:2019(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).

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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*.

This third edition cancels and replaces the second edition (ISO 11117:2008), which has been technically revised. It also incorporates the Technical Corrigendum ISO 11117:2008/Cor.1:2009. The main changes compared to the previous edition are as follows:

- clarification of requirements for "ISO P A" marking,
- removal of Figure 2,
- substitution of Figure 1 by [Figure 1](#) a) and b), and [Figure 3](#) a) and b),
- addition of other threads than W 80 × 1/11,
- renaming and modification of the "axial test" as "vertical pull test",
- modification of the "drop test" including acceptance criteria,
- modification of marking requirements,
- addition of requirements for the test report,
- removal of normative Annex A "Marking of caps".

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

This document covers devices intended for the protection of cylinder valves, where such protection is fitted to allow safe transport, handling and storage.

This document specifies the principal dimensions, requirements for fitment and drop test procedure, to confirm the provision of adequate valve protection, in the event of the occurrence of a cylinder toppling from its base.

This document has been written so that it is suitable to be referenced in the UN Model Regulations^[1].

Gas cylinders — Valve protection caps and guards — Design, construction and tests

1 Scope

This document specifies the requirements for valve protection caps and valve guards used on cylinders for liquefied, dissolved or compressed gases.

Valve protection caps and valve guards are some of the options available to protect cylinder valves, including valves with integral pressure regulators (VIPRs) during transport.

This document is applicable to valve protection caps and valve guards which inherently provide the primary protection of a cylinder valve. It can also be used to test other equipment (e.g., handling devices) attached to cylinder packages, even in cases where the cylinder valve is inherently able to withstand damage without release of the content.

This document excludes protection devices for cylinders with a water capacity of 5 l or less and cylinders whereby the protection device is fixed by means of lugs welded or brazed to the cylinder, or is welded or brazed directly to the cylinder. This document does not cover valve protection for breathing apparatus cylinders.

NOTE Small cylinders (e.g., medical cylinders) are commonly transported in an outer-packaging (e.g., pallet) to meet transport regulations.

This document does not specify requirements that could be necessary to enable the valve protection device to be used for lifting the cylinder.

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 10286, *Gas cylinders — Terminology*

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

ISO 13341, *Gas cylinders — Fitting of valves to gas cylinders*

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