



# SLOVENSKI STANDARD SIST EN ISO 10961:2020

01-februar-2020

Nadomešča:  
SIST EN ISO 10961:2012

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**Plinske jeklenke - Snopi jeklenk - Konstruiranje, proizvodnja, preskušanje in kontrola (ISO 10961:2019)**

Gas cylinders - Cylinder bundles - Design, manufacture, testing and inspection (ISO 10961:2019)

Gasflaschen - Flaschenbündel - Auslegung, Herstellung, Prüfung und Inspektion (ISO 10961:2019)

Bouteilles à gaz - Cadres de bouteilles - Conception, fabrication, essais et inspection (ISO 10961:2019)

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**Ta slovenski standard je istoveten z: EN ISO 10961:2019**

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**ICS:**

23.020.35      Plinske jeklenke      Gas cylinders

**SIST EN ISO 10961:2020**      en,fr,de

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EUROPEAN STANDARD

EN ISO 10961

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English Version

## Gas cylinders - Cylinder bundles - Design, manufacture, testing and inspection (ISO 10961:2019)

Bouteilles à gaz - Cadres de bouteilles - Conception,  
fabrication, essais et inspection (ISO 10961:2019)

Gasflaschen - Flaschenbündel - Auslegung, Herstellung,  
Prüfung und Inspektion (ISO 10961:2019)

This European Standard was approved by CEN on 12 November 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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## European foreword

This document (EN ISO 10961:2019) 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of an identical text or by endorsement, at the latest by June 2020, and conflicting national standards shall be withdrawn at the latest by June 2020.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 10961:2012.

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

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.

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The text of ISO 10961:2019 has been approved by CEN as EN ISO 10961:2019 without any modification.

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INTERNATIONAL  
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10961

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2019-11

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**Gas cylinders — Cylinder bundles  
— Design, manufacture, testing and  
inspection**

*Bouteilles à gaz — Cadres de bouteilles — Conception, fabrication,  
essais et inspection*

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## ISO 10961:2019(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](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 4, *Operational requirements of gas cylinders*.

This third edition cancels and replaces the second edition (ISO 10961:2010), which has been technically revised.

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

- the terminology was brought in line with ISO 10286, as far as possible,
- storage was added throughout the document as a possible use case,
- the descriptions of the drop tests were clarified,
- the descriptions of the leak tests were clarified,
- a new figure was added showing the angle for the vertical drop test,
- the rotating drop test has been differentiated by whether the bundle is fitted with cylinders vertically or horizontally,
- the additional requirements for acetylene cylinder bundles were clarified,
- the information for the bundle identification for filling was moved to [Annex C](#).

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 <https://www.iso.org/members.html>.

## Introduction

For some applications, the contents of an individual gas cylinder might not satisfy the gas demand, in which case assemblies of cylinders can be used to supply larger volumes of gas in a single unit. The single unit, which contains a number of cylinders, is known as a cylinder bundle.

Such a cylinder bundle is a portable assembly, designed to be routinely lifted, that consists of a frame and two or more cylinders connected to a manifold by cylinder valves or fittings so that the cylinders can be filled, transported and emptied without disassembly.

A cylinder bundle can be subjected to rough handling in the course of normal operations.

There are types of gas cylinder assemblies that use cylinder bundle components but are designed to be disassembled at each filling to enable the cylinders to be filled individually. Although these assemblies do not conform to the basic definition of a cylinder bundle, they are commonly referred to as bundles. Their special requirements are provided in [Annex A](#).

Acetylene cylinder bundles are often filled without disassembly. The confirmation of solvent content can be achieved with or without disassembling the bundle. Replenishing of solvent is usually done after a defined number of fillings. Their special requirements are provided in [Annex B](#).

In International Standards, weight is equivalent to a force, expressed in Newton. However, in common parlance (as used in terms defined in this document), the word “weight” continues to be used to mean “mass”, but this practice is deprecated (see ISO 80000-4).

This document has been written so that it is suitable to be referenced in the UN *Model Regulations*<sup>[1]</sup>.

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