



SLOVENSKI STANDARD SIST EN ISO 10286:2022

01-januar-2022

Nadomešča:
SIST EN ISO 10286:2015

Plinske jeklenke - Terminologija (ISO 10286:2021)

Gas cylinders - Vocabulary (ISO 10286:2021)

Gasflaschen - Vokabular (ISO 10286:2021)

Bouteilles à gaz - Vocabulaire (ISO 10286:2021)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN ISO 10286:2021

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-f86f157946b9/sist-en-iso-10286-2022>

ICS:

01.040.23	Tekočinski sistemi in sestavni deli za splošno rabo (Slovarji)	Fluid systems and components for general use (Vocabularies)
23.020.35	Plinske jeklenke	Gas cylinders

SIST EN ISO 10286:2022

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 10286:2022

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 10286

November 2021

ICS 01.040.23; 23.020.35

Supersedes EN ISO 10286:2015

English Version

Gas cylinders - Vocabulary (ISO 10286:2021)

Bouteilles à gaz - Vocabulaire (ISO 10286:2021)

Gasflaschen - Vokabular (ISO 10286:2021)

This European Standard was approved by CEN on 25 October 2021.

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.

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.

CEN members are the national standards bodies of 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 United Kingdom.

[SIST EN ISO 10286:2022](https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022)

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10286:2022](https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022)

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>

European foreword

This document (EN ISO 10286:2021) has been prepared by Technical Committee ISO/TC 131 "Fluid power systems" 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 May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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 10286:2015.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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.

Endorsement notice

[https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-](https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022)

[ff6f157946b9/sist-en-iso-10286-2022](https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022)

The text of ISO 10286:2021 has been approved by CEN as EN ISO 10286:2021 without any modification.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10286:2022](https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022)

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>

INTERNATIONAL STANDARD

**ISO
10286**

Fifth edition
2021-11

Gas cylinders — Vocabulary

Gasflaschen — Vokabular

Bouteilles à gaz — Vocabulaire

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 10286:2022](https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022)

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>



Reference number
ISO 10286:2021(E)

© ISO 2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 10286:2022

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>



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
3.1 Terms related to pressure receptacles.....	1
3.1.1 All pressure receptacles.....	1
3.1.2 All gas cylinders.....	4
3.1.3 Composite gas cylinders.....	4
3.1.4 Acetylene cylinders.....	4
3.1.5 Bundles of cylinders, battery vehicles and MEGC.....	5
3.2 Terms related to accessories.....	6
3.3 Terms related to manufacture.....	10
3.4 Terms related to testing and inspection.....	11
3.5 Terms related to characteristics, properties and pressures.....	13
Annex A (informative) Pressure system for pressure receptacles.....	19
Annex B (informative) Terms of Clause 3 and additional terminology — Equivalent terms in French and German.....	20
Annex C (informative) Figures related to the additional terminology given in Annex B.....	37
Bibliography.....	50

SIST EN ISO 10286:2022
<https://standards.iteh.ai/catalog/standards/sist/c2700db4-f9fa-4538-a5c7-ff6f157946b9/sist-en-iso-10286-2022>

ISO 10286:2021(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).

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*, 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 fifth edition cancels and replaces the fourth edition (ISO 10286:2015), of which it constitutes a minor revision. The changes are as follows:

- changes to the formatting and structure throughout;
- editorial changes to fully align with the rules in ISO/IEC Directives Part 2.

In addition to text written in the official ISO languages (English, French), this document gives text in German. This text is published under the responsibility of the Member Body for Germany (DIN) and is given for information only. Only the text given in the official languages can be considered as ISO text.

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

The terms and definitions in this document are given in the following layout:

preferred term(s)	in bold typeface
admitted term(s)	or synonyms, in normal typeface
DEPRECATED: deprecated term	deprecated term(s), in normal typeface, with the designation “DEPRECATED”:
definition	the definition, where available, in normal typeface
Note 1 to entry:	notes to entry, cross-references and examples.
Figures/non-verbal representations	

The terms in this document are sorted in systematic order as far as possible. Further guidance on terminological presentation can be found in ISO 10241-1.

The definitions support the understanding of the terms used in this document. They have been prepared with due regard to possible uses in different fields related to gas cylinders. However, it is possible that they will require adaption for particular uses.

Within this document, the term “ADR” is for simplification used as to also include similar regulations such as RID and ADN, where appropriate.

This document has been written so that it is suitable to be referenced in the UN Model Regulations^[4].

[Table 1](#) shows a hierarchical overview of pressure receptacles according to the UN Model Regulations.

[Annex A](#) shows the different pressures for pressure receptacles in relation to each other.

[Annex B](#) shows a table including equivalent terms for additional terminology.

[Annex C](#) shows figures related to the additional terminology given in [Annex B](#).

Terms given in square brackets are not within the scope of this document. They are shown for information only.

Table 1 — Hierarchical overview of terms for pressure receptacles

		pressure receptacle								
battery vehicle ^d	small receptacle containing gas (gas cartridge) and aerosol dispenser	MEGC (multiple-element gas container)	cylinder	tube	pressure drum	bundle of cylinders	salvage pressure receptacle	[closed cryogenic receptacle ^b]	[metal-hydride storage system ^c]	[tank ^a]
^a	In scope of CEN/TC 296 and CEN/TC 286.									
^b	In scope of ISO/TC 220.									
^c	In scope of ISO/TC 197.									
^d	This designation is used in the ADR.									
NOTE Within this document, for simplification, the use of the term "ADR" also includes similar regulations such as RID and ADN, where appropriate.										

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 10286:2022

<https://standards.iteh.ai/catalog/standards/sist/c2700db4-19fa-4538-a5c7-d157946b9/sist-en-iso-10286-2022>

Gas cylinders — Vocabulary

1 Scope

This document defines terms for gas cylinders.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

3.1 Terms related to pressure receptacles

3.1.1 All pressure receptacles

3.1.1.1

pressure receptacle

DEPRECATED: receptacle SIST EN ISO 10286:2022
standards.iteh.ai/catalog/standards/sist/c2700db4-19fa-4538-a5c7-
closed cryogenic receptacle, metal-hydride storage system, bundle of
cylinders or salvage pressure receptacle

EXAMPLE Seamless gas cylinder:



3.1.1.2

gas cylinder cylinder

transportable pressure receptacle of a water capacity not exceeding 150 l

Note 1 to entry: In ISO/TC 58 standards, the term “gas cylinder” is frequently used for clarification.

ISO 10286:2021(E)

3.1.1.3

tube

seamless transportable pressure receptacle of a water capacity exceeding 150 l but not more than 3 000 l

Note 1 to entry: In ISO/TC 58, standards for composite tubes also with a higher water capacity are under development.

3.1.1.4

pressure drum

welded transportable pressure receptacle of a water capacity exceeding 150 l and of not more than 1 000 l

3.1.1.5

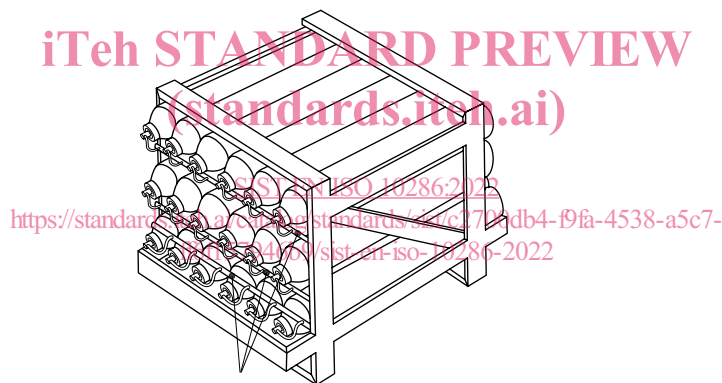
bundle of cylinders

cylinder bundle

DEPRECATED: cylinder pack

assembly of cylinders that are fastened together and which are interconnected by a manifold and transported as a unit having a total water capacity not exceeding 3 000 l except that bundles intended for the transport of toxic gases shall be limited to 1 000 l total water capacity

EXAMPLE



Note 1 to entry: In ISO/TC 58 standards, the term “bundle” is frequently used for simplification.

3.1.1.6

salvage pressure receptacle

pressure receptacle with a water capacity not exceeding 1 000 l into which are placed damaged, defective, leaking or non-conforming pressure receptacle(s) for the purpose of transport, e.g. for recovery or disposal

3.1.1.7

small receptacle containing gas

gas cartridge

non-refillable receptacle having a water capacity not exceeding 1 000 ml for receptacles made of metal and not exceeding 500 ml for receptacles made of synthetic material or glass, containing under pressure a gas or mixture of gases

Note 1 to entry: This definition is used in the ADR only. There is no definition in the UN Model Regulations.

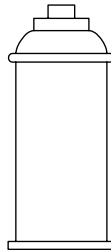
Note 2 to entry: This note applies to the German language only.

3.1.1.8 aerosol dispenser

aerosol

non-refillable receptacle made of metal, glass or plastics and containing a gas, compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder and fitted with a release device allowing the contents to be ejected

EXAMPLE



Note 1 to entry: This note applies to the German language only.

3.1.1.9 metal-hydride storage system

single complete hydrogen storage system, including a receptacle, metal hydride, pressure relief device, shut-off valve, service equipment and internal components used for the transport of hydrogen only

3.1.1.10 cryogenic receptacle

transportable thermally insulated receptacle for refrigerated liquefied gases, of a water capacity of not more than 1 000 l

3.1.1.11 MEGC

multiple-element gas container

multimodal assembly of cylinders, tubes or bundles of cylinders which are interconnected by a manifold and assembled within a framework, including service equipment and structural equipment necessary for the transport of gases

Note 1 to entry: This definition is taken from the UN Model Regulations. ADR uses a different definition.

3.1.1.12 battery vehicle

vehicle containing elements which are linked to each other by a manifold and permanently fixed to a transport unit

Note 1 to entry: The following elements are considered to be elements of a battery-vehicle: cylinders, tubes, bundles of cylinders and pressure drums, as well as certain tanks destined for the carriage of gases with a capacity of more than 450 l.

Note 2 to entry: This term is used in the ADR only. There is no definition in the UN Model Regulations.

3.1.1.13 tank

portable tank, including a tank container, a road tank-vehicle, a rail tank-wagon or a receptacle to contain solids, liquids or gases, having a capacity of not less than 450 l when used for the transport of gases

Note 1 to entry: This definition is taken from the UN Model Regulations. ADR uses a different definition.