# SLOVENSKI STANDARD
# SIST EN ISO 22435:2024

**01-oktober-2024**

**Nadomešča:**
**SIST EN ISO 22435:2009**
**SIST EN ISO 22435:2009/A1:2013**

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**Plinske jeklenke - Ventili za jeklenke z vgrajenim regulatorjem tlaka - Specifikacija in preskus tipa (ISO 22435:2024)**

Gas cylinders - Cylinder valves with integrated pressure regulators - Specification and type testing (ISO 22435:2024)

Gasflaschen - Flaschenventile mit integriertem Druckminderer - Spezifikation und Baumusterprüfungen (ISO 22435:2024)

Bouteilles à gaz - Robinets de bouteilles avec détendeur intégré - Spécifications et essais de type (ISO 22435:2024)

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**Ta slovenski standard je istoveten z:** **EN ISO 22435:2024**

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**ICS:**

| | | |
|---|---|---|
| 23.020.35 | Plinske jeklenke | Gas cylinders |
| 23.060.40 | Tlačni regulatorji | Pressure regulators |

**SIST EN ISO 22435:2024** **en,fr,de**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN ISO 22435

April 2024

ICS 23.060.40; 23.020.35

Supersedes EN ISO 22435:2007, EN ISO 22435:2007/A1:2012

English Version

# Gas cylinders - Cylinder valves with integrated pressure regulators - Specification and type testing (ISO 22435:2024)

Bouteilles à gaz - Robinets de bouteilles avec détendeur intégré - Spécifications et essais de type (ISO 22435:2024)

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This European Standard was approved by CEN on 8 March 2024.

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

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## European foreword

This document (EN ISO 22435:2024) 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of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

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.

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The text of ISO 22435:2024 has been approved by CEN as EN ISO 22435:2024 without any modification.

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International Standard

ISO 22435

# Gas cylinders — Cylinder valves with integrated pressure regulators — Specification and type testing

*Bouteilles à gaz — Robinets de bouteilles avec détendeur intégré — Spécifications et essais de type*

Second edition
2024-03

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Reference number
ISO 22435:2024(en)

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Published in Switzerland

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# Foreword

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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 document 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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This document was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*, 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 second edition cancels and replaces the first edition (ISO 22435:2007), which has been technically revised. It also incorporates the Amendment ISO 22435:2007/Amd. 1:2012.

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The main changes are as follows:

— Introduction: clarification that this document gives additional requirements to those specified in ISO 10297, ISO 17871, ISO 17879 and ISO 23826, unless specifically mentioned.

— Scope:

  — requirements in this document are in addition to those specified in ISO 10297, ISO 17871, ISO 17879 and ISO 23826, unless specifically mentioned;

  — clarification of different VIPR types with different positions of primary operating mechanism within the valve;

  — exclusion of VIPRs for liquefied petroleum gas (LPG) and cryogenic applications.

— Terms and definitions: definition of a primary valve operating mechanism.

— Introduction of VIPR types A, B and C for easy referencing of different design types.

— Symbols and descriptions:

  — clarification of inlet pressure to the regulating function $p_1$ and valve test pressure for different gas types;

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- additional characteristic column in table with link to test method, if relevant.

- Design requirements and considerations:
  - general: VIPRs to comply with the relevant closure standards;
  - materials: lubricant requirements given in relevant closure standard;
  - pressure and flow indicating devices: relevant pressure indicator requirements in this document;
  - cylinder connection: subclause removed;
  - main shut-off valve: subclause removed because requirements already given in relevant closure standard;
  - pressure adjusting device: addition of a new subclause;
  - leakage: total external and internal leakage shall not exceed 12 $cm^3/h$;
  - mechanical strength: mechanical strength of inlet side moved to relevant closure standard;
  - resistance to ignition: moved to ISO 10297;
  - resilience to ignition: addition of a new subclause;
  - resistance to vibration and resistance to shock: addition of two new subclauses.
- Type testing:
  - general: clarification of changes to the VIPR design that require repetition of type tests;
  - test schedule: table reformatted for relevant tests;
  - test method for accuracy of VIPR with flowmeter: reference standard changed to ISO 2503;
  - test methods for leakage: test for regulating device only;
  - test method for the endurance test of the VIPR with the pressure regulator valve acting as primary valve operating mechanism: moved to ISO 10297;
  - test method for endurance of the filling connection closing device: moved to ISO 10297;
  - test method for VIPR pressure regulator endurance test: addition of new test.
- Removal of previous Annex A "Valve impact test" and Annex B "Endurance test", because both are already given in relevant closure standards.
- Addition of new Annexes A, B, C and D.

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