

SLOVENSKI STANDARD
SIST EN ISO 2503:1999**01-december-1999****Nadomešča:**
SIST EN 585:1995

Oprema za plamensko varjenje - Regulatorji tlaka za plinske jeklenke za varjenje, rezanje in sorodne postopke do 300 bar (ISO 2503:1998)

Gas welding equipment - Pressure regulators for gas cylinders used in welding, cutting and allied processes up to 300 bar (ISO 2503:1998)

Druckminderer für Gasflaschen für Schweißen, Schneiden und verwandte Verfahren bis 300 bar (ISO 2503:1998)

Matériel de soudage aux gaz - Détendeurs pour bouteilles de gaz utilisés pour le soudage, le coupage et les techniques connexes jusqu'à 300 bar (ISO 2503:1998)

Ta slovenski standard je istoveten z: EN ISO 2503:1998**ICS:**

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23.060.40	Tlačni regulatorji	Pressure regulators
25.160.30	Varilna oprema	Welding equipment

SIST EN ISO 2503:1999**en**

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EUROPEAN STANDARD

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English version

Gas welding equipment - Pressure regulators for gas cylinders used in welding, cutting and allied processes up to 300 bar (ISO 2503:1998)

Matériel de soudage aux gaz - Détendeurs pour bouteilles de gaz utilisés pour le soudage, le coupage et les techniques connexes jusqu'à 300 bar (ISO 2503:1998)

This European Standard was approved by CEN on 4 March 1998.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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EN ISO 2503:1998

Foreword

The text of the International Standard ISO 2503:1998 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS.

This European Standard supersedes EN 585:1994.

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 1998, and conflicting national standards shall be withdrawn at the latest by October 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 2503:1998 was approved by CEN as a European Standard without any modification.

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INTERNATIONAL ORGANIZATION OF STANDARDIZATION

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Gas welding equipment — Pressure regulators for gas cylinders used in welding, cutting and allied processes up to 300 bar

*Matériel de soudage au gaz — Détendeurs pour bouteilles de gaz utilisés
pour le soudage, le coupage et les techniques connexes jusqu'à 300 bar*

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ISO 2503:1998(E)

ISO 2503:1998(E)

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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International Standard ISO 2503, was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 8, *Equipment for gas welding, cutting and allied processing*.

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<https://standards.iteh.ai/catalog/standards/sist/en-iso-2503-1999> This second edition cancels and replaces the first edition (ISO 2503:1983), which has been technically revised.

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Gas welding equipment — Pressure regulators for gas cylinders used in welding, cutting and allied processes up to 300 bar

1 Scope

This International Standard specifies requirements for single or two-stage pressure regulators for connections to gas cylinders normally used for compressed gases up to 300 bar¹⁾ (30 MPa), for dissolved acetylene, for liquefied petroleum gases (LPG), methylacetylene-propadiene-mixtures (MPS) and carbon dioxide (CO₂) used in welding, cutting and allied processes.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All Standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

[SIST EN ISO 2503:1999](https://standards.iteh.ai/catalog/standards/sist/972858ef-89ed-4beb-a406-f45250712edc/sist-en-iso-2503-1999)

ISO 554:1976, *Standard atmospheres for conditioning and/or testing — Specifications.*

ISO 3253:1998, *Gas welding equipment — Hose connections for equipment for welding, cutting and related processes.*

ISO 5171:1995, *Pressure gauges used in welding, cutting and allied processes.*

ISO/TR 7470:1988, *Valve outlets for gas cylinders — List of provisions which are either standardized or in use.*

ISO 9090:1989, *Gas tightness of equipment for gas welding and allied processes.*

ISO 9539:1988, *Materials for equipment used in gas welding, cutting and allied processes.*

3 Definition

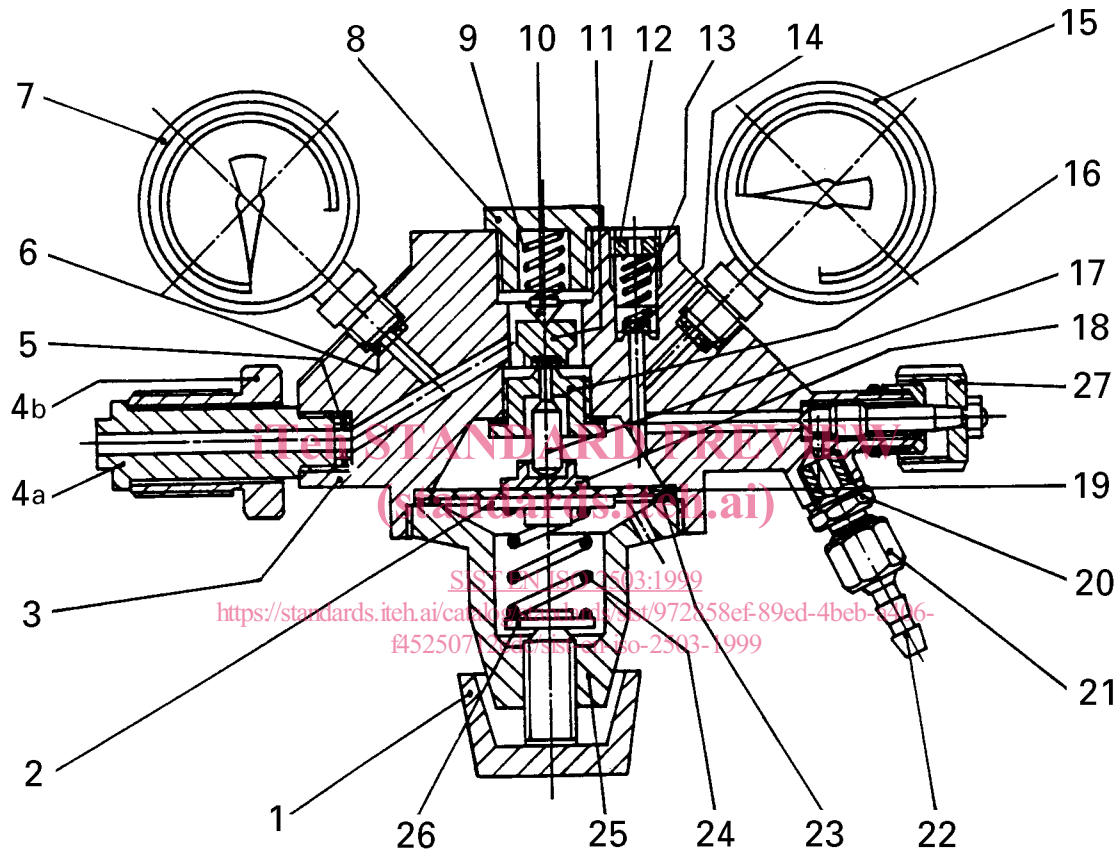
For the purposes of this International Standard, the following definition applies.

3.1 pressure regulator: Device for regulating a generally variable inlet pressure to an as constant as possible outlet pressure.

1) 300 bar relates to maximum cylinder charging pressure at 15 °C.

4 Terminology

The terms relating to pressure regulators are given in the key to figure 1 given in table 1. The diagram of the pressure regulator is an example only.



NOTES

- 1 Parts 12, 13 and 14 are components of the relief valve
- 2 Part 27 is an outlet valve and its installation is optional, see 6.2.4.
- 3 Parts 4a and 4b of the drawing are examples and are not specified. Other types of inlet connection pieces are also in use.

Figure 1 — Diagram of a pressure regulator and designation of its components

Table 1 — List of terms

No.	English	French	German
1	pressure adjusting screw	vis de réglage	Einstellschraube
2	spring plate	plateau de membrane	Federteller
3	body	corps	Körper
4a	inlet stem	raccord d'entrée	Eingangsstutzen
4b	inlet nut	écrou flottant raccord d'entrée	Schraubverbindung
5	inlet filter	filtre d'entrée	Eintrittsfilter
6	seating washer	joint de manomètre	Manometeranschluß- Dichtungsring
7	high-pressure gauge	manomètre haute pression (amont)	Hochdruckmanometer
8	pressure regulator valve cap	bouchon de clapet	Regelventilkappe
9	pressure regulator valve spring	ressort de clapet	Regelventilfeder
10	spring centre	appui mobile de centrage du ressort de clapet	Regelventil-Federteller
11	pressure regulator valve	clapet	Regelventil
12	relief valve cap	vis de réglage de la soupape de sécurité	Einstellschraube des Abblaseventils
13	relief valve spring	ressort de soupape de sécurité	Feder für Abblaseventil
14	relief valve seat	clapet de soupape de sécurité	Abblaseventilsitz
15	low-pressure gauge	manomètre basse pression (aval)	Niederdruckmanometer
16	pressure regulator valve seat	siège	Regelventilsitz
17	pressure regulator valve pin	poussoir	Regelventilstift
18	diaphragm plate	plateau d'appui du poussoir	Membranteller
19	diaphragm	membrane	Membran
20	outlet connection piece	raccord de sortie (mamelon fileté)	Abgangsstutzen
21	union nut	écrou de douille	Überwurfmutter
22	hose tail	douille porte-tuyau	Schlauchtülle
23	diaphragm seal	joint de membrane	Membrangleitring
24	pressure regulator spring	ressort de détente	Stellfeder
25	pressure regulator cover	couvercle	Federdeckel
26	pressure regulator spring plate	appui mobile de centrage du ressort de détente	Stellfederteller
27	outlet valve	robinet de sortie	Absperrventil