



**SLOVENSKI STANDARD**  
**SIST-TS CEN/TS 13259:2024**

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**Nadomešča:**  
**SIST-TP CEN/TR 13259:2013**

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**Oprema za plamensko varjenje - Ročni in strojni gorilniki za industrijsko uporabo za plamensko segrevanje, spajkanje in sorodne postopke**

Gas welding equipment - Industrial manual and machine blowpipes for flame heating, flame brazing and allied processes

Gasschweißgeräte - Handgeführte Sonderbrenner und Maschinenbrenner für industrielle Prozesse zum Flammwärmen, Flammlöten und für verwandte Prozesse

Matériel de soudage aux gaz - Chalumeaux manuels et automatiques à usage industriel, pour le chauffage à la flamme, le brasage à la flamme et les techniques connexes

**Ta slovenski standard je istoveten z: CEN/TS 13259:2023**

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**ICS:**

25.160.30      Varilna oprema      Welding equipment

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
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# CEN/TS 13259

November 2023

ICS 25.160.30

Supersedes CEN/TR 13259:2013

English Version

## Gas welding equipment - Industrial manual and machine blowpipes for flame heating, flame brazing and allied processes

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This Technical Specification (CEN/TS) was approved by CEN on 22 October 2023 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## CEN/TS 13259:2023 (E)

### European foreword

This document (CEN/TS 13259:2023) has been prepared by Technical Committee CEN/TC 121 “Welding and allied processes” the secretariat of which is held by DIN.

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 CEN/TR 13259:2013.

The main changes compared to the previous edition CEN/TR 13259:2013 are listed below:

- the type of deliverable was changed to CEN/TS;
- the wording of the whole document was updated and clarified;
- in Clause 2 the normative references were updated;
- 5.4 and Figure 9 were added;
- with 11.6.2 an extinguishing behaviour test was added;
- with 11.6.4 a nozzle flow velocity test was added.

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

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: 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, Türkiye and the United Kingdom.

## **Introduction**

Requests for official interpretations of any aspect of this document should be directed to the Secretariat of CEN/TC 121/WG 19 via national standardization body.

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## CEN/TS 13259:2023 (E)

### 1 Scope

This document refers to manual blowpipes and stationary machine blowpipes with free burning flames for heat treatment of work pieces. These blowpipes are, due to their type of construction, designed for special applications and do not fall under the scope of EN ISO 5172:2006<sup>1</sup> and EN ISO 9012:2011.

This document does not apply to manual and machine cutting blowpipes according to EN ISO 5172:2006<sup>1</sup>.

This document contains technical regulations, specifications and tests.

Blowpipes are intended for gaseous fuels in connection with oxygen, compressed air or aspirated air.

Flow rates are not expressly limited and depend on the thermal process to be performed.

### 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.

EN ISO 5172:2006<sup>1</sup>, *Gas welding equipment — Blowpipes for gas welding, heating and cutting — Specifications and tests (ISO 5172:2006)*

EN ISO 9012:2011, *Gas welding equipment — Air-aspirated hand blowpipes — Specifications and tests (ISO 9012:2008)*

EN ISO 9539, *Gas welding equipment — Materials for equipment used in gas welding, cutting and allied processes (ISO 9539)*

EN ISO 15296, *Gas welding equipment — Vocabulary (ISO 15296)*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 5172:2006<sup>1</sup>, EN ISO 9012:2011, EN ISO 15296 and the following apply.

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

##### **manual blowpipe**

blowpipe, manually ignited, monitored and guided by the operator or fixed to a mechanical device

#### 3.2

##### **machine blowpipe**

blowpipe, which for operation is fixed to a mechanical device and guided by it; it is manually monitored, wherein specific operating elements may have been mechanized

#### 3.3

##### **automatic machine blowpipe**

blowpipe, which is operated and monitored by PLC (Programmable Logic Controller) devices

<sup>1</sup> As impacted by EN ISO 5172:2006/A1:2012 and EN ISO 5172:2006/A2:2015.



### 3.4 blowpipe head

Note 1 to entry: See Annex C for figures of the types of blowpipe heads and their applications.

#### 3.4.1

##### **single flame blowpipe head**

flame field of the blowpipe which consists of one flame

Note 1 to entry: For fuel gases with a low flame propagation rate, the single flame can be supported by concentrically arranged stabilizing flames.

#### 3.4.2

##### **multi-flame blowpipe head**

flame field from the blowpipe head which consists of one or more concentric flame circles

#### 3.4.3

##### **twin head blowpipe head**

blowpipe with two burner heads, which is supplied by one mixing device

Note 1 to entry: Several blowpipe nozzles enclose the work piece.

#### 3.4.4

##### **single row blowpipe head**

flame field from the blowpipe head is composed of one row of flames

Note 1 to entry: Flame openings are in-line with the blowpipe head.

#### 3.4.5

##### **multi row blowpipe head**

flame field from the blowpipe head which is composed of several flame rows, the number and position of which depend on the specific intended use

#### 3.4.6

##### **single row nozzle blowpipe head**

flame field from the blowpipe head which is composed of several exchangeable single nozzles applying linear heat to the work piece

#### 3.4.7

##### **multi row nozzle blowpipe head**

flame field from the blowpipe head which consists of several exchangeable single nozzles which form the flame field

#### 3.4.8

##### **profile blowpipe head**

flame field blowpipe with a blowpipe geometry and shape depending on the intended use

#### 3.4.9

##### **ring blowpipe head**

flame field from the blowpipe which circularly encloses or covers the work piece

#### 3.4.10

##### **flame-hardening blowpipe head**

flame field from the blowpipe with integrated quenching shower which is adapted to the work piece

**CEN/TS 13259:2023 (E)****3.4.11****air-aspirated blowpipe head**

blowpipe in which the fuel gas leaves the injector in the gaseous phase, being subsequently mixed in the mixing zone with a sufficient quantity of air, aspirated from the ambient atmosphere, to produce a technically usable flame

Note 1 to entry: Regulation of the burner capacity is made by closing or opening the air supply and adjusting the fuel gas pressure.

[SOURCE: EN ISO 9012:2011, 3.1]

**3.4.12****blowpipe head with external mixing**

blowpipe head in which oxygen and fuel gas are separately passed through the blowpipe head

Note 1 to entry: Mixing takes place outside the blowpipe head and forms, as necessary, the flame field.

**3.4.13****nozzle mixing blowpipe head**

blowpipe head in which oxygen and fuel gas are mixed inside the heating nozzle according to the injector principle

Note 1 to entry: See Figure 2. Each gas orifice outlet is supplied by an injector.

**3.4.14****microjet blowpipe head**

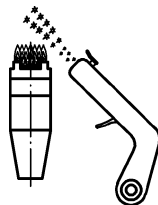
blowpipe head in which the flame field is made of small very close flame bores

Note 1 to entry: According to the type of application, one or several parallel bore rows are used.

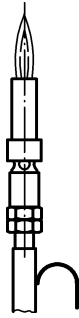
**3.5****ignition device**

separate energy source inside or at the blowpipe ensuring the safe ignition of fuel gas mixtures escaping from the orifice outlets

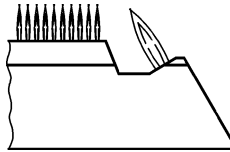
Note 1 to entry: See Figure 1.



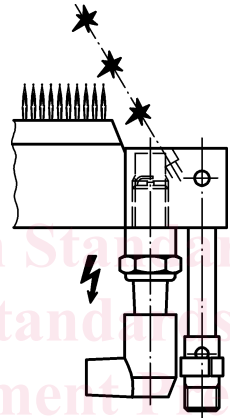
**a) Ignition aid**



**b) Ignition torch**



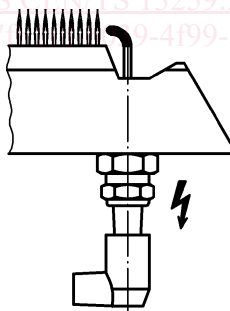
**c) Ignition flame at the blowpipe**



**d) Ignition with electrically ignited fuel gas/air mixture**

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**e) Electric ignition and monitoring from the blowpipe with ignition plug**