SLOVENSKI STANDARD
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Ročne pipe za plinske aparate

Manually operated taps for gas burning appliances

Handbetätigte Einstellgeräte für Gasgeräte

Robinets a commande manuelle pour appareils utilisant les combustibles gazeux

Ta slovenski standard je istoveten z: **EN 1106:2001**

ICS:

23.060.99	Drugi ventili	Other valves
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SIST EN 1106:2002 **en**

EUROPEAN STANDARD
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English version

Manually operated taps for gas burning appliances

Robinets à commande manuelle pour appareils utilisant les combustibles gazeux

Handbetätigte Einstellgeräte für Gasgeräte

This European Standard was approved by CEN on 29 June 2000.

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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 Management Centre has the same status as the official versions.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 58 "Safety and control devices for gas-burners and gas-burning appliances", 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of an identical text or by endorsement, at the latest by July 2001, and conflicting national standards shall be withdrawn at the latest July 2001.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

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.

This European Standard covers type testing only.

1 Scope

This European Standard specifies the safety, construction and performance requirements for manually operated taps and pre-setting devices for gas burning appliances. It also gives the test procedures for evaluating these requirements and information necessary for the purchaser and the user.

This standard applies to control taps with a declared operating pressure up to and including 200 mbar for use in appliances for use with gases in accordance with EN 437.

This standard does not apply to manually operated shut-off valves conforming to EN 331.

The methods of test given in this standard are intended for product type testing. Tests intended for production testing are not specifically included.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publications referred to applies (including amendments).

EN 549 : 1994	Rubber materials for seals and diaphragms for gas appliances and gas equipment
EN 60730-1 : 1995	Automatic electrical controls for household and simular use - Part 1: General requirements (IEC 730-1 : 1993, modified)
ISO 7-1 : 1994	Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation
ISO 65 : 1981	Carbon steel tubes suitable for screwing in accordance with ISO 7-1
ISO 228-1 : 2000	Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation
ISO 262 : 1998	ISO general purpose metric screw threads - Selected sizes for screws, bolts and nuts

ISO 274 : 1975	Copper tubes of circular section - Dimensions
ISO 301 : 1981	Zinc alloy ingots intended for casting
ISO 1817 : 1999	Rubber, vulcanized - Determination of the effect of liquids
ISO 7005	Metallic flanges

3 Terms and definitions

For the purposes of this standard the following terms and definitions apply :

3.1 general

NOTE Parts commonly used in taps are shown as examples in Figures 1 to 5.

3.1.1
control taps
directly or indirectly manually operated devices with one or more outlets for the control of the flow of gas from an off to an on position and vice versa

Key

1 Body
2 Plug
3 Latch pin
4 Operating spindle
5 Flats for handle
6 Latch pin guide
7 Spring for operating spindle
8 Main gas inlet
9 Bearing seal
10 Gas outlet
11 Reduced flow rate gas inlet
12 Reduced flow rate gasway
13 Overlapping seal
14 Sealing ring
15 Restricting screw
16 Sealing screw for pre-setting screw
17 Pre-setting screw
18 Tap
19 Reduced flow rate screw
20 Gas outlet

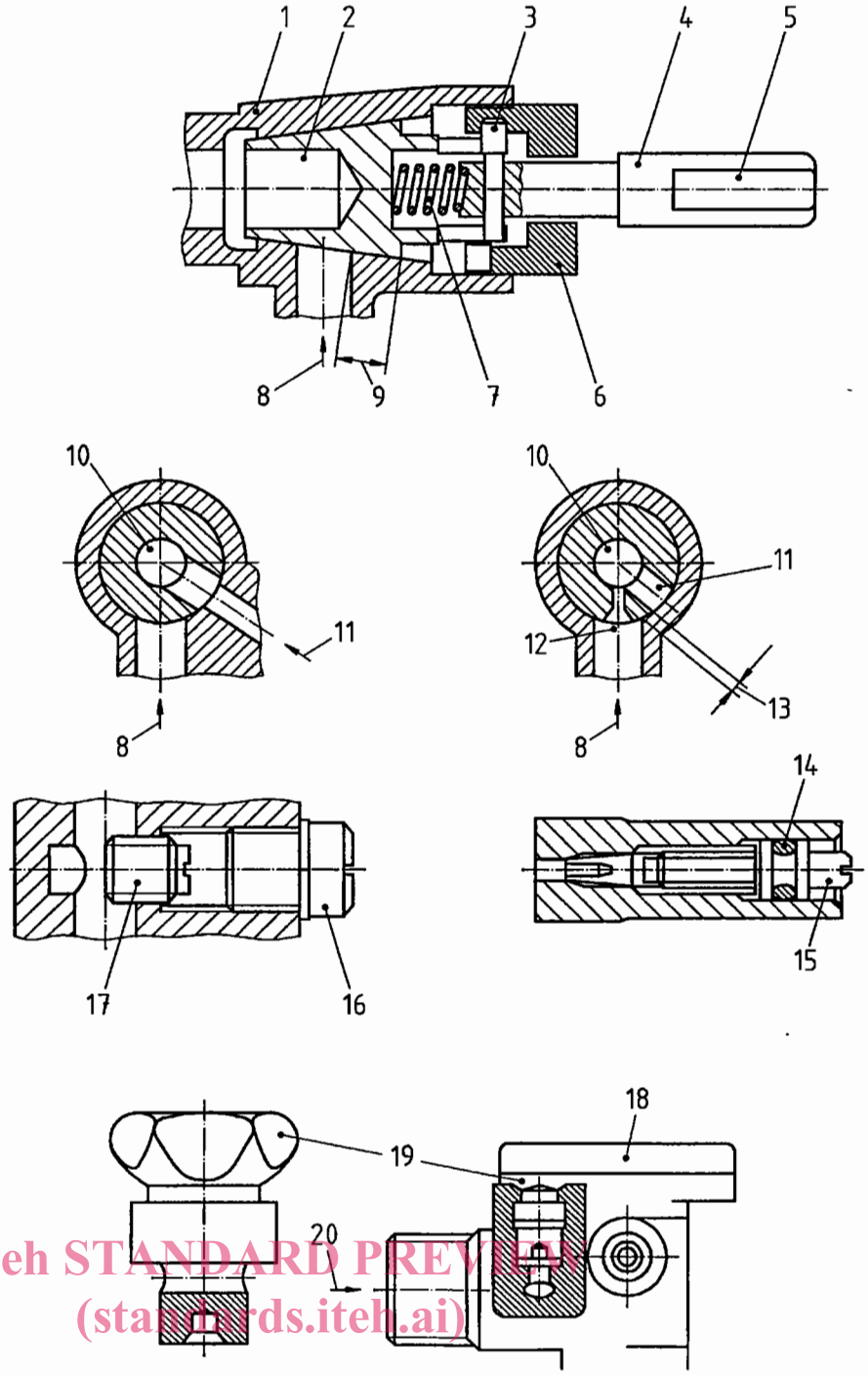
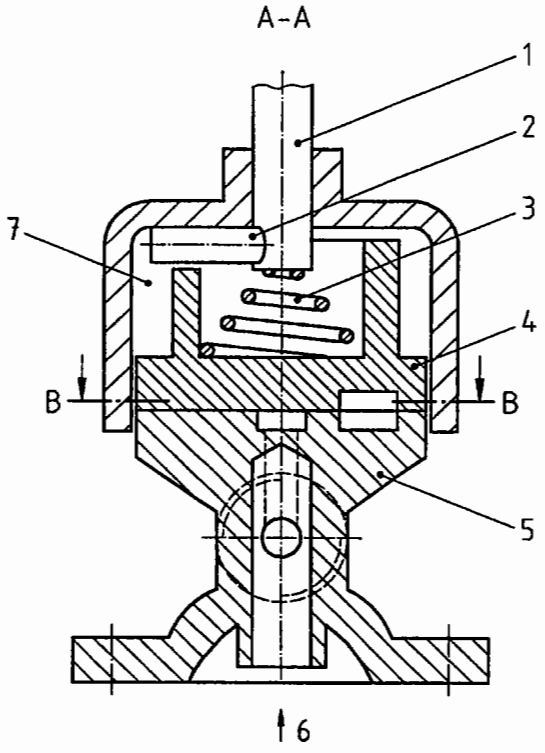


Figure 1 — Taper plug tap

Key

1 Operating spindle
2 Latch pin
3 Spring for operating spindle
4 Disc
5 Body
6 Inlet
7 Latch pin guide
8 Outlet



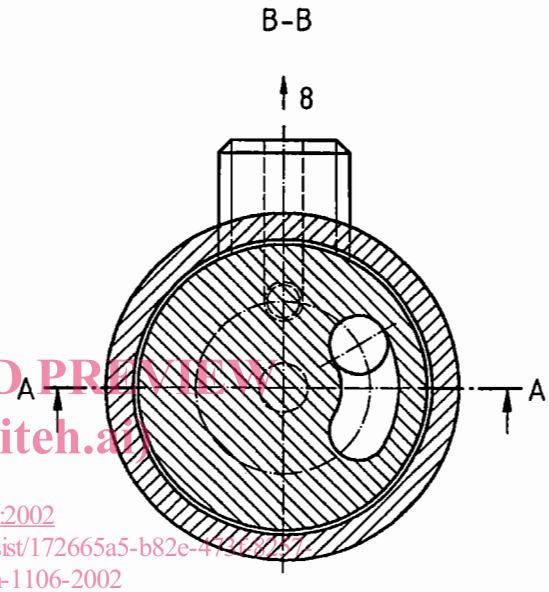


Figure 2 — Disc tap

Key

1 Operating spindle
2 Valve rod
3 Washer
4 Spindle stop
5 Tap body
6 In
7 Disk spring
8 Tap disk
9 O-ring seal
10 Spring for operating spindle

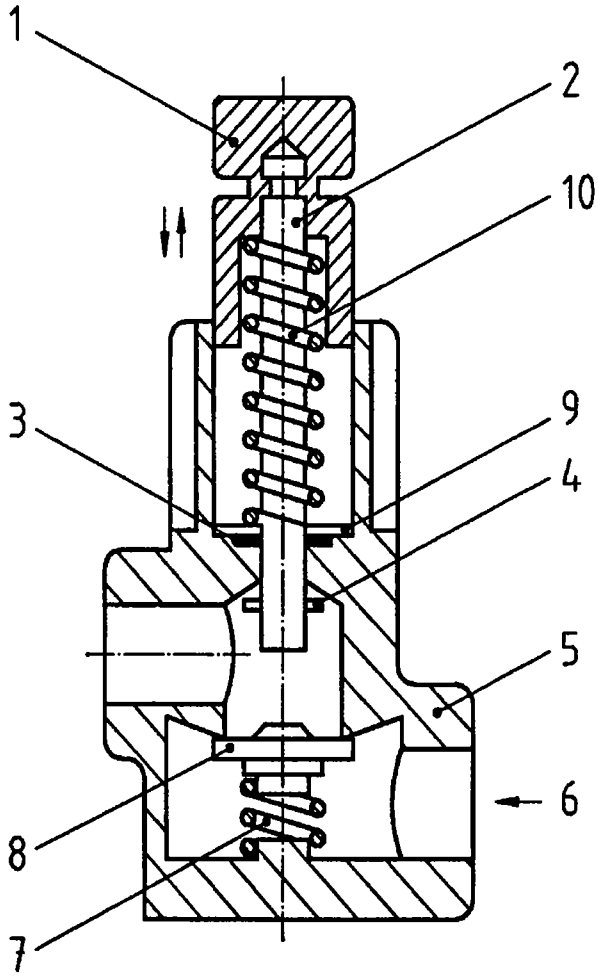


Figure 3 — Linear disc tap

Key

1 Operating spindle
2 Latch pin guide
3 Adjustable stop
4 Plug seal
5 Body
6 Plug
7 Spring for operating spindle
8 Latch pin
9 Flat(s) for handle
10 Gas outlet
11 Main flow rate gasway
12 Reduced flow rate gasway

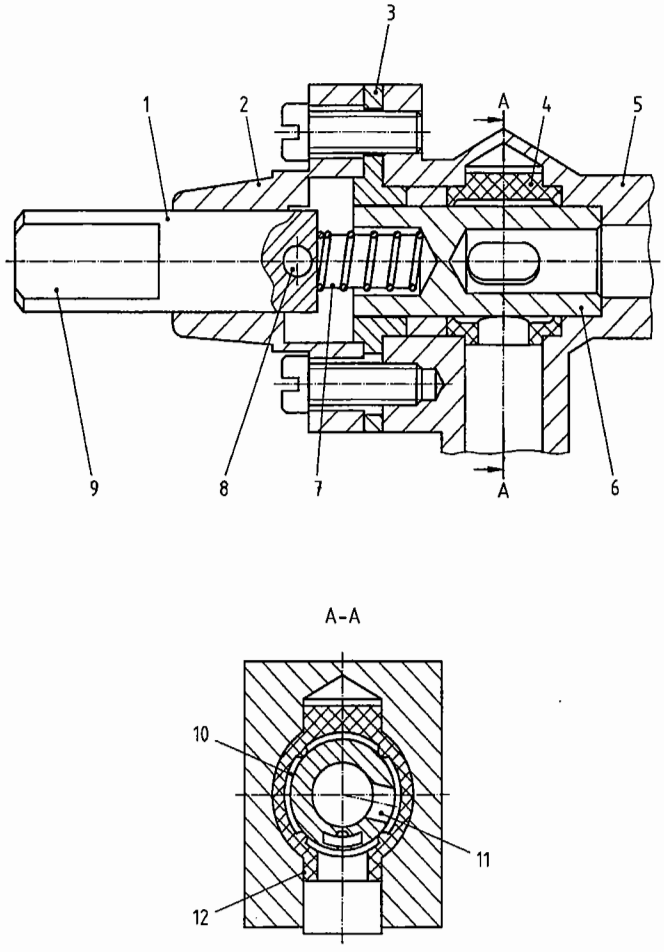


Figure 4 — Parallel plug tap

Key

1 latch pin
2 seal
3 body
4 Needle
5 Gas inlet

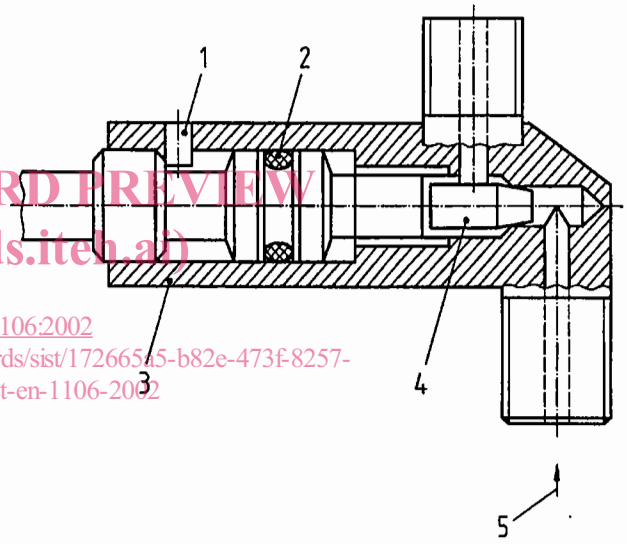


Figure 5 — Needle valve

3.1.2
gas rate pre-setting device
device for pre-setting the gas rate to a given value. The setting can be either discontinuous (by change of calibrated orifices) or continuous (by setting screw)

3.2 leak-tightness

3.2.1
external leak-tightness
leak-tightness of a gas-carrying compartment with respect to atmosphere

3.2.2
internal leak-tightness
leak-tightness of the closure member (in the closed position) sealing a gas-carrying compartment with respect to another compartment or to the outlet of the tap

3.3 pressures

3.3.1
inlet pressure
pressure at the inlet of the tap

3.3.2
outlet pressure
pressure at the outlet of the tap

3.3.3
test pressure
pressure to be applied during testing (specified in the test conditions)

3.3.4
operating pressure
highest inlet pressure, declared by the manufacturer, up to which the tap may be used

3.3.5
pressure difference
difference between inlet and outlet pressures depending on the flow rate with the closure member fully open

3.4 flow rate
volume flowing through the tap in unit time

3.5
rated flow rate
flow rate of air under standard conditions of temperature and pressure declared by the manufacturer

3.6
flow rate curve
curve which indicates the air flow in relation to the angle of opening

3.7
temperatures

3.7.1
maximum ambient temperature
highest temperature of the surrounding air declared by the manufacturer at which the tap may be used

3.7.2
minimum ambient temperature
lowest temperature of the surrounding air declared by the manufacturer at which the tap may be used

3.8
closure member
part of the tap which releases, varies or shuts-off a flow rate

3.9
standard conditions
the standard conditions for air and gas are 15 °C, 1013 mbar, dry

3.10
bearing seal
shortest distance between gas-carrying parts and the atmosphere measured along the length of the sealing surfaces

4 Classification and designation

4.1 Number of operations

Taps are classified in three classes according to the number of operations that may be expected during the life of the appliance:

- 5 000 operations (e.g. central heating boilers);
- 10 000 operations (e.g. space heaters);
- 40 000 operations (e.g. domestic hot plates).

4.2 Groups of taps

Taps are classified as group 1 or group 2 according to the bending stresses that they are required to withstand (see Table 1).

Group 1tap: A tap intended for use in a gas appliance and/or installation where it is not subjected to bending stresses imposed by installation pipework, e.g. by the use of rigid adjacent supports.

Group 2tap: A tap for use in any situation, either internal or external to the gas appliance, typically without support.

NOTE A tap that conforms to the requirements for group 2 also conforms to the requirements for group 1.