



**SLOVENSKI STANDARD**  
**SIST EN 15182-4:2007**

**01-julij-2007**

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Hand-held branchpipes for fire service use - Part 4: High pressure branchpipes PN 40

Strahlrohre für die Brandbekämpfung - Teil 4: Hochdruckstrahlrohre PN 40

Lances a main destinées aux services d'incendie et de secours - Partie 4 : Lances haute pression PN 40

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**Ta slovenski standard je istoveten z: EN 15182-4:2007**

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**ICS:**

13.220.10      Gašenje požara      Fire-fighting

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ICS 13.220.10

English Version

## Hand-held branchpipes for fire service use - Part 4: High pressure branchpipes PN 40

Lances à main destinées aux services d'incendie et de secours - Partie 4 : Lances haute pression PN 40

Strahlrohre für die Brandbekämpfung - Teil 4: Hochdruckstrahlrohre PN 40

This European Standard was approved by CEN on 23 December 2006.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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## Foreword

This European Standard (EN 15182-4:2007) has been prepared by Technical Committee CEN/TC 192 "Fire service equipment", 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 August 2007, and conflicting national standards shall be withdrawn at the latest by August 2007.

EN 15182 consists of the following parts, under the general title *Hand-held branchpipes for fire service use*:

- *Part 1 : Common requirements;*
- *Part 2 : Combination branchpipes PN 16;*
- *Part 3 : Smooth bore jet and/or one fixed spray jet angle branchpipes PN 16;*
- *Part 4: High pressure branchpipes PN 40.*

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## 1 Scope

In addition to the requirements given in EN 15182-1, this document applies to hand-held high pressure branchpipes (nozzles) PN 40 with a maximum flow rate of 200 l/min at a reference pressure of 6 bar (0,6 MPa). It deals with:

- safety requirements;
- performance requirements;
- test methods;
- classification and designation;
- operating instructions;
- marking and maintenance.

This part of this European Standard applies to branchpipes as defined in Annex A of EN 15182-1:2007.

## 2 Normative references

The following referenced documents are indispensable for the application 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 15182-1:2007, *Hand-held branchpipes for fire service use - Part 1: Common requirements*  
[SIST EN 15182-4:2007](#)

<https://standards.iteh.ai/catalog/standards/sist/397a47fe-98bd-4a7c-8b93-45f70a2a4fdd/sist-en-15182-4-2007>

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15182-1:2007 and the following apply.

### 3.1 high pressure branchpipe

branchpipe including a shut-off device and a variable pattern corresponding to the following definitions

NOTE Branchpipe is defined in 3.1 of EN 15182-1:2007.

#### 3.1.1 high pressure branchpipe – type 1

high pressure branchpipe with variable pattern at variable flow

NOTE Changing pattern changes the flow.

#### 3.1.2 high pressure branchpipe – type 2

high pressure branchpipe with variable pattern at constant flow

NOTE Changing pattern does not change the flow.

**3.1.3****high pressure branchpipe – type 3**

high pressure branchpipe with variable pattern at selectable, constant flow

NOTE Changing pattern does not change the flow.

**3.1.4****high pressure branchpipe – type 4 (automatic branchpipe)**

high pressure branchpipe with constant pressure

NOTE Changing pattern does not change the flow.

**3.1.4.1****high pressure branchpipe – type 4.1**

high pressure branchpipe with variable pattern at constant pressure

**3.1.4.2****high pressure branchpipe – type 4.2**

high pressure branchpipe with variable pattern and selectable flow at constant pressure

**3.2****jet****3.2.1****narrow spray jet**

intermediate position between the straight jet and the wide spray jet providing throw as well as protection

**3.2.2****wide spray jet**

jet solely providing protection for the operator(s)

**3.3****haptical device**

single mechanical device engaging detents

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**4 Requirements****4.1 General**

The branchpipes, covered by this standard, shall comply with EN 15182-1.

**4.2 Mechanical characteristics****4.2.1 Dimensions and mass**

The branchpipes (without inlet coupling) shall not exceed the dimensions and masses specified in Table 1.

**Table 1 — Dimensions and mass**

Dimensions mm	Mass kg
550 × 350 × 150	3,5
NOTE 1 The maximum mass does not apply to sea water-resistant branchpipes.	
NOTE 2 To avoid unsafe disconnection of the branchpipe from the hose during fire service use, the inlet of the branchpipe should be connected to the hose with an appropriate device.	

#### 4.2.2 Operating and handling elements

4.2.2.1 The torques needed to move the operating elements shall not exceed the values given in Table 2 at pressures up to the nominal pressure.

**Table 2 —Torque**

Type of operating element	Maximum torque N·m
Lever	15
Valve handle	15
Trigger	15
Rotating operating elements	10
Rotating inlet elements for fixed couplings or screwed hose	5

4.2.2.2 For branchpipes that are opened and closed with a valve handle or a trigger, the "closed" position shall be located in the direction of the flow. If a different operating element is used, the "closed" position shall be clearly identified.

#### 4.2.3 Flow adjustment positions

If a branchpipe has a device to select flow rate, the flow rate's settings shall be easily identifiable by both visual and mechanical means (haptical device with corresponding numerical values).

If using a rotating operating element for flow adjustment, the adjustment shall be achieved by a rotation movement of maximum 180 °.

#### 4.2.4 Jet adjustment positions

The various jet positions shall be clearly marked.

The narrow spray jet position (see 4.3.5) shall be easily identifiable by both visual and mechanical means (haptical devices).

Jet adjustment from a straight jet to a wide spray jet with a spray angle of at least 100 ° shall be achieved by a rotation movement between 70 ° and maximum 180 °.

NOTE This requirement is included in the standard as a safety detail to provide the user with a means to produce a wide protective spray jet of at least 100 ° achieved within a 180 ° rotation (one hand twist movement).



It shall be possible to open the branchpipe in a spray angle of at least 30 °.

### 4.3 Hydraulic characteristics

#### 4.3.1 Pressures

The following pressures shall be used for determining the hydraulic characteristics:

- reference pressure:  $p_R = 6$  bar;
- median pressure for type 4 branchpipes:  $p_m$ ;
- nominal pressure:  $p_N = 40$  bar;
- test pressure:  $p_t = 60$  bar;
- burst pressure:  $p_B = 100$  bar.

#### 4.3.2 Flow rates

All flow rates indicated on the branchpipe shall be measured at straight jet position and at the maximum spray angle position.

Table 3 shall apply to the deviation in flow rates which can be set at the reference pressure  $p_R$ .

NOTE 1 The deviation should also apply when the shape of the stream is altered.

**Table 3 — Deviation in the flow rate**

Flow rate l/min	Deviation limit
0 to 100	0/+20 l/min
Above 100	0/+ 10 % (of set rate)

NOTE 2 The manufacturer should, in addition to EN 15182-1:2007, item 8.1.2, provide information concerning optimal flow rate settings regarding hose size and hose length in an instruction handbook.

#### 4.3.3 Effective throw

The high pressure branchpipes shall achieve, for each flow rate position, an effective throw  $d_{\text{eff}}$  as shown in Figure 1, when set to a straight jet at the reference pressure.