

### SLOVENSKI STANDARD oSIST prEN 17407:2019

01-september-2019

Prenosna oprema za črpanje in uporabo gasilnega sredstva iz gasilskih črpalk - Zbiralne in razdelilne zapore PN16

Portable equipment for projecting extinguishing agents supplied by firefighting pumps - Collecting heads and dividing breechings PN16

Tragbare Geräte zum Ausbringen von Löschmitteln, die mit Feuerlöschpumpen gefördert werden - Sammelstücke und Verteiler PN 16

Équipement portable de projection d'agents d'extinction alimenté par des pompes à usage incendie - Collecteurs et divisions PN16

Ta slovenski standard je istoveten z: prEN 17407

ICS:

13.220.10 Gašenje požara Fire-fighting

oSIST prEN 17407:2019 en,fr,de

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### DRAFT prEN 17407

June 2019

ICS 13.220.10

#### **English Version**

# Portable equipment for projecting extinguishing agents supplied by firefighting pumps - Collecting heads and dividing breechings PN16

Équipement portable de projection d'agents d'extinction alimenté par des pompes à usage incendie - Collecteurs et divisions PN16 Tragbare Geräte zum Ausbringen von Löschmitteln, die mit Feuerlöschpumpen gefördert werden -Sammelstücke und Verteiler PN 16

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

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Coı	Contents				
For	eword	3			
Intr	oduction	4			
1	Scope	5			
2	Normative references	5			
3	Terms and definitions				
4 4.1	DescriptionCollecting head	7			
4.2 4.3	Dividing breechingCombined collecting head and dividing breeching				
5 5.1 5.2	Mechanical characteristics ColDiv types and classification Operating and handling elements	8			
6	Designation	12			
7	Material	12			
8 8.1	Requirements and verification				
8.2	Pressure and flow test				
8.3	Components, dimensions and mass				
<ul><li>8.4</li><li>8.5</li><li>8.6</li></ul>	Sensitivity to heat and frost	17			
9	Information for use	19			
9.1	Instruction and maintenance handbook				
9.2	Marking	20			
Ann	nex A (informative) Acceptance test on delivery	21			
Ann	nex B (normative) Datasheet for collecting heads and dividing breechings	22			
Ann	nex C (informative) Example of completed datasheet for a collecting head	23			
Ann	nex D (informative) Example of completed datasheet for a dividing breeching	24			
Bib	liography	25			

#### **European foreword**

This document (prEN 17407:2019) has been prepared by Technical Committee CEN/TC 192 "Fire and rescue service equipment", the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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#### Introduction

The collecting head PN16 is primarily intended for use during firefighting operations to connect one or more lines of hose.

The dividing breeching PN16 with outlet valves is primarily intended for use during firefighting operations to divide one or more inlets into two or more outlets and fight the fire with more than one branchpipe.

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#### 1 Scope

- **1.1** This document defines requirements and tests which apply to:
- collecting heads with a nominal pressure of 16 bar (1,6 MPa) PN16 which are used by fire and rescue services to combine two or more inlets into one or more outlets;
- dividing breechings with a nominal pressure of 16 bar (1,6 MPa) PN 16 which are used by fire and rescue services to divide one or more inlets into two or more outlets.
- NOTE 1 In this document, "ColDiv" is used to refer both to collecting heads and dividing breechings.
- NOTE 2 In this document, drawings of collecting heads and dividing breechings are shown inlets downwards and outlet upwards.
- **1.2** This document is not applicable to collecting heads or dividing breechings which have been manufactured before its date of publication as a European Standard.

#### 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 659, Protective gloves for firefighters

EN 837-1, Pressure gauges — Part 1: Bourdon tube pressure gauges — Dimensions, metrology, requirements and testing

EN 837-3, Pressure gauges — Part 3: Diaphragm and capsule pressure gauges — Dimensions, metrology, requirements and testing

EN 12266-1, Industrial valves — Testing of metallic valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

- IEC Electropedia: available at <a href="http://www.electropedia.org/">http://www.electropedia.org/</a>
- ISO Online browsing platform: available at <a href="http://www.iso.org/obp">http://www.iso.org/obp</a>

#### 3.1

### collecting head collecting breeching

device used to connect one or more lines of hose

Note 1 to entry: e.g. to the suction inlet of a pump or another (larger diameter) hose.

#### 3.2

#### dividing breeching

device used to divide one or more inlets clapper valved or not, into two or more outlets equipped or not with shut off valves

#### 3.3

#### combined collecting head and dividing breeching

device used to connect one or more lines of hose into two or more outlets equipped or not with shut off valves

#### 3.4

#### pressures

Note 1 to entry: Pressures are expressed in bar, measured with respect to atmospheric pressure.

Note 2 to entry:  $1 \text{ bar} = 0.1 \text{ MPa} (10^5 \text{ Pa}).$ 

#### 3.4.1

#### outlet working pressure

*p*2

pressure measured at the outlet of the dividing breeching

#### 3.4.2

#### inlet working pressure

**p**1

pressure measured at the inlet of the dividing breeching

#### 3.4.3

#### nominal pressure

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*p*N https://standards.iteh.ai/catalog/standards/sist/c0c04263-4e4f-4bce-b5aa-maximum working pressure measured at the inlet of the ColDiv 407-2020

#### 3.4.4

#### test pressure

 $p_{\mathsf{t}}$ 

static pressure used for leakage tests

#### 3.4.5

#### burst pressure

 $p_{\rm B}$ 

static pressure used for burst test

#### 3.4.6

#### dividing breeching pressure loss

 $\Delta p$ 

pressure difference between the inlet of the dividing breeching and the outlet of the dividing breeching expressed in percentage of p

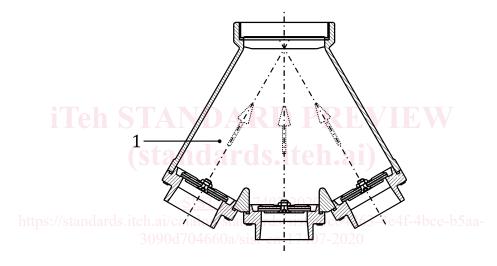
#### 4 Description

#### 4.1 Collecting head

A collecting head is comprised of at least the following components (see Figure 1):

- a body with several inlets and one or more outlets;
- fitting system;
- gripping device, optional;
- pressure gauge, optional;
- clapper/non return valve(s) when more than one inlet.

NOTE These components can consist of a single piece or several parts.



#### Key

1 body

Figure 1 — Components of a collecting head shown without fitting systems

#### 4.2 Dividing breeching

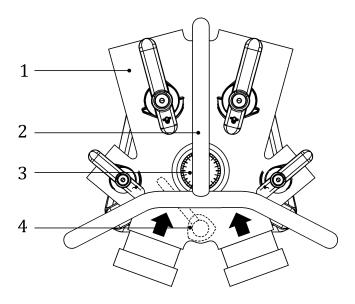
A dividing breeching is comprised of at least the following components (see Figure 2):

- a body with one or more inlets and several outlets, with or without shut off device (e.g. operated by a valve handle, a lever);
- fitting system;
- gripping device, optional;
- pressure gauge, optional;
- clapper/non return valve when more than one inlet.

NOTE These components may consist of a single piece or several parts.

#### 4.3 Combined collecting head and dividing breeching

A combined collecting head and dividing breeching is composed of elements described in 4.1 and 4.2 and illustrated in Figure 2.



#### Key

- 1 body
- 2 gripping device
- 3 pressure gauge
- 4 clapper/non return valve

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Figure 2 — Components of a combined collecting head and dividing breeching shown without fitting systems

#### 5 Mechanical characteristics

#### 5.1 ColDiv types and classification

The ColDiv are classified by letters depending on nominal sizes of inlets and outlets as specified in Table 1 and given in a clockwise manner starting from the left inlet.

Table 1 — Nominal size designation

Nominal bore metric size	Nominal bore imperial size		Hose size (ranges)	Denominating code
mm	inch		mm	
25	1		19 to 25,4	D
50	1,5	2	38 to 55	С
75	2,5	3	65 to 75	В
110	4	4,5	100 to 110	A
125	5		125	E
150	6		150	F

Possible combination inlets/outlets are specified in Table 2 (see examples 1 to 5).

EXAMPLE 1 Dividing breeching with one inlet (75 mm) and 3 outlets (52 mm – 75 mm – 52 mm) is classified as follows: B-CBC (see Figure 3).

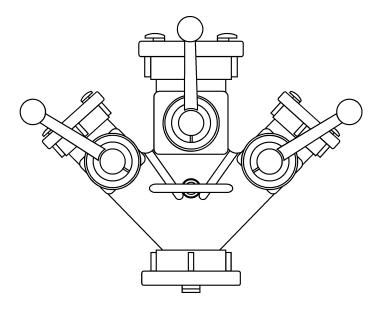


Figure 3 — Example of a dividing breeching type B-CBC with couplings

EXAMPLE 2 Combined collecting head and dividing breeching with two inlets (75 mm) and 3 outlets (52 mm – 75 mm – 52 mm) is classified as follows: BB-CBC (see Figure 4).

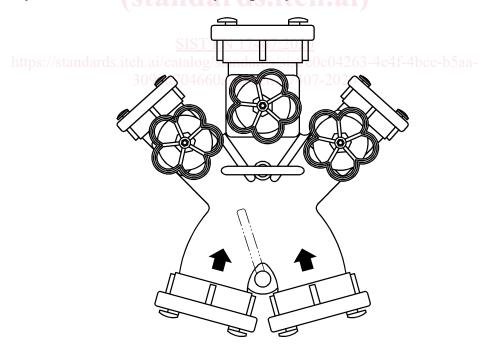


Figure 4 — Example of a combined collecting head and dividing breeching type BB-CBC with couplings