SLOVENSKI STANDARD
oSIST prEN 16712-2:2014

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Prenosna gasilska oprema za nanašanje gasilnih sredstev z gasilskimi brizgalnami - Prenosna oprema za izdelavo gasilne pene - 2. del: Sesalna cev za penilo

Portable equipment for projecting extinguishing agents supplied by fire fighting pumps - Portable foam equipment - Part 2: Pick-up tubes

Tragbare Geräte zum Ausbringen von Löschmitteln, die mit Feuerlöschpumpen gefördert werden - Tragbare Schaumgeräte - Teil 2: Ansaugschlauch

Equipement portable de projection d’agents d’extinction alimenté par des pompes à usage incendie - Equipements mousse portables - Partie 2: Flexibles d'aspiration

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13.220.10 Gašenje požara Fire-fighting

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

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Contents

Page

Foreword

This document (prEN 16712-2:2014) 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.

EN 16712 consists of the following parts, under the general title "*Portable equipment for projecting extinguishing agents supplied by fire fighting pumps — Portable foam equipment*":

— Part 1: Inductors PN 16;

— Part 2: Pick-u tubes;

— Part 3: Low and medium expansion handheld foam branchpipes PN 16;

— Part 4: High expansion foam generators PN 16.

Introduction

This European Standard has been created to provide a minimum level of performance criteria.

1 Scope

1.1 This document specifies performance requirements and test methods for pick-up tubes.

This document applies to pick-up tubes from DN 20 to DN 50 which are used for the suction of foam concentrate or additives and defines their requirements and test procedures.

NOTE 1 Pick-up tubes are especially used for the suction of foam concentrate or additives with inductors in accordance with prEN 16712-1.

NOTE 2 Pick-up tubes can also be used for the suction of other substances (e.g. absorbents).

1.2 This document is not applicable to pick-up tubes which have been manufactured before its date of publication.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN 16712-1, *Portable equipment for projecting extinguishing agents supplied by fire fighting pumps — Portable foam equipment — Part 1: Inductors PN 16*

3 Terms and definitions

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

3.1
pick-up tube
device through which foam concentrate, additives or other substances are transferred from a reservoir to an inductor or other proportioning device

4 Designation

The designation of pick-up tubes in compliance with EN 16712-2 comprises:

— name;

— reference to EN 16712-2

— nominal diameter;

— total length.

EXAMPLE A pick-up tube with a nominal diameter of 38 mm and a total length of 1 500 mm is designed as follows:

Pick-up tube EN 16712-2 — DN 38 – 1 500

5 Requirements

5.1 Components, dimensions and mass

The pick-up tube consists of a semi rigid transparent tube connectable at one end to the foam concentrate inlet of an inductor or proportioning device (see Figure 1). At the other end, it should remain free or be equipped with:

— a riser metallic or plastic pipe, or

— a strainer, with or without foot valve, or

— a coupling, or

— any combinations of the above elements.

It is recommended that the length of the flexible section (semi rigid translucent tube) and of the rigid section (riser pipe) be specified by the user/purchaser to meet their specific requirements.

NOTE Riser pipes have proved to be more advantageous than a free tube end because their mass helps avoid the pick-up tube slipping out of the foam concentrate or additive container.

The above elements should take into account the total length indicated in Table 2 and shall not reduce the performance of the inductor or proportioning device, e.g. by a smooth internal surface of the semi rigid tube.

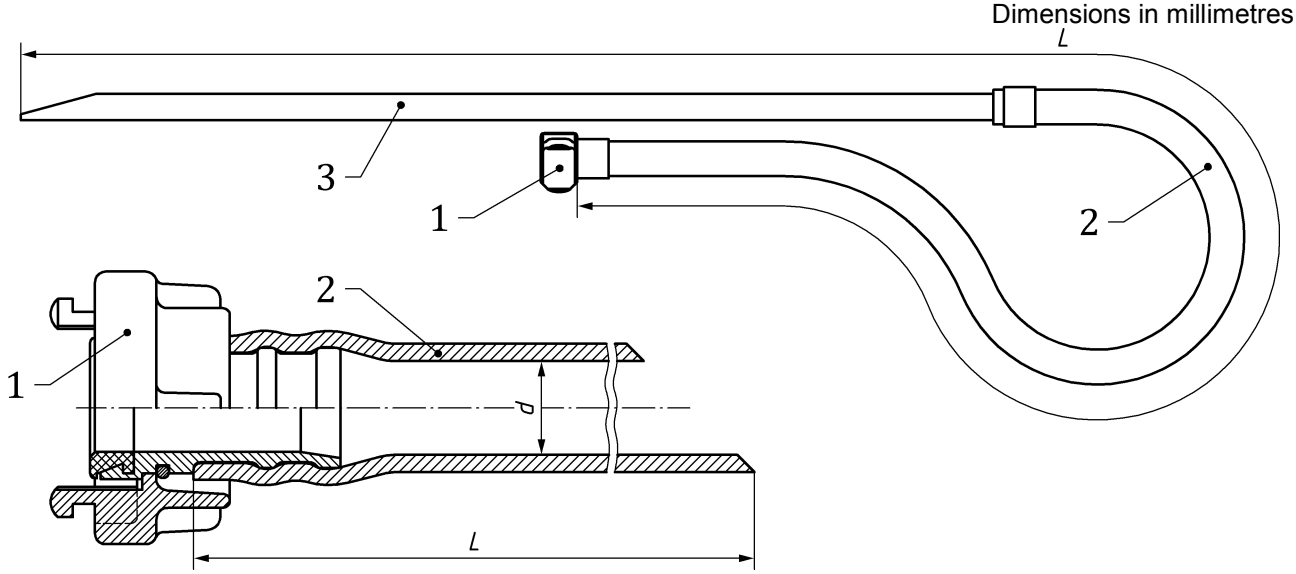
The nominal diameters shall be in accordance with Table 1.

Table 1 — Nominal diameters

Nominal flow rate of proportioning or inducting device	DN
≤ 800 l/min	≥ 20
> 800 l/min to ≤ 2 000 l/min	25 to 38
> 2 000 l/min	≥ 38

Dimensions and mass of pick-up tubes DN 20 shall be in accordance with Figure 1 and Table 2. For pick-up tubes larger than DN 20 dimensions and mass shall be agreed between the manufacturer and the user.

Dimensions in millimetres



Key

1 connection to inductor or proportioning device
2 semi rigid translucent tube
3 riser pipe
L total length
d nominal diameter

Figure 1 — Dimensions of a pick-up tube

Table 2 — Total length and maximum mass of pick-up tube DN 20

Pick-up tube DN 20	**Total length *(L)*** mm	**Maximum mass** kg
Pick-up tube EN 16712-2 — DN 20 - 1500	1 500 ± 50	1
Pick-up tube EN 16712-2 — DN 20 - 3000	3 000 ± 50	2

Verification

Measurement of dimensions and mass.

5.2 Material

The semi rigid tube shall be made of thermoplastic material, optionally with reinforcement (e.g. spiral wire or fibre reinforced).

The material of the tube shall be translucent in order to view the presence of the foam concentrate or additive inside the semi rigid tube and/or flow disturbances.

Verification

Visual inspection and supplier material certificate.

The resistance to foam concentrate or additive shall be agreed between the supplier and the user.

The pick-up tube should be UV-resistant.

Verification

Material certificates.

5.3 Connection to the inductor/proportioning device

The wall thickness shall be selected in such a way that the tube is permanently fixed to the coupling.

A tube clamp or other convenient binding mechanism is permitted. A suitable permanent adhesive may be used.

Verification

The tube shall be attached to the connector in such a way that its position on the connector does not change.

On the tube heated up to a temperature of (55 ± 3)°C, a traction force of (100 ± 5) N is applied for 15 s to the coupling-free end of the tube.

After 15 s, check by visual inspection that the position of the tube on the connector has not moved.

The connecting part of the coupling shall rotate independently of the tube while being attached to the inductor or proportioning device.

Verification

Visual inspection.

5.4 Tightness

During a one minute test, the pressure shall not change.

Verification

At room temperature (23 ± 5) °C, a pressure of (- 0,8 ± 0,1) bar shall be maintained inside the tube for 15 s.

Check that the pressure does not deviate more than 0,1 bar.

5.5 Cross section

During the test below, the outer diameter of the semi rigid tube shall not be more than 20 % smaller at any point, when compared to the original outer diameter.

Verification

The diameter of the semi rigid tube shall be measured after 15 s at a temperature of 55 °C and a pressure of - 0,8 bar.

5.6 Buckling

During the test below, the semi rigid tube shall not buckle.