SLOVENSKI STANDARD
oSIST prEN 671-2:2006

01-marec-2006

Vgrajeni gasilni sistemi – Cevni sistemi – 2. del: Cevni sistemi s plosko cevjo

Fixed firefighting sytems - Hose systems - Part 2: Hose system with lay-flat hose

Ortsfeste Löschanlagen - Wandhydranten - Teil 2: Wandhydranten mit Flachschlauch

Installations fixes de lutte contre l'incendie - Systemes équipés de tuyaux - Partie 2 : Postes d'eau muraux équipés de tuyaux plats

Ta slovenski standard je istoveten z: **prEN 671-2**

ICS:

13.220.10	Gašenje požara	Fire-fighting
23.040.70	Gumene cevi in armature	Hoses and hose assemblies

oSIST prEN 671-2:2006 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 671-2

January 2006

ICS 13.220.20

Will supersede EN 671-2:2001

English Version

Fixed firefighting sytems - Hose systems - Part 2: Hose system with lay-flat hose

Installations fixes de lutte contre l'incendie - Systèmes équipés de tuyaux - Partie 2 : Postes d'eau muraux équipés de tuyaux plats

Ortsfeste Löschanlagen - Wandhydranten - Teil 2: Wandhydranten mit Flachschlauch

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 191.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

CEN members are the national standards bodies of Austria, Belgium, 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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

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

Contents

Page

Foreword

This document (prEN 671-2:2006) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting sytems”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 671-2:2001.

This document 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, B, C or D, which is an integral part of this document.

EN 671 has the general title “*Fixed firefighting systems – Hose systems*” and is in three parts;

Part 1: Hose reels with semi-rigid hose

Part 2: Hose systems with lay-flat hose

Part 3: Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose

Introduction

Hose systems in proper condition provide a very effective firefighting facility with a continuous supply of water available immediately.

The requirements of this standard have been framed to ensure that hose systems can be operated efficiently by one person and that such systems will have a long service life and will not need excessive maintenance.

1 Scope

This European Standard specifies requirements and methods of test for the construction and performance of fire hose systems with lay-flat hose for installation in buildings and other construction works, permanently connected to a water supply, for use by the occupants.

Its requirements may apply in general for other applications, for example in marine applications or in aggressive environments, but additional requirements may be necessary in such cases.

For convenience of application in conformity testing, the normative annexes of this standard are arranged so that annex A gives the sequence of testing for conformity assessment and annexes B, C, D and E are in the correct sequence for testing.

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 publication referred to applies (including amendments).

EN 671-3:2000, *Fixed firefighting systems - Hose systems – Part 3: Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose*

EN ISO 4892-2:1999, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc sources (ISO 4892-2:1994)*

EN ISO 9001:2000, *Quality systems – Requirements*

EN 14540:2004, *Fire-fighting hoses - Non-percolating layflat hoses for fixed systems*

ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads – Part 1: Dimensions, tolerances and designation.*

ISO 5208:1993, *Industrial valves – Pressure testing of valves*

ISO 6309:1987, *Fire protection – Safety signs*

ISO 9227:1990, *Corrosion tests in artificial atmospheres; salt spray tests*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

3.1
cabinet
box to protect the hose system against environmental or physical damage

3.2
coupling
device used to connect the hose to the valve and to the shut-off nozzle

3.3
fire hose system; hose system
firefighting appliance consisting essentially of a cabinet or cover, hose support, manual stop valve, lay-flat hose with couplings, shut-off nozzle

3.4
hose support
device used to hold the hose

3.5
lay-flat hose
hose which is flat-sectioned except when it is internally pressurized

3.6
maximum working pressure
maximum allowable pressure for which the hose system is designed

NOTE All pressures are gauge pressures and are expressed in Mega Pascal. 1 MPa = 10 bar.

3.7
shut-off nozzle
component at the end of the hose used to direct and control the discharge of water

4 Designation

4.1 General

A hose system shall be designated according to its method of mounting (see 4.2), the form of hose support (see 4.3), the diameter of hose in millimetres and the length of hose in metres.

Thus the hose system in a cabinet for surface mounting, with the hose on a reel, fitted with 52 mm diameter hose of length 20 m, is designated:

EN671-2C-1/52-20.

4.2 Method of mounting

A hose system shall be designed for mounting in one of the following forms:

- form A: in a wall recess with cover;

- form B: in a cabinet in a wall recess;

- form C: in a cabinet for surface mounting.

4.3 Hose support

4.3.1 General

The hose support shall be one of the following types:

- type 1: rotating reel;

- type 2: cradle with the hose double coiled;

- type 3: hose basket with the hose flaked.

4.3.2 Type 1

The reel shall rotate around a spindle so that the hose can be withdrawn freely. The inside drum shall have a minimum diameter of not less than 70 mm and shall have a slit not less than 20 mm wide across the full diameter of the drum into which the folded hose is located.

4.3.3 Type 1 and 3

Type 1 and 3 supports if fixed to the cabinet shall allow a swing to a position at 90^0 to the plane of the back of the cabinet. The turning axis shall be vertical.

5 Hose and hose assemblies

5.1 General

The hose shall be lay-flat and conform to EN 14540.

The notified body can determine the conformity to EN 14540 by either a certificate or a test report of an accredited or notified body.

5.2 Hose bore

The nominal diameter shall not exceed 52 mm.

5.3 Maximum length

The nominal length of the hose shall not exceed 20 m, except where, for certain specific applications, regulations permit greater lengths.

5.4 Couplings

5.4.1 General

Couplings shall comply with national standards of the country in which the equipment is to be installed.

NOTE Local authority regulations of the country may apply for couplings.

5.4.2 Coupling bindings

The coupling shall be bound to the hose by means of an even pressure over the complete perimeter of the hose against the coupling shank.

6 Shut-off nozzle

6.1 General

The hose shall terminate in a shut-off nozzle, which shall give the following control settings:

a) shut, ~~and~~

b) spray; ~~and~~

c) jet.

It is recommended that the sequence should be as above with the spray setting between the shut setting and the jet setting.

If a hose system is used on electrical equipment the settings of the shut-off nozzle shall be according national regulations.

Any spray discharge shall be in the form of either a sheet spray or a conical spray.

6.2 Resistance to impact

The nozzle shall not break or show any visible leakage when tested in accordance with E.1.

6.3 Operating torque

The torque necessary to operate the nozzle to each control setting at maximum working pressure shall not exceed the appropriate value given in Table 1 when determined after testing in accordance with E.2.

Table 1 — Maximum operating torque of nozzle control

Control setting	Maximum operating torque Nm
Opening	7
Spray	7
Jet	7
Flow rate control	7

6.4 Marking of control settings

Rotary operated nozzles shall be marked to show the direction of closing and opening.

Lever operated nozzles shall be marked to show the settings for:

a) shut;

b) spray;

c) jet.

7 Inlet stop valve

a) A manual stop valve shall be fitted to the hose system.

NOTE It is normally appropriate for valves and valve connections and valve combinations to comply with national standards of the country in which the equipment is to be installed.

b) The valve shall be screw down or other slow-opening type.

c) The inlet shall be threaded according to ISO 7-1.

d) The inlet and outlet shall form an angle of not less than 90° and not more than 135°.

e) The valve shall be closed by turning the handle in a clockwise direction and the direction of opening shall be marked.

f) When tested in accordance with ISO 5208 for a maximum working pressure of 1,2 MPa the valve shall conform to the appropriate requirements.

8 Cabinets

8.1 General

Cabinets shall be fitted with a door and can be fitted with a lock. Cabinet doors shall open to minimum 170° to allow the hose to be run out freely in any direction. Cabinets shall be free of sharp edges, which might damage the equipment or cause injury.

Lockable cabinets shall be provided with an emergency opening device, which may be protected only by transparent frangible material. To provide access for inspection and maintenance, the cabinet shall be unlock able with a key.

If the emergency opening device is protected by a frangible glass front this shall be of the type which when broken does not leave jagged or sharp edges, which might cause injury when the emergency opening is operated.

When transparent material is used as a part of the construction of the door then this shall not be used as the emergency access to the hose system.

Cabinets may also be used to contain other firefighting equipment, provided that the cabinet is of sufficient size and the equipment does not interfere with the prompt use of the hose system.

For service in some climatic conditions it may be necessary to provide the cabinet with suitable ventilating openings.

8.2 Opening device

An opening device shall be provided to allow periodical inspection and maintenance. The opening device shall have provision for a security seal to be fitted.