SLOVENSKI STANDARD
SIST EN 14420-4:2013

01-september-2013

Nadomešča:
SIST EN 14420-4:2005+A1:2007

Cevni fitingi z objemkami - 4. del: Prirobnični spoji

Hose fittings with clamp units - Part 4: Flange connections

Schlaucharmaturen mit Klemmfassungen - Teil 4: Flanschanschlüsse

Raccords pour flexibles avec demi-coquille - Partie 4: Raccordements à bride

Ta slovenski standard je istoveten z: EN 14420-4:2013

ICS:

23.040.60	Prirobnice, oglavki in spojni elementi	Flanges, couplings and joints

SIST EN 14420-4:2013 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14420-4

July 2013

ICS 23.040.70

Supersedes EN 14420-4:2004+A1:2007

English Version

Hose fittings with clamp units - Part 4: Flange connections

Raccords pour flexibles avec demi-coquille - Partie 4: Raccordements à bride

Schlaucharmaturen mit Klemmfassungen - Teil 4: Flanschanschlüsse

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 14420-4:2013) has been prepared by Technical Committee CEN/TC 218 “Rubber and plastics hoses and hose assemblies”, 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of an identical text or by endorsement, at the latest by January 2014, and conflicting national standards shall be withdrawn at the latest by January 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14420-4:2004+A1:2007.

In comparison to EN 14420-4:2004+A1:2007, the following changes have been made:

— The scope has been revised.

— In Clause 2, the normative references have been updated.

— A new Clause 3 “Terms and definitions” has been added.

— In 5.5, the list of referenced standards has been updated.

— In 7.1, the list of materials for hose tails has been supplemented by non-alloyed steel (C22), aluminium and copper-zinc-alloys.

— In Clause 8, the requirements on marking have been reviewed.

— The Bibliography has been reviewed.

— The standard has been revised editorially.

EN 14420, *Hose fittings with clamp units* consists of the following parts:

— *Part 1: Requirements, types of fixing and connection, designation and testing*

— *Part 2: Hose side parts of hose tail*

— *Part 3: Clamp units, bolted or pinned*

— *Part 4: Flange connections*

— *Part 5: Threaded connections*

— *Part 6: TW tank truck couplings*

— *Part 7: Cam locking couplings*

— *Part 8: Symmetrical half coupling (Guillemin system)*

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece,

Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies requirements for hose tails according to EN 14420-2, with flanges of mating dimensions PN 10/PN 16/PN 25/PN 40 (according to nominal size and pressure stage) according to EN 1092-1, on hose fittings with clamp units according to EN 14420-3.

Maximum working pressure is 25 bar[1)]; maximum working temperature is 65 °C.

Additionally, flanges are also usable according to EN 14422.

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.

EN 573-3, *Aluminium and aluminium alloys — Chemical composition and form of wrought products — Part 3: Chemical composition and form of products*

EN 1092-1, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 1: Steel flanges*

EN 1435, *Non-destructive examination of welds — Radiographic examination of welded joints*

EN 1706, *Aluminium and aluminium alloys — Castings — Chemical composition and mechanical properties*

EN 10025-2, *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10083-2, *Steels for quenching and tempering — Part 2: Technical delivery conditions for non alloy steels*

EN 10087, *Free-cutting steels — Technical delivery conditions for semi-finished products, hot-rolled bars and rods*

EN 10088-1, *Stainless steels — Part 1: List of stainless steels*

EN 10216-1, *Seamless steel tubes for pressure purposes — Technical delivery conditions — Part 1: Non-alloy steel tubes with specified room temperature properties*

EN 10217-1, *Welded steel tubes for pressure purposes — Technical delivery conditions — Part 1: Non-alloy steel tubes with specified room temperature properties*

EN 10283, *Corrosion resistant steel castings*

EN 12163, *Copper and copper alloys — Rod for general purposes*

EN 14420-1:2013, *Hose fittings with clamp units — Part 1: Requirements, types of fixing and connection, designation and testing*

EN 14420-2, *Hose fittings with clamp units — Part 2: Hose side parts of hose tail*

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1) 1 bar = 0,1 MPa.

EN 14420-3, *Hose fittings with clamp units — Part 3: Clamp units, bolted or pinned*

EN 22768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1)*

EN 22768-2, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications (ISO 2768-2)*

EN ISO 4042, *Fasteners — Electroplated coatings (ISO 4042)*

EN ISO 8330:2008, *Rubber and plastics hoses and hose assemblies — Vocabulary (ISO 8330:2007)*

EN ISO 11666, *Non-destructive testing of welds — Ultrasonic testing — Acceptance levels (ISO 11666)*

EN ISO 15614-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1)*

EN ISO 15614-2, *Specification and qualification of welding procedures for metallic materials — Welding procedure test - Part 2: Arc welding of aluminium and its alloys (ISO 15614-2)*

EN ISO 17636-1, *Non-destructive testing of welds — Radiographic testing — Part 1: X- and gamma-ray techniques with film (ISO 17636-1)*

EN ISO 17636-2, *Non-destructive testing of welds — Radiographic testing — Part 2: X- and gamma-ray techniques with digital detectors (ISO 17636-2)*

EN ISO 17638, *Non-destructive testing of welds — Magnetic particle testing (ISO 17638)*

EN ISO 17640, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment (ISO 17640)*

EN ISO 23277, *Non-destructive testing of welds — Penetrant testing of welds — Acceptance levels (ISO 23277)*

EN ISO 23278, *Non-destructive testing of welds — Magnetic particle testing of welds — Acceptance levels (ISO 23278)*

EN ISO 23279, *Non-destructive testing of welds — Ultrasonic testing — Characterization of indications in welds (ISO 23279)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 8330:2008 and the following apply.

3.1
DN (nominal size)
alphanumeric designation of size for components of a pipework system, which is used for reference purposes. It comprises the letters DN followed by a dimensionless whole number which is indirectly related to the physical size, in millimetres, of the bore or outside diameter of the end connections

Note 1 to entry: The number following the letters DN does not represent a measurable value and should not be used for calculation purposes except where specified in the relevant standard.

Note 2 to entry: In those standards which use the DN designation system, any relationship between DN and component dimensions should be given, e.g. DN/OD or DN/ID.

[SOURCE: EN ISO 6708:1995, 2.1]

3.2
PN
alphanumeric designation used for reference purposes related to a combination of mechanical and dimensional characteristics of a component of a hose fitting

Note 1 to entry: It comprises the letters PN followed by a dimensionless number.

Note 2 to entry: The number following the letters PN does not represent a measurable value and should not be used for calculation purposes except where specified in the relevant standard.

4 Hose fittings with flanges

Integral or welded flanges DN 15 to DN 200 according to EN 1092-1 shall be used (see Figure 1 and Figure 2).

A parts list for hose fittings with flanges is given in Table 1. End-to-end dimensions and weights are given in Table 2.

Form FL

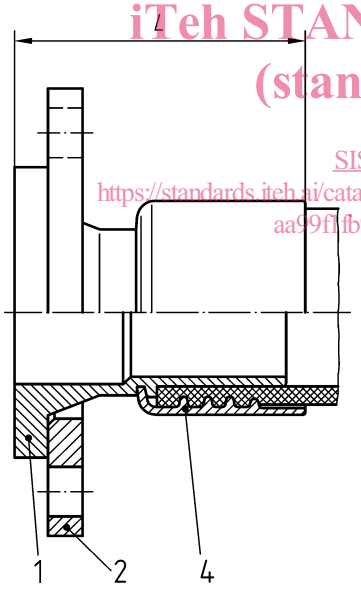

Figure 1 — Example of loose flange

Form FV

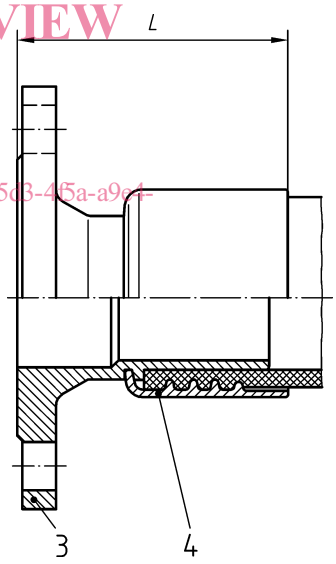

Figure 2 — Example of fixed flange

Table 1 — Parts list

Item No.	Designation	Remark
1	Hose tail with fixed collar	According to 5.2
2	Loose flange	According to EN 1092–1[a]
3	Hose tail with fixed flange	According to 5.3
4	Clamp unit	According to EN 14420–3
[a] During assembly, measures should be taken.		