



SLOVENSKI STANDARD
SIST EN 14420-5:2013

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Nadomešča:
SIST EN 14420-5:2005

Cevni fitingi z objemkami - 5. del: Navojni priključki

Hose fittings with clamp units - Part 5: Threaded connections

Schlaucharmaturen mit Klemmfassungen - Teil 5: Gewindeanschlüsse

Raccords pour flexibles avec demi-coquille - Partie 5: Raccordements filetés
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Ta slovenski standard je istoveten z: EN 14420-5:2013

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ICS:

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

SIST EN 14420-5:2013

en,fr,de

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EUROPEAN STANDARD

EN 14420-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2013

ICS 23.040.70

Supersedes EN 14420-5:2004

English Version

Hose fittings with clamp units - Part 5: Threaded connectionsRaccords pour flexibles avec demi-coquille - Partie 5:
Raccordements filetésSchlaucharmaturen mit Klemmfassungen - Teil 5:
Gewindeanschlüsse

This European Standard was approved by CEN on 15 May 2013.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.

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

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Foreword

This document (EN 14420-5:2013) 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 14420-5:2004.

In comparison to EN 14420-5:2004, the following changes have been made:

- In Clause 2, the normative references have been updated.
- A new Clause 3 "Terms and definitions" has been added.
- 5.5 has been renamed "Thread gaskets".
- In 7.2, the list of materials for hose tails and union nuts has been revised.
- In 7.4, the requirements on materials have been revised.
- In Clause 8, the requirements for marking have been revised.
- 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)*

EN 14420-5:2013 (E)

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.

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1 Scope

This European Standard specifies requirements for hose fittings with clamp units according to EN 14420-1 with union nut and pipe thread according to EN ISO 228-1 as well as for hose tails according to EN 14420-2 with male pipe thread according to EN ISO 228-1.

Maximum working pressure is 25 bar¹⁾; maximum working temperature is 65 °C.

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 755 (all parts), *Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles*

EN 1982, *Copper and copper alloys — Ingots and castings*

EN 10025-2, *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural 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 10213, *Steel castings for pressure purposes*

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

EN 10243-1, *Steel die forgings — Tolerances on dimensions — Part 1: Drop and vertical press forgings*

EN 10243-2, *Steel die forgings — Tolerances on dimensions — Part 2: Upset forging made on horizontal forging machines*

EN 10283, *Corrosion resistant steel castings*

EN 12164, *Copper and copper alloys — Rod for free machining purposes*

EN 12420, *Copper and copper alloys — Forgings*

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*

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 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1)*

1) 1 bar = 0,1 MPa.

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EN ISO 683-17, *Heat-treated steels, alloy steels and free-cutting steels — Part 17: Ball and roller bearing steels (ISO 683-17)*

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

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

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]

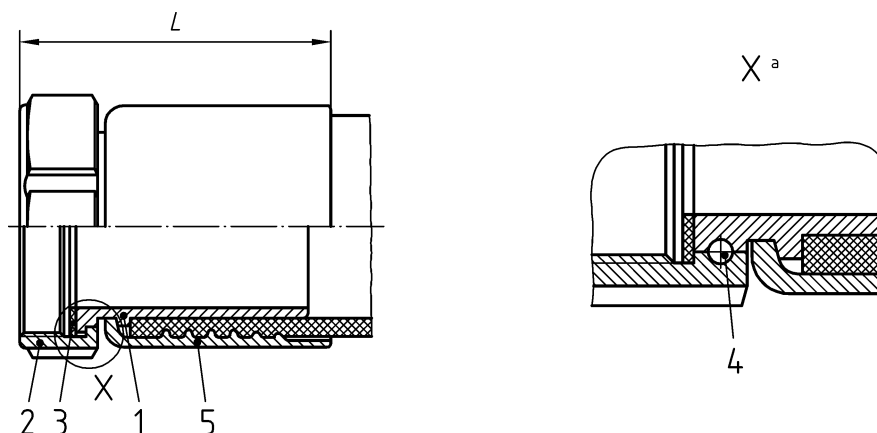
3.2
thread gasket

flat faced gasket for threads according to EN ISO 228-1

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4 Hose fitting with union nut and clamp fitting with male pipe thread

These hose fittings shall be in accordance with Figure 1 to Figure 3, Table 1 and Table 2.

Form G**Key**

For 1, 2, 3, 4 and 5 see Table 1.

^a Only at nominal size DN 100

Figure 1 — Hose fitting with union nut

Table 1 — Parts list

Item No	Designation	Remark
1	Hose tail	according to 5.3
2	Union nut	according to 5.4
3	Thread gasket	according to 5.5
4	Ball	according to 5.4
5	Clamp unit	according to EN 14420-3

NOTE 1 For designation of a complete hose fitting see EN 14420-1.

Form GA

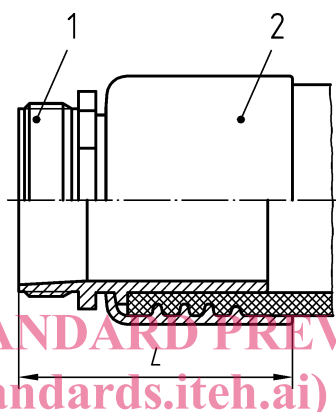


Figure 2 — Hose fitting with male pipe thread

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Table 2 — Parts list

Item No	Designation	Remark
1	Hose tail	according to 5.2
2	Clamp unit	according to EN 14420-3

NOTE 2 For designation of a complete hose fitting see EN 14420-1.

Table 3 — End-to-end dimensions and weights

Nominal size DN	Thread according to EN ISO 228-1 inner/outer	End-to-end dimension <i>L</i> mm min. for		Weight ^b (mass) Form G/GA kg ≈ for	
		inner thread	outer thread	inner thread	outer thread
15 ^a	G 1/2/G 1/2 A	66	71	0,20	0,20
	G 3/4	66		0,20	
20 ^a	G 3/4/G 3/4 A	67	70	0,20	0,30
	G 1	70		0,25	
25	G 1/G 1A	67	70	0,30	0,30
	G 1 1/4	69		0,30	
32	G 1 1/4/G 1 1/4 A	70	71	0,35	0,40
	G 1 1/2	74		0,40	
40	G 1 1/2/G 1 1/2 A	74	75	0,45	0,50
	G 2/G 2 A	79	76	0,60	0,55
50	G 2/G 2 A	84	83	0,75	0,80
	G 2 1/2	85		0,90	
65	G 2 1/2/G 2 1/2 A	104	104	1,15	1,30
	G 3/G 3 A	107	105	1,60	1,40
80	G 3/G 3 A	110	109	1,65	1,60
100	G 4/G 4 A	142	135	3,90	3,20

^a At nominal sizes DN 15 and DN 20, threads according to EN 10226-1 may be agreed upon.

^b The weights apply for clamp units in aluminium. They may deviate from the value given depending on the type of hose tail.

5 Dimensions, designations

5.1 General

The parts shall comply with the dimensions in the tables. Figure 3 and Figure 4 in this European Standard are presented as examples.

NOTE Details not specified are at the discretion of the manufacturer with respect to the intended use.

Tolerances for dimensions without specified tolerances:

- Dimensions for machined parts: general tolerances EN 22768-mK;
- Dimensions for copper-zinc alloy.

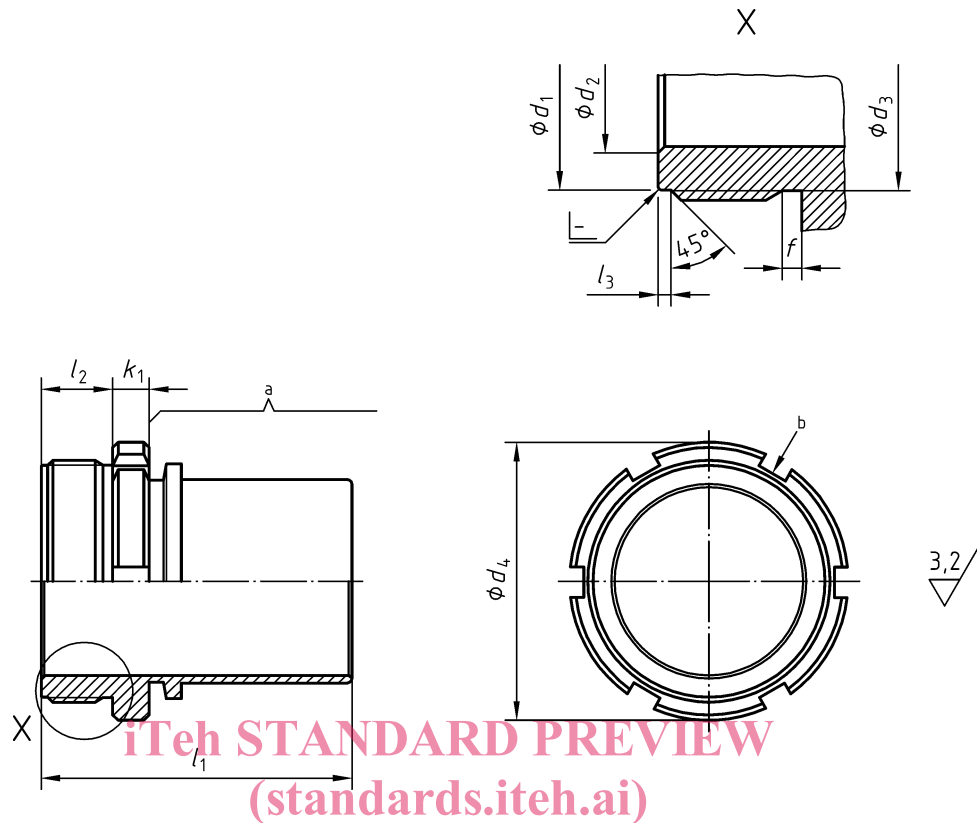
Die-forgings in wrought copper alloy shall be in accordance with EN 12420.

Castings should be in accordance with DIN 1687-3.

Dimensions for stainless steel:

Die-forgings shall be in accordance with EN 10243-1 and EN 10243-2.

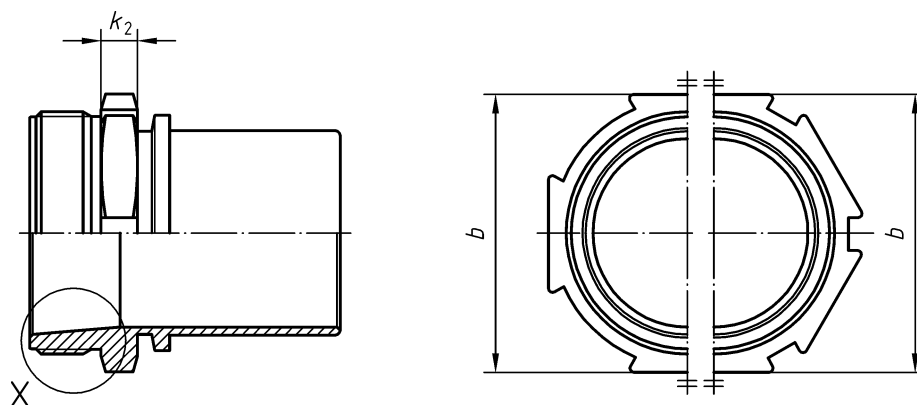
5.2 Hose tail with male pipe thread



Key

- a hose side part of tail according to EN 14420-2
 b slotted or bored

Figure 3 — Hose tail made of stainless steel or non-alloyed steel



For examples for type of collar, other dimensions and X, see Figure 3.

Figure 4 — Hose tail made of copper-zinc-alloy

Example for an ordering designation of a hose tail (SC) with male pipe thread according to EN ISO 228-1 (GA), nominal size DN 20 made of stainless steel (1.4571):

Hose tail EN 14420-5 — SC — GA 20 — 1.4571