



**SLOVENSKI STANDARD**  
**SIST EN 14420-2:2022**

**01-oktober-2022**

**Nadomešča:**  
**SIST EN 14420-2:2013**

---

**Cevni fitingi z objemkami - 2. del: Stranski cevni nastavki**

Hose fittings with clamp units - Part 2: Hose side parts of hose tail

Schlaucharmaturen mit Klemmfassungen - Teil 2: Schlauchseitige Stutzenteile

Raccords pour flexibles avec demi-coquille - Partie 2 : Douilles pour flexibles

**Ta slovenski standard je istoveten z: EN 14420-2:2022**

**ICS:**

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

**SIST EN 14420-2:2022**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 14420-2**

August 2022

ICS 23.040.70

Supersedes EN 14420-2:2013

English Version

## Hose fittings with clamp units - Part 2: Hose side parts of hose tail

Raccords pour flexibles avec demi-coquille - Partie 2 :  
Douilles pour flexibles

Schlaucharmaturen mit Klemmfassungen - Teil 2:  
Schlauchseitige Stutzenteile

This European Standard was approved by CEN on 24 July 2022.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

[SIST EN 14420-2:2022](https://standards.iteh.ai/catalog/standards/sist/75e42726-9b1b-431b-b5ac-6c228077cf91/sist-en-14420-2-2022)

<https://standards.iteh.ai/catalog/standards/sist/75e42726-9b1b-431b-b5ac-6c228077cf91/sist-en-14420-2-2022>



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>1 Scope</b> .....	<b>4</b>
<b>2 Normative references</b> .....	<b>4</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Dimensions</b> .....	<b>5</b>
<b>5 Materials</b> .....	<b>8</b>
<b>6 Marking</b> .....	<b>9</b>
<b>7 Type testing and quality control</b> .....	<b>9</b>
<b>Bibliography</b> .....	<b>10</b>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 14420-2:2022](https://standards.iteh.ai/catalog/standards/sist/75e42726-9b1b-431b-b5ac-6c228077cf91/sist-en-14420-2-2022)

<https://standards.iteh.ai/catalog/standards/sist/75e42726-9b1b-431b-b5ac-6c228077cf91/sist-en-14420-2-2022>

## European foreword

This document (EN 14420-2:2022) 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 February 2023, and conflicting national standards shall be withdrawn at the latest by February 2023.

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

This document supersedes EN 14420-2:2013.

In comparison to EN 14420-2:2013, the following changes have been made:

- In Clause 2 the normative references have been updated;
- In Clause 4, Table 1, for nominal size 100, the value of  $l_1$  has been changed from 96 mm to 106 mm.

The EN 14420 series, *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)*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

**EN 14420-2:2022 (E)****1 Scope**

This document specifies requirements for the hose tail of hose fittings according to EN 14420-1 for use with clamp units according to EN 14420-3. Furthermore, it specifies materials for hose fittings with clamp units according to EN 14420-4 to EN 14420-8.

Maximum working pressure is 25 bar<sup>1</sup>; maximum working temperature is 65 °C.

**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 755-2, *Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 2: Mechanical properties*

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

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 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: Electric welded and submerged arc welded non-alloy steel tubes with specified room temperature properties*

EN 10283, *Corrosion resistant steel castings*

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 14420-4, *Hose fittings with clamp units - Part 4: Flange connections*

EN 14420-5, *Hose fittings with clamp units - Part 5: Threaded connections*

EN 14420-6, *Hose fittings with clamp units - Part 6: TW tank truck couplings*

EN 14420-7, *Hose fittings with clamp units - Part 7: Cam locking couplings*

EN 14420-8, *Hose fittings with clamp units - Part 8: Symmetrical half coupling (Guillemin system)*

EN ISO 683-4, *Heat-treatable steels, alloy steels and free-cutting steels - Part 4: Free-cutting steels (ISO 683-4)*

EN ISO 8330, *Rubber and plastics hoses and hose assemblies - Vocabulary (ISO 8330)*

---

<sup>1</sup> 1 bar = 0,1 MPa.

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

#### 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 is not to 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 is to be indicated, e.g. DN/OD or DN/ID.

[SOURCE: EN ISO 6708:1995, 2.1, modified]

### 4 Dimensions

Types of fittings shall be chosen by the manufacturer depending on the application.

NOTE Details not specified in this document are at the discretion of the manufacturer. [standards.iteh.ai](https://standards.iteh.ai/)  
6c228077cf91/sist-en-14420-2-2022

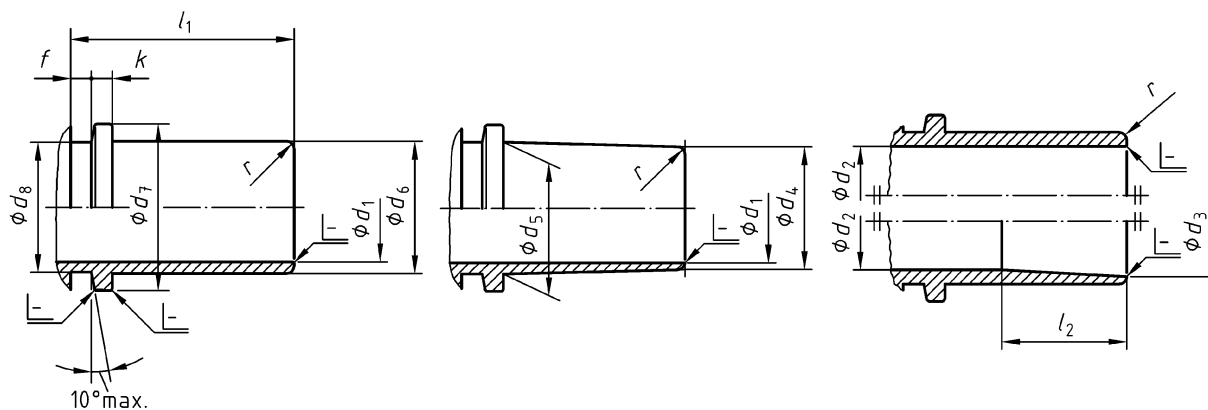
Grooves may be used on the outside surface of tails Type A, Type B or Type C, provided that their outside diameter is not less than  $d_4$  (see Figure 1, Type B).

Serration is admissible on the outside surface of tails of Type A and Type B of nominal size DN 15 to DN 80, whose outside diameter shall not exceed  $d_5$  (see Type B). For nominal sizes DN 100 to DN 200 serrations are admissible with outside diameter not more than 2,2 mm above  $d_6$ .

Grooves and ribs should be manufactured without sharp edges.

Dimensions for hose side parts of tail are given in Table 1.

## EN 14420-2:2022 (E)

**Type A**

DN 15 to DN 200

**Type B**

DN 15 to DN 80

**Type C**

DN 100 to DN 150

NOTE 1 Type B is not applicable to clamp unit S according to EN 14420-3.

NOTE 2 Type C - Inner contour cylindrical or conical at the discretion of the manufacturer. Other dimensions and specifications as type A.

**Figure 1 — Hose side parts of hose tail**

SIST EN 14420-2:2022

<https://standards.iteh.ai/catalog/standards/sist/75e42726-9b1b-431b-b5ac-6c228077cf91/sist-en-14420-2-2022>



Table 1 — Dimensions for hose side parts of tail

Dimensions in millimetres

Nominal size DN	Type	Inside diameter of hose		$d_1$	$d_2$	$d_3$	$d_4$		$d_5$		$d_6$	$d_7$	$d_8$	$f$	$k$	$l_1$	$l_2$	$r$		
				Tolerances	+0,5 0	max.	Tolerances	Tolerances	0 -0,4	Tolerances	Tolerances	+0,5 0	0 -0,5	min.	±5,0	±0,5				
15	A	-	13	9	0 -1	-	-	12,2	-	-	13,4	19	13	4	4	42	-	1,5		
20			19	15				18,2											min.	19,4
25			25	21				24 <sup>a</sup>	max.	25,4	32	25								
32			32	28				31 <sup>a</sup>		33,6 <sup>a</sup>	32,4	39	32							
40			B	38				33,5	-	-	37,8	±0,5	40						0 -0,8	38,4
50		50		45,5	49,5	52	50,4	58			50									
65		51		58,5	50,5	53	51,4	73			63		63							
		63			62,5	65,5	63,4				75									
80		75		70,5	74,5	77,4	75,4	85			75									
76		76	+0,5 -1,5	75,5	78,4	76,4	76,4	76,4												
100	C	100	94	90	94	-	-	-	-	100,3	110	100	±0,2	8	7,5	106	95	3		
150		101,5								101,8									150,1	164
		150	140	+0,5 -2	131	140	-	-	150,1	164	150									
200	-	200	190	+0,5 -2,5	-	-	-	-	200	219	+0 -2	200	17	12	230	-				

<sup>a</sup> At DN 25 and DN 32 dimensions  $d_4$  and  $d_5$  are given as limiting dimensions for grooves and ribs for tails type A.

## EN 14420-2:2022 (E)

## 5 Materials

Only materials listed below shall be used each in connection with the individual fittings according to EN 14420-4, EN 14420-5, EN 14420-6, EN 14420-7 and EN 14420-8 which are indicated there:

## a) Non-alloyed steels

S235JRG2	material number 1.0038 according to EN 10025-2
S355J0 (former St52-3U)	material number 1.0553 according to EN 10025-2
S355J2G3 (former St52-3N)	material number 1.0570 according to EN 10025-2
P235TR1	material number 1.0254 according to EN 10217-1
11 SMnPb 30	material number 1.0718 according to EN ISO 683-4

## b) Stainless steels

X5CrNi18-10	material number 1.4301 according to EN 10088-1
X5CrNiMo17-12-2	material number 1.4401 according to EN 10088-1
X2CrNiMo17-12-2	material number 1.4404 according to EN 10088-1
X6CrNiTi18-10	material number 1.4541 according to EN 10088-1
X6CrNiMoTi17-12-2	material number 1.4571 according to EN 10088-1
GX5CrNiMo19-11-2	material number 1.4408 according to EN 10213 and EN 10283
GX5CrNiMoNb19-11-12	material number 1.4581 according to EN 10213

## c) Copper-zinc alloys

CuZn39Pb3	material number CW614N according to EN 12420
CuZn40Pb2	material number CW617N according to EN 12420
GK-CuZn37Pb	material number CC754S according to EN 1982

## d) Copper-tin alloy

CuSn5Zn5Pb5-C	material number CC491K according to EN 1982
---------------	---

## e) Aluminium

Alu forged	material number EN AW-6082 according to EN 755-2
Alu bar materials	material number EN AW-6060 according to EN 755-2
Alu cast	material number EN AC-47000 according to EN 1706

## f) Hastelloy

Hastelloy B3	material number 2.4600
Hastelloy C22	material number 2.4602
Hastelloy C4	material number 2.4610
Hastelloy C2	material number 2.4819