



SLOVENSKI STANDARD
oSIST prEN 14420-2:2021
01-september-2021

Cevni fittingi 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: prEN 14420-2

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ICS:

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

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 14420-2

June 2021

ICS 23.040.70

Will supersede 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 Stützeile

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 218.

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

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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.

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

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

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European foreword

This document (prEN 14420-2:2021) 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 document is currently submitted to the CEN Enquiry.

This document will supersede 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.

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)*

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prEN 14420-2:2021 (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 bar¹⁾; 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)*

1) 1 bar = 0,1 MPa.

EN ISO 8330:2014, *Rubber and plastics hoses and hose assemblies - Vocabulary (ISO 8330:2014)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 8330:2014 and the following apply.

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

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

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]

4 Dimensions

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

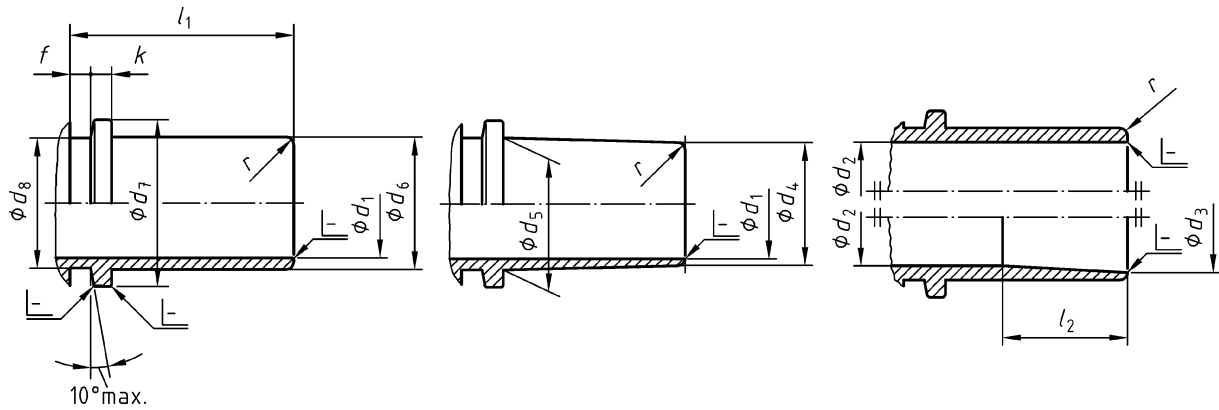
NOTE Details not specified in this document are at the discretion of the manufacturer.

Grooves are admissible 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 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.

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**Type A**

DN 15 to DN 200

Type B²⁾

DN 15 to DN 80

Type C

DN 100 to DN 150

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
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2) Type B not applicable to clamp unit S according to EN 14420-3.

Table 1 — Dimensions for hose side parts of tail

Dimensions in millimetres

Nominal size	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		Tolerances		Tolerances		$^{+0,5}_0$	$^0_{-0,5}$	min.	$\pm 5,0$	$\pm 0,5$														
15	A	-	13	9	$^{+0,5}_{-1}$	-	-	12,2	-	-	13,4	19	$\pm 0,1$	$\pm 0,1$	4	4	42	-	1,5														
20			19	15				18,4	-	-	19,4	26																					
25			25	21				24 ^a	26,6 ^a	25,4	32																						
32			32	28				31 ^a	33,6 ^a	32,4	39																						
40			38	33,5				37,8	40	38,4	45																						
50		B	50	$^{+0,5}_{-1,5}$				-	-	49,5	52	50,4								58	-	-	-	-	-	-	-	-	-	-			
			51							45,5	50,5	53								51,4											51,4	58	
			65							63	58,5	62,5								65,5											63,4	73	
			80							75	70,5	74,5								77,4											75,4	85	75
										76		75,5								78,4											76,4		
100	C	100	94	90	94	-	-	100,3	110	100	100	8	7,5	106	95	-	-																
		101,5						101,8																									
150	-	150	140	$^{+0,5}_{-2}$	131	140	-	-	-	-	150,1	164	150	$\pm 0,2$	13	10	166	144	3														
200	-	200	190	$^{+0,5}_{-2,5}$	-	-	-	-	-	-	200	219	$^{+0}_{-2}$	200	17	12	230	-															

^a 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.

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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
GX5CrNiMoNb19-11-12	material number 1.4581 according to EN 10213
GX5CrNiMo19-11-2	material number 1.4408 according to EN 10283

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
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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