



# SLOVENSKI STANDARD

## SIST EN 14420-4:2005

01-marec-2005

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### Cevni fitingi z objemkami - 4. del: Prirobnični priključki

Hose fittings with clamp units - Part 4: Flange connections

Schlaucharmaturen mit Klemmfassungen - Teil 4: Flanschanschlüsse

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

Ta slovenski standard je istoveten z: **EN 14420-4:2004**

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#### **ICS:**

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

**SIST EN 14420-4:2005**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 14420-4**

November 2004

ICS 23.040.70

English version

## Hose fittings with clamp units - Part 4: Flange connections

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

Schlaucharmaturen mit Klemmfassungen - Teil 4:  
Flanschanschlüsse

This European Standard was approved by CEN on 30 September 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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

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## Foreword

This document (EN 14420-4:2004) 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of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

EN 14420 consists at the time of publication of the following parts:

EN 14420-1, *Hose fittings with clamp units — Part 1: Requirements, survey, 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 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)*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom

**EN 14420-4:2004 (E)****1 Scope**

This document specifies requirements for hose tails according to EN 14420-2 with flanges of mating dimensions PN 10 according to EN 1092-1, on hose fittings with clamp units according to EN 14420-3.

Maximum working pressure 25 bar, maximum working temperature 65 °C.

**2 Normative references**

The following referenced documents are indispensable for the application 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 288-4, *Specification and approval of welding procedures for metallic materials — Part 4: Welding procedure tests for the arc welding of aluminium and its alloys*

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

EN 1289, *Non-destructive examination of welds — Penetrant testing of welds — Acceptance levels*

EN 1290, *Non-destructive examination of welds — Magnetic particle examination of welds*

EN 1291, *Non-destructive examination of welds — Magnetic particle testing of welds — Acceptance levels*

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

EN 1712, *Non-destructive examination of welds — Ultrasonic examination of welded joints — Acceptance levels*

EN 1713, *Non-destructive examination of welds — Ultrasonic examination — Characterization of indications in welds*

EN 1714, *Non-destructive examination of welds — Ultrasonic examination of welded joints*

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

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 14420-1, *Hose fittings with clamp units — Part 1: Requirements, survey, 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 2768-1:1989)*

EN 22768-2, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications (ISO 2768-2:1989)*

EN ISO 4042, *Fasteners — Electroplated coatings (ISO 4042:1999)*

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 15614-1/2004)*

### 3 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.

Dimensions in millimetres

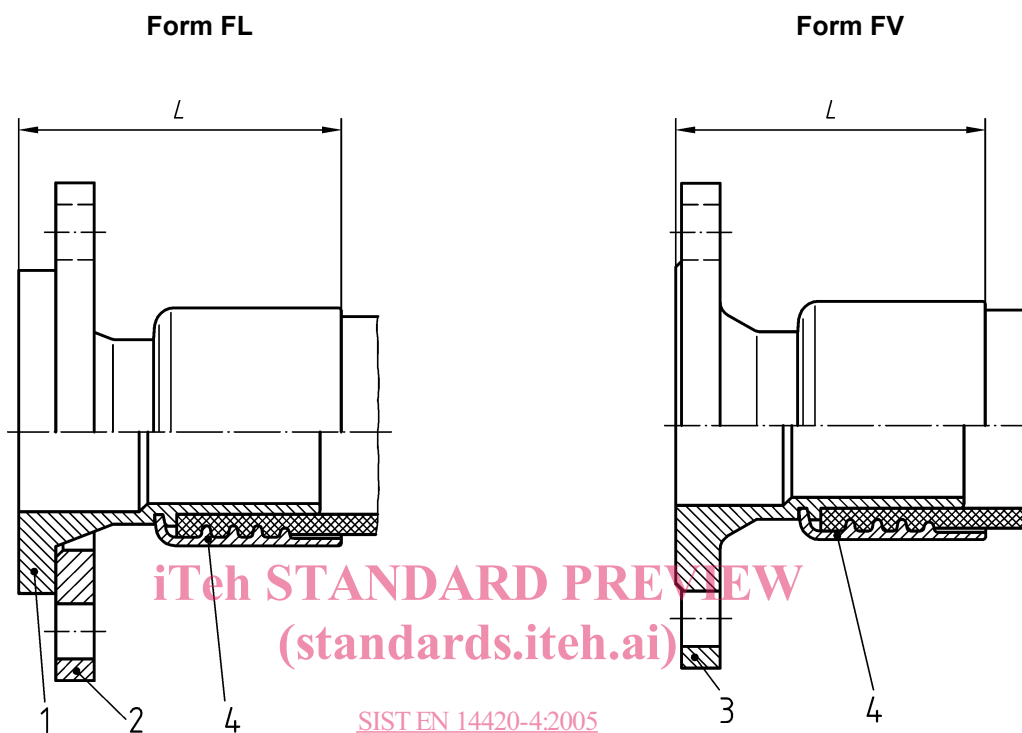


Figure 1 — Example of loose flange

Figure 2 — Example of fixed flange

Table 1 — Parts list

Item No.	Designation	Remark
1	Hose tail with fixed collar	According to 4.2
2	Loose flange	According to EN 1092-1 <sup>a</sup>
3	Hose tail with fixed flange	According to 4.3
4	Clamp unit	According to EN 14420-3

<sup>a</sup> During assembly measures shall be taken to avoid falling back of the loose flange.

Designation of a complete hose fitting see EN 14420-1.

Table 2 — End-to-end dimensions and weights

Nominal size  DN	Hose fitting with loose flange and weld neck collar		Hose fitting with fixed flange	
	End-to-end dimension <i>L</i> mm min.	Weight (mass) kg <sup>a</sup> ≈	End-to-end dimension <i>L</i> mm min.	Weight (mass) kg <sup>a</sup> ≈
15	93	0,9	92	0,8
20	94	1,1	92	1,1
25	94	1,6	92	1,4
32	96	2,2	96	2
40	101	2,7	103	2,2
50	113	3,5	113	3,1
65	131	4,3	131	3,9
80	139	5,6	139	4,7
100	155	7,1	157	6,5
150	246	15,5	251	15
200	311	25	318	24,4

<sup>a</sup> The weights of the complete hose fitting apply for clamp units in aluminium.

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## 4 Dimensions, designations

### 4.1 General

The general tolerances for the dimensions of machined parts shall be in accordance with EN 22768-mK

The tolerances of flanges shall be according to EN 1092-1, if nothing else agreed at the discretion of the manufacturer.

NOTE 1 The hose tail consists of a weld neck collar or a fixed flange with weld-on tail according to 4.4 respectively.

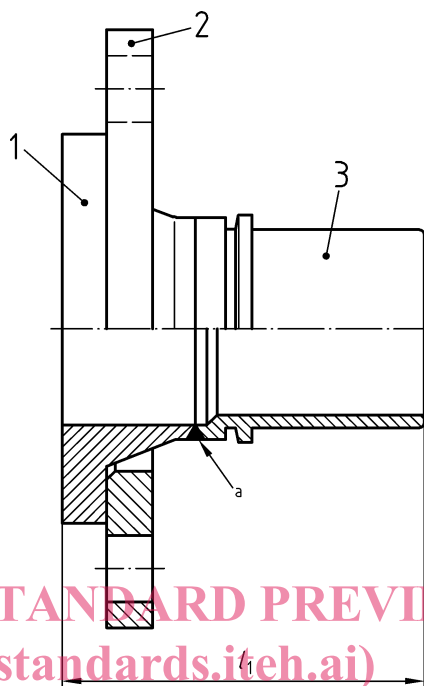
NOTE 2 Hose tails according to 4.2 and 4.3 may be fabricated from a single part (without welding). Hereafter the dimension  $l_1$  may be reduced by the dimension  $l_3$  according to Table 5.

Dimensions of the loose or fixed flange shall be as given in EN 1092-1 but the bore transition from tail inside diameter to inside diameter of the loose or fixed flange shall be bevelled.



## 4.2 Hose tail with weld neck collar and loose flange

- SC-FL (with loose flange)
- SC-FLB (without loose flange)



### Key

- 1 Weld-neck collar according to EN 1092-1
- 2 Loose flange according to EN 1092-1
- 3 Hose side part according to 4.4
- a Example for possible welding connection see 4.5

- 1) Different from EN 1092-1 nominal size DN 80 with 8 bolt holes.

**Figure 1 — Hose tail with weld neck collar and loose flange**

Example for an ordering designation of a hose tail with weld neck collar without loose flange (SC-FLB) with nominal size DN 50, material number 1.0038:

Hose tail EN 14420-4 — SC — FLB 50 — 1.0038