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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 14420-8:2013+A1:2016 sisaldab Euroopa standardi EN 14420-8:2013+A1:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 14420-8:2013+A1:2016 consists of the English text of the European standard EN 14420-8:2013+A1:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

## Hose fittings with clamp units - Part 8: Symmetrical half coupling (Guillemin system)

Raccords pour flexibles avec demi-coquille - Partie 8:  
Demi raccords symétriques (système Guillemin)

Schlaucharmaturen mit Klemmfassungen - Teil 8:  
Symmetrische Kupplungen (System Guillemin)

This European Standard was approved by CEN on 15 May 2013 and includes Amendment 1 approved by CEN on 7 December 2015.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## European foreword

This document (EN 14420-8:2013+A1:2016) 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of an identical text or by endorsement, at the latest by August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

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 includes Amendment 1 approved by CEN on 2015-12-07.

This document supersedes <sup>A1</sup> EN 14420-8:2013 <sup>A1</sup>.

The start and finish of text introduced or altered by amendment is indicated in the text by tags <sup>A1</sup> <sup>A1</sup>.

<sup>A1</sup> deleted text <sup>A1</sup>

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 organizations 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 dimensions, types of connections, quality of materials, marking requirements and testing requirements for hose fittings with symmetrical half couplings (Guillemin system), with mobile locking ring, for hose assemblies with a maximum working pressure of up to 10 bar<sup>1)</sup> with hose tails according to EN 14420-2 and clamp units according to EN 14420-3. Couplings in accordance with this document serve as link between hoses and connections to transport liquids, solids (e.g. powders, granules) except steam and liquid gas. The working temperature range is –20 °C up to +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 573-3, *Aluminium and aluminium alloys — Chemical composition and form of wrought products — Part 3: Chemical composition and form of products*

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

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

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

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

EN 10213 *Steel castings for pressure 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*

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 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)*

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

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

##### **main gasket**

interface gasket between the male and female part of a coupling

#### 3.3

##### **thread gasket**

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

## 4 Requirements

### 4.1 Pressures

Symmetrical half-couplings (Guillemin system), with mobile locking-ring, shall resist to the following pressures:

- a) Maximum working pressure = 16 bar  $\text{A}_1$  (see also EN 14420-1:2013, 4.3)  $\text{A}_1$ ;
- b) Test pressure = 24 bar;
- c) Minimum burst pressure = 48 bar.

NOTE 1 bar = 0,1 MPa.

### 4.2 Temperatures

The range of working temperatures of couplings equipped with nitrile butadiene rubber gasket (NBR-gasket) is  $-20\text{ }^{\circ}\text{C}$  to  $+65\text{ }^{\circ}\text{C}$ .

## 5 Components

Figure 1 shows a coupling with hose tail (Type SGD) and a plug (Type SGB) as samples.