

Hose fittings with clamp units - Part 6: TW tank truck couplings

Hose fittings with clamp units - Part 6: TW tank truck couplings

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14420-6:2005+A1:2007 sisaldab Euroopa standardi EN 14420-6:2004+A1:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.02.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14420-6:2005+A1:2007 consists of the English text of the European standard EN 14420-6:2004+A1:2007.</p> <p>This document is endorsed on 28.02.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala:</p> <p>This document specifies the design, materials and dimensions for hose fittings with couplings for tank trucks (TW couplings). Couplings for tank trucks in accordance to this document are intended to link hoses with connections for the transport of liquids, solid matters and gases with the exception of liquid gas and steam. They can be employed in a working pressure range of – !0,8 bar" up to !16 bar" at working temperatures of – 20 °C up to + 65 °C. Couplings for tank trucks for other operating conditions are subject to agreement.</p>	<p>Scope:</p> <p>This document specifies the design, materials and dimensions for hose fittings with couplings for tank trucks (TW couplings). Couplings for tank trucks in accordance to this document are intended to link hoses with connections for the transport of liquids, solid matters and gases with the exception of liquid gas and steam. They can be employed in a working pressure range of – !0,8 bar" up to !16 bar" at working temperatures of – 20 °C up to + 65 °C. Couplings for tank trucks for other operating conditions are subject to agreement.</p>
--	--

ICS 23.040.70

Võtmesõnad: hose con, hose fittings, hydraulic equipment, marking, materials, measurement, pipe connections, pipe fittings, road tankers, specification (approval), specifications, stoppers, tank lorry coupling, tank trucks, testing, tolerances, tolerances (measurement), valves

English Version

Hose fittings with clamp units - Part 6: TW tank truck couplings

Raccords pour flexibles avec demi-coquille - Partie 6:
Raccords TW pour camion-citerne

Schlaucharmaturen mit Klemmfassungen - Teil 6: TW
Tankwagen-Kupplungen

This European Standard was approved by CEN on 30 September 2004 and includes Amendment 1 approved by CEN on 13 December 2006.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

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

Contents

	page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Survey	4
4 Dimensions, designations	5
4.1 Hose fittings with TW couplings	5
4.1.1 General.....	5
4.1.2 Hose tail with female TW coupling.....	6
4.1.3 Hose tail with male TW coupling.....	7
4.1.4 Protecting ring	8
4.2 Male coupling (type VK)	9
4.2.1 General.....	9
4.2.2 Components.....	10
4.3 Female coupling (type MK)	12
4.3.1 Female coupling (type MK) DN 50 and DN 80	12
4.3.2 Female coupling (type MK) DN 100.....	13
4.3.3 Designation	14
4.3.4 Components.....	14
4.4 Dust cap (type MB)	20
4.4.1 General.....	20
4.4.2 Components.....	22
4.5 Dust plug (type VB).....	24
4.5.1 General.....	24
4.5.2 Components	25
5 Materials	28
5.1 General.....	28
5.2 Hose tail types MKST and VKST	28
5.3 Protecting rings of hose tail type MKST and VKST	28
5.4 Thread sealing ring of male coupling type VK	28
5.5 Fastening component of female coupling type MK	28
5.6 Sealing ring of female coupling type MK	29
6 Design	29
7 Type approval testing and quality control	29
7.1 General.....	29
7.2 Testing for trueness to gauge size	30
8 Marking	30
9 Fitting of hose couplings.	30
Annex A (normative) Gauges for TW tank truck couplings.....	31
A.1 General.....	31
A.2 Design; designation, dimensions and materials	31
A.2.1 General.....	31
A.2.2 Gauge for sealing ring.....	32
A.2.3 Gauge for tension rings	36
A.2.4 Gauge for curved pieces and plugs.....	38
A.2.5 Calliper for caps.....	41
A.3 Marking	43
Bibliography	44

Foreword

This document (EN 14420-6:2004+A1:2007) 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 July 2007, and conflicting national standards shall be withdrawn at the latest by July 2007.

This document includes Amendment 1, approved by CEN on 2006-12-13.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** and **A1**.

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 couplings (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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This document specifies the design, materials and dimensions for hose fittings with couplings for tank trucks (TW couplings).

Couplings for tank trucks in accordance to this document are intended to link hoses with connections for the transport of liquids, solid matters and gases with the exception of liquid gas and steam. They can be employed in a working pressure range of – $\sqrt{A_1}$ 0,8 bar $\sqrt{A_1}$ up to $\sqrt{A_1}$ 16 bar $\sqrt{A_1}$ at working temperatures of – 20 °C up to + 65 °C. Couplings for tank trucks for other operating conditions are subject to agreement.

WARNING Male and female dust couplings are pressure resistant plugs. They do not work as locking device, so, if pipelines remain under pressure, a locking device shall be superposed.

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 586-2, *Aluminium and aluminium alloys — Forgings — Part 2: Mechanical properties and additional property requirements*

EN 10083-2, *Quenched and tempered steels — Part 2: Technical delivery conditions for unalloyed quality steels*

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

EN 10213-4, *Technical delivery conditions for steel castings for pressure purposes — Part 4: Austenitic and austenitic-ferritic steel grades*

EN 12420, *Copper and copper alloy — Forgings*

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 14420-5, *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 2768:1989)*

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

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

ISO 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (Hardness between 10 IRHD and 100 IRHD)*

3 Survey

Hose fittings with TW coupling: Female coupling (Type MKS) and male coupling (Type VKS).

Usual fitting combination for the filling of the storage tank: Female coupling (Type MK) and male coupling (Type VK).

Usual fitting combination for closing off the outlet end of the TW: Female coupling (Type MK) and male dust coupling (Type VB).