



**SLOVENSKI STANDARD**  
**SIST EN 13314:2003**  
**01-december-2003**

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**Cisterne za prevoz nevarnega blaga - Oprema za obratovanje cistern - Pokrov polnilne odprtine**

Tanks for transport of dangerous goods - Service equipment for tanks - Fill hole cover

Tanks für die Beförderung gefährlicher Güter - Bedienungsausrüstung von Tanks - Fülllochdeckel

**iTeh STANDARD PREVIEW**

Citernes de transport de matieres dangereuses - Equipements de service pour citernes - Couvercle de trou de remplissage

[SIST EN 13314:2003](https://standards.iteh.ai/catalog/standards/sist/ea8c1d0e-abc8-40c8-830e-1a0191b9e8B/sist-en-13314-2003)

**Ta slovenski standard je istoveten z: EN 13314:2002**

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**ICS:**

13.300	Varstvo pred nevarnimi izdelki	Protection against dangerous goods
23.020.20	Posode in vsebniki, montirani na vozila	Vessels and containers mounted on vehicles

**SIST EN 13314:2003**

**en**

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EUROPEAN STANDARD

EN 13314

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2002

ICS 13.300; 23.020.20

English version

## Tanks for transport of dangerous goods - Service equipment for tanks - Fill hole cover

Citernes de transport de matières dangereuses -  
Equipements de service pour citernes - Couvercle de trou  
de remplissage

Tanks für die Beförderung gefährlicher Güter -  
Bedienungsausrüstung von Tanks - Fülllochdeckel

This European Standard was approved by CEN on 19 August 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 13314:2002) has been prepared by Technical Committee CEN /TC 296, "Tanks for transport of dangerous goods", the secretariat of which is held by AFNOR.

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 April 2003, and conflicting national standards shall be withdrawn at the latest by April 2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports the objectives of the framework Directives on Transport of Dangerous Goods.

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR. Therefore in this context the standards listed in the normative references and covering basic requirements of the RID/ADR not addressed within the present standard are normative only when the standards themselves are referred to in the RID and/or in the technical annexes of the ADR.

This European Standard forms part of a coherent standards programme comprising the following standards:

*Tanks for transport of dangerous goods - Service equipment for tanks*

EN 13081, *Vapour collection adaptor and coupler.*

EN 13082, *Vapour transfer valve.*

EN 13083, *Adapter for bottom loading and unloading.*

prEN 13308, *Non-pressure balanced footvalve.*

EN 13314, *Fill hole cover.*

EN 13315, *Gravity discharge coupler.*

prEN 13316, *Pressure balanced footvalve.*

prEN 13317, *Manhole cover assembly.*

WI 296009, *Pressure and vacuum breather vent.*

WI 296010, *Emergency pressure relief valve.*

Annex A is normative.

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

**EN 13314:2002 (E)****Introduction**

The fill hole cover, the subject of this standard, is an operating device on top of a transportable tank which allows the opening and closing of the fill hole.

The fill hole cover allows the top filling of the tank compartment.

The fill hole cover may also act as a liquid or vapour emergency pressure relief valve.

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## 1 Scope

This European Standard covers the fill hole cover and specifies the performance requirements, dimensions and tests necessary to verify the compliance of the equipment to this standard.

The equipment specified by this standard is suitable for use with liquid petroleum products and other dangerous substances of Class 3 of ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road – (flammable liquids) which have a vapour pressure not exceeding 110 kPa at 50 °C and petrol, and which have no-sub-classification as toxic or corrosive.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

prEN 12266-1:1999, *Industrial valves - Testing of valves - Part 1: Tests, test procedures and acceptance criteria to be fulfilled by every valve.*

EN 12266-2, *Industrial valves - Testing of valves - Part 2: Tests, test procedures and acceptance criteria. - Supplementary requirements.*

prEN 13094, *Tanks for transport of dangerous goods - Low-pressure metallic tanks - Design and construction.*

prEN 14025, *Tanks for transport of dangerous goods - Metallic pressure tanks - Design and construction.*

ISO 2859-1, *Sampling procedures for inspection by attributes - Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.*

## 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

### 3.1

#### **fill hole**

opening in a tank or in a manhole cover assembly to allow top filling of a tank compartment

### 3.2

#### **fill hole cover neckring**

a shell ring joined to the tank in accordance with prEN 13094 or prEN 14025 or to the manhole cover assembly which provides the attachment facilities for the fill hole cover

### 3.3

#### **manhole cover plate**

plate covering the manhole which may include auxiliary equipment such as fill hole cover assembly, vapour transfer valve, sensors, etc.

### 3.4

#### **fill hole cover gasket**

a device which ensures the seal between neckring and the fill hole cover

### 3.5

#### **maximum allowable working pressure (MAWP)**

the maximum pressure to which the equipment is designed to operate

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### 3.6

#### **manhole cover assembly**

assembly comprising manhole cover plate and gaskets and may include devices to secure it to the tank shell neckring

## 4 Function

The fill hole cover allows the closing and the opening of the fill hole. The fill hole cover may include an emergency pressure relief valve and other devices.

## 5 Design characteristics

### 5.1 Leak tightness

#### 5.1.1 Pressure tightness

When closed, the fill hole cover shall be designed to be vapour and liquid tight in any orientation, at any positive or negative pressure within the maximum allowable working pressure range of the tank compartment to which it shall be fitted.

#### 5.1.2 Drop test

Each type of fill hole cover shall be structurally capable of withstanding, without leakage or permanent deformation that would affect its structural integrity, a drop test as described in 6.3.3.

### 5.2 Temperature range

Unless otherwise specified, the design temperature range shall be  $-20\text{ °C}$  to  $50\text{ °C}$ .

Where the fill hole cover is subjected to more severe conditions, the design temperature range shall be extended to  $-40\text{ °C}$  or  $+70\text{ °C}$  as applicable.

### 5.3 Latching mechanism

The fill hole cover shall be fitted with device(s) which shall provide secure closing and, in order to prevent uncontrolled opening, shall ensure that any pressure differential between the tank compartment and atmosphere shall be relieved safely before the fill hole cover can be fully opened.

The closing device may include secondary locking.

### 5.4 Materials of construction

The manufacturer shall provide with the equipment a full material specification for those parts that may come into contact with the substances specified in the scope. Movable parts such as covers, closures etc. which are liable to come into frictional or percussive contact with aluminium shells shall not be made of unprotected, corrodible steel.

### 5.5 Dimensional characteristics

The internal diameter of the fill hole shall not be less than 250 mm.

The height of any part of the fill hole cover assembly when closed shall not exceed 150 mm above its mounting face.



## 5.6 Electrical resistance

The electrical resistance between any conductive part of the fill hole cover which may come into contact with the dangerous substances and the fill hole cover neckring shall not exceed  $10^6 \Omega$ .

Provision shall be made for the bonding of the fill hole cover neckring to the tank such that the electrical resistance between the two shall not exceed  $10 \Omega$ .

## 6 Tests

### 6.1 General

Two classes of tests are required, production tests and type tests.

Testing methods and procedures shall comply with the requirements of prEN 12266-1 and EN 12266-2 except as specified or amended within this standard.

### 6.2 Production tests

#### 6.2.1 General

The number, frequency and sampling methods of production test samples shall not be less than those specified within ISO 2859-1 (AQL of 2,5).

Production tests shall comprise:

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— seat tightness test (see A.4 of prEN 12266-1:1999).

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#### 6.2.2 Seat tightness test

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**6.2.2.1** Valve classification type (for test method selection only): diaphragm valve (see Table A.3 of prEN 12266-1:1999).

**6.2.2.2** Test pressure: shall be the greater of 65 kPa or, 1,3 times the MAWP of the fill hole cover.

**6.2.2.3** Test duration: as Table A.4 of prEN 12266-1:1999.

**6.2.2.4** Acceptance criteria: rate A (see Table A.5 of prEN 12266-1:1999).

#### 6.2.3 Test results

Test results shall be recorded and maintained in accordance with the manufacturer's procedures.

### 6.3 Type tests

#### 6.3.1 General

A minimum of 2 production samples of each model type shall be type tested to demonstrate the performance and mechanical strength of the design.

NOTE Devices having one design, size and set pressure are considered to be of one model type.

Unless otherwise noted, all type tests shall be performed at maximum and minimum design temperatures.

Type tests shall comprise:

— seat tightness test;