SLOVENSKI STANDARD
SIST EN 13082:2009

01-april-2009

Nadomeģ a:
SIST EN 13082:2002

Rezervoarji za prevoz nevarnega blaga - Oprema za oskrbovanje rezervoarjev - Ventil za izenaļ itev parnega tlaka

Tanks for transport of dangerous goods - Service equipment for tanks - Vapour transfer valve

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

Citernes de transport de matieres dangereuses - Equipement de service pour citernes - Event de transfert des vapeurs récupérées

Ta slovenski standard je istoveten z: **EN 13082:2008**

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
23.060.20	Zapirni ventili (kroglasti in pipe)	Ball and plug valves

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EUROPEAN STANDARD

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ICS 13.300; 23.020.20; 23.060.20

Supersedes EN 13082:2001

English Version

Tanks for transport of dangerous goods - Service equipment for tanks - Vapour transfer valve

Citernes de transport de matières dangereuses - Equipement de service pour citernes - Event de transfert des vapeurs récupérées

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

This European Standard was approved by CEN on 13 September 2008.

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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.

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Foreword

This document (EN 13082:2008) 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 May 2009, and conflicting national standards shall be withdrawn at the latest by May 2009.

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 supersedes EN 13082:2001.

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR [2]. 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,, under the general title "Tanks for transport of dangerous goods - Service equipment for tanks":

EN 13081, *Vapour collection adaptor and coupler*

EN 13082, *Vapour transfer valve*

EN 13083, *Adaptor for bottom loading and unloading*

EN 13308, *Non-pressure balanced footvalve*

EN 13314, *Fill hole cover*

EN 13315, *Gravity discharge coupler*

EN 13316, *Pressure balanced footvalve*

EN 13317, *Manhole cover assembly*

EN 13922, *Overfill prevention systems for liquid fuels*

EN 14595, *Pressure and Vacuum Breather Vent*

EN 14596, *Emergency pressure relief valve*

EN 15208, *Sealed parcel delivery systems – Working principles and interface specifications*

The standards programme also includes the following Technical Report:

CEN/TR 15120, *Guidance and recommendations for loading, transport and unloading*.

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 the United Kingdom.

Introduction

The vapour transfer valve is part of the vapour collection system that is required to comply with the European Directive 94/63/EC on Volatile Organic Compounds (VOC) [1].

The vapour transfer valve, subject of this European Standard, governs the transfer of vapour between the vehicle compartment, the gantry equipment and the service-station tank storage during loading and unloading operations.

1 Scope

This European Standard covers the vapour transfer valve, used for the transfer of vapour between the tank compartment and the pipework connecting to the vapour collection adaptor.

This European Standard specifies the performance requirements and the critical dimensions of the vapour transfer valve. It also specifies the tests necessary to verify the compliance of the equipment with this European Standard. The equipment specified by this standard is suitable for use with liquid petroleum products and other dangerous substances of Class 3 of ADR [2] 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

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 12266-1:2003, *Industrial valves — Testing of valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

EN 12266-2:2002, *Industrial valves — Testing of valves — Part 2: Tests, test procedures and acceptance criteria — Supplementary requirements*

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
vapour collection manifold
volume into which each vapour transfer valve from each compartment is connected and which connects to the vapour collection adaptor

3.2
Maximum Working Pressure (MWP) (gauge pressure)
maximum pressure to which the equipment is designed to operate, being the highest of the following three pressures:

a) highest effective pressure allowed in the tank during filling (maximum filling pressure allowed)

b) highest effective pressure allowed in the tank during discharge (maximum discharge pressure allowed)

c) effective gauge pressure to which the tank is subjected by its contents (including such extraneous gases as it may contain) at the maximum working temperature

3.3
sequential function
ability to provide a ‘valve open’ signal

4 Functions

The vapour transfer valve shall:

— when opened, allow the transfer of vapour between the tank compartment and the vapour collection manifold;

— when closed, ensure the confinement of the transported vapour and/or liquid in any orientation.

When open, the vapour transfer valve may prevent the transfer of liquid between tank compartments via the vapour collection manifold.

5 Design characteristics

5.1 General

If the vapour transfer valve incorporates other functionalities, such as the pressure and vacuum breather vent, they shall not jeopardize or modify the requirements of this European Standard.

5.2 Performance characteristics

The manufacturer shall provide the pressure drop curve at the following conditions:

— flow rate up to 300 standard m^3/h of air at 20 °C (300 standard m^3/h of air corresponds to the bottom loading of the compartment at 150 m^3/h flow of substances).

5.3 Temperature range

Unless otherwise specified, the design temperature range shall be – 20 °C to + 50 °C.

Where the vapour transfer valve is subjected to more severe conditions, the design temperature range shall be extended to – 40 °C or + 70 °C as applicable.

5.4 Actuation

The vapour transfer valve may be operated by remote means.

The vapour transfer valve may have a sequential function.

In case of failure of the operating devices, the valve shall return automatically to its closed position.

5.5 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 described by Clause 1.

5.6 Dimensional characteristics

5.6.1 Maximum height

The design of the valve shall ensure that no part of the valve assembly extends more than 150 mm above the valve's mounting face (see Annex B, Figure B.1).

5.6.2 Flanged connection type

The mounting flange of the vapour transfer valve shall have the following dimensions and the holes shall straddle valve centre line:

— flange size	:	80	100;
— spigot diameter (maximum)	:	106 mm	122 mm;
— pitch circle diameter	:	130 mm	150 mm;
— number of equispaced holes (minimum)	:	8 (4)	8 (4);
— hole diameter	:	12 mm	14 mm;
— tolerances	:	± 1 mm	± 1 mm.

5.6.3 Through hole connection type

This shall have a threaded spigot of 98 millimetres maximum diameter with lock nut, to suit a clamping thickness range of 5 millimetres to 15 millimetres.

6 Tests

6.1 General

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

Testing methods and procedures shall conform to EN 12266-1 and EN 12266-2 except as specified within this European Standard.

Unless otherwise specified, test fluids shall be air or other suitable gas. The choice of the fluid is the responsibility of the manufacturer.

NOTE Where the obturator forms part of the pressure containing shell, it may be closed during strength and tightness tests.

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 the following:

— shell tightness test;

— internal seat tightness test; and

— operability test.