SLOVENSKI STANDARD
SIST EN 17110:2018

01-november-2018

Cisterne za prevoz nevarnega blaga - Oprema za obratovanje cistern - Oddušni ventil za zbiralnik plinske faze

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

Tanks für die Beförderung gefährlicher Güter - Bedienungsausrüstung von Tanks - Be- und Entlüftungsventil für Gassammelleitungen

Citernes destinées au transport de matières dangereuses - Équipement de service - Évent de transfert pour collecteur de vapeurs

Ta slovenski standard je istoveten z: **EN 17110:2018**

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
23.060.99	Drugi ventili	Other valves

SIST EN 17110:2018 **en,fr,de**

EUROPEAN STANDARD

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EN 17110

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ICS 13.300; 23.020.20; 23.060.99

English Version

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

Citernes destinées au transport de matières dangereuses - Équipement de service - Évent de transfert pour collecteur de vapeurs

Tanks für die Beförderung gefährlicher Güter - Bedienungsausrüstung von Tanks - Be- und Entlüftungsventil für Gassammelleitungen

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 17110:2018) 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of an identical text or by endorsement, at the latest by February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document forms part of a coherent standards programme (i.e. Tanks for transport of liquid dangerous goods with vapour pressure not exceeding 110 kPa (absolute pressure) at 50° C and petrol - Service equipment).

This standards programme comprises the following standards:

EN 13081, *Tanks for Transport of dangerous goods — service equipment for tanks — vapour collection adaptor and coupler*

EN 13082, *Tanks for transport of dangerous goods — Service equipment for tanks — Vapour transfer valve*

EN 13083, *Tanks for transport of dangerous goods — Service equipment for tanks — Adaptor for bottom loading and unloading*

EN 13308, *Tanks for transport of dangerous goods — Service equipment for tanks — Non-pressure balanced footvalve*

EN 13314, *Tanks for transport of dangerous goods — Service equipment for tanks — Fill hole cover*

EN 13315, *Tanks for transport of dangerous goods — Service equipment for tanks — Gravity discharge coupler*

EN 13316, *Tanks for transport of dangerous goods — Service equipment for tanks — Pressure balanced footvalve*

EN 13317, *Tanks for transport of dangerous goods — Service equipment for tanks — Manhole cover assembly*

EN 14595, *Tanks for transport of dangerous goods — Service equipment — Breather device*

EN 14596, *Tanks for transport of dangerous goods — Service equipment for tanks — Emergency pressure relief valve*

EN 16249, *Tanks for the transport of dangerous goods — Service equipment — Cap for the adaptor for bottom loading and unloading*

EN 16257, *Tanks for the transport of dangerous goods — Service equipment — Footvalve sizes other than 100 mm dia. (nom)*

EN 16522, *Tanks for transport of dangerous goods — Service equipment for tanks — Flame arresters for breather devices*

This document includes a Bibliography.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The vapour manifold vent valve allows the controlled release of vapour from the vapour manifold and the controlled entry of atmospheric air into the vapour manifold. It may also include a breathing function.

1 Scope

This document covers the vapour manifold vent valve used to provide controlled venting of the vapour manifold to atmosphere.

It specifies the performance requirements and the critical dimensions of the vapour manifold vent valve. It also specifies the tests necessary to verify compliance of the equipment with this document.

The service equipment specified by this document is suitable for use with liquid petroleum products and other dangerous substances of Class 3 of ADR [1] 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 documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12266-1:2012, *Industrial valves — Testing of metallic valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

EN 12266-2:2012, *Industrial valves — Testing of metallic valves — Part 2: Tests, test procedures and acceptance criteria — Supplementary requirements*

EN 14564, *Tanks for transport of dangerous goods — Terminology*

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

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14564 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 Functions

The vapour manifold vent valve

— shall provide controlled venting of the vapour manifold;

— shall be vapour tight when closed;

— may be provided with a flame arrester;

— may be self-operating;

— may be provided with an open/closed indicator;

— may provide pressure and vacuum breathing for the vapour manifold.

5 Design characteristics

5.1 General

The vapour manifold vent valve shall provide a controlled vapour path between the vapour manifold and atmosphere.

The vapour manifold vent valve shall be closed during the process of vapour recovery, both loading and delivery.

Self-operating valves shall not compromise the vapour recovery process. Such valves shall be of the resealing type, and shall be designed to prevent unauthorized adjustment of the self-operating mechanism.

When not activated the valve shall return automatically to its passive state.

5.2 Pressure and vacuum breathing

When provided, the pressure and vacuum breathing characteristics shall be:

— pressure relief opening setting - not to exceed 12 kPa (gauge);

— vacuum relief opening setting - between −0,8 kPa (gauge) and −2,5 kPa (gauge).

5.3 Ingress protection

The vapour manifold vent valve shall be designed, or provision made, to meet the requirements of IP 21 in accordance with EN 60529.

5.4 Flow capacity

A flow performance against pressure drop diagram (standard m^3/h at 20 °C) shall be provided by the manufacturer for pressure and/or vacuum functions.

5.5 Temperature range

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

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

5.6 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 in Clause 1.

5.7 Dimensional characteristics

5.7.1 Maximum dimensions

Top mounted valves shall be accommodated within the tank top protection