1. SEERIA VEOKONTEINERID
Nurga- ja vahekinnitid
Spetsifikatsioon

Series 1 freight containers
Corner and intermediate fittings
Specifications
(ISO 1161:2016)

EESTI STANDARDI EESSÕNA

See Eesti standard EVS-ISO 1161:2017 „1. seeria veokonteinerid. Nurga- ja vahekinnitid. Spetsifikatsioon“ sisaldab rahvusvahelise standardi ISO 1161:2016 „Series 1 freight containers – Corner and intermediate fittings – Specifications“ identset ingliskeelset teksti.

Ettepaneku rahvusvahelise standardi ümbertrüki meetodil ülevõtuks on esitanud EVS/TK 16, standardi avaldamist on korraldanud Eesti Standardikeskus.

Standard EVS-ISO 1161:2017 on jõustunud sellekohase teate avaldamisega EVS Teataja 2017. aasta veebruarikuu numbris.

Standard on kättesaadav Eesti Standardikeskusest.

NATIONAL FOREWORD

This Estonian Standard EVS-ISO 1161:2017 consists of the identical English text of the International Standard ISO 1161:2016 „Series 1 freight containers – Corner and intermediate fittings – Specifications“.

Proposal to adopt the International Standard by reprint method has been presented by EVS/TK 16, the Estonian standard has been published by the Estonian Centre for Standardisation.

Standard EVS-ISO 1161:2017 has been endorsed with a notification published in the February 2017 issue of the official bulletin of the Estonian Centre for Standardisation.

The standard is available from the Estonian Centre for Standardisation.

Käsitlusala

See rahvusvaheline standard määrab põhimõõtmed ning funktsionaalsus- ja tugevusnõuded 1. seeria veokonteinerite nurga- ja vahekinnititele, st konteinerid, mis vastavad standarditele ISO 668 ja ISO 1496 (kõik osad), erandina õhukonteinerid (vt ISO 8323).

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 55.180.10

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 104, *Freight containers*, Subcommittee SC 1, *General purpose containers*.

This fifth edition cancels and replaces the fourth edition (ISO 1161:1984), which has been technically revised with the following changes:

— added ISO 148-1 in Clause 2;

— added mechanical properties and reference to heat treatment in Clause 4;

— revised design load values for top, bottom and intermediate fittings in 5.1.1 to 5.1.3 in accordance with the maximum superimposed mass represented in ISO 1496-1;

— added 5.1.4;

— added interior walls, top and bottom plates as new compulsory features in 5.2;

— added new compulsory markings in Clause 7;

— added Clause 8;

— added interior wall thickness and bottom plate thickness, hitherto unspecified in Figure 1 a);

— added interior wall thickness and bottom plate thickness, hitherto unspecified in Figure 2 a);

— added interior wall thickness and top plate thickness, hitherto unspecified in Figure 3 a);

— added interior wall thickness and top plate thickness, hitherto unspecified in Figure 4 a);

— added wall thickness, hitherto unspecified in Figure 1 b);

— added wall thickness, hitherto unspecified in Figure 2 b);

— added wall thickness, hitherto unspecified in Figure 3 b);

— added wall thickness, hitherto unspecified in Figure 4 b);

— revised diagram for internal lashing in Figure 5;

— removed existing Annex A, “Examples of overall dimensions of box-shaped corner fittings”;

— added new Annex A, “Testing methodology”;

— removed Annex C “Guide on the choice of sizes for, and the positioning of, twistlock tie-down devices for securing series 1 freight containers to carrying vehicles” (intent to transfer to ISO 3874 as more appropriate home for this information).

It also incorporates the Amendment ISO 1161:1984/Amd 1:2007 and the Technical Corrigendum ISO 1161:1984/Cor 1:1990.

Introduction

This International Standard on corner fittings is the result of the efforts of technical and operational personnel drawn from all phases of the transportation industry. The figures show the fittings for the top and bottom corners of series 1 freight containers which will provide compatibility in interchange between transportation modes. Care has been taken to limit consideration only to those details vital to this function.

The size and configuration of corner and intermediate fitting apertures are specified. The faces of the corner and intermediate fittings having apertures for the engagement of handling and securing devices have specified thickness and tolerances as shown in Figures 1 to 4. The minimum thickness of the blank walls is specified even though they are not involved in the engagement of the handling and securing devices; they can be thicker than the minimum provided that their inner surfaces do not protrude into the corner fitting cavity reserved for the engaging device.

The purpose of this International Standard is to define some details of design vital to container interchange in automatic, semi-automatic and conventional systems.

The strength and testing requirements specified in this International Standard do not take any account of the stresses which can result from the practice of end-to-end coupling of containers.

NOTE The requirements of this International Standard do not preclude the Provision of additional facilities for lifting either from the top or at the base of the freight container.

Series 1 freight containers — Corner and intermediate fittings — Specifications

1 Scope

This International Standard establishes the basic dimensions and the functional and strength requirements of corner and intermediate fittings for series 1 freight containers, i.e. containers which conform to ISO 668 and ISO 1496 (all parts) with the exception of air mode containers (see ISO 8323).

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.

ISO 1496-1, *Series 1 freight containers — Specification and testing — Part 1: General cargo containers for general purposes*

ISO 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test method*

3 Dimensional requirements

3.1 General

3.1.1 The dimensions and tolerances of the corner and intermediate fittings shall conform to Figures 1 to 4.

Each series 1 container shall have two right-hand top corner fittings (on the right as the observer faces either end of the container) and two left-hand top corner fittings which are the mirror image of the right-hand fittings.

The bottom corner fittings shall have a similar configuration except in respect of the end aperture.

Apart from the above, 45 ft containers shall have four top intermediate fittings in the 40 ft position [see Figures 1 b) and 2 b)] and four bottom intermediate fittings in the 40 ft position [see Figures 3 b) and 4 b)].

The corner fittings shown in Figures 1 to 4 illustrate right-hand top and bottom fittings only; for the left-hand corner fittings, the dimensions are simply transposed.

3.2 Detailed dimensional and manufacturing requirements

3.2.2 Where the dimensions are not specified for inner and outer edges of apertures, these edges shall be given a radius of:

$$3^{\ 0}_{-1,5}\ \text{mm}\left(1 / 8^{\ 0}_{-1/16}\ \text{in}\right) \tag{1}$$

3.2.3 At the junction of the two 6 mm (1/4 in) outside edge radii with the 14,5 mm (9/16 in) edge radius, the corner should be rounded by blending the radiused edges, removing minimum amounts of material from the flat outer faces and walls.