SLOVENSKI STANDARD
SIST EN 12674-2:2002

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Kontejnerji s kolesi - 2. del: Sploġna konstrukcija in varnostna naļ ela

Roll containers - Part 2: General design and safety principles

Rollbehälter - Teil 2: Allgemeine konstruktive und sicherheitstechnische Grundlagen

Conteneurs a roulettes - Partie 2: Principes généraux de conception et de sécurité

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55.180.10 Veļ namenski kontejnerji General purpose containers

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English version

Roll containers - Part 2: General design and safety principles

Conteneurs à roulettes - Partie 2: Principes généraux de conception et de sécurité

Rollbehälter - Teil 2: Allgemeine konstruktive und sicherheitstechnische Grundlagen

This European Standard was approved by CEN on 25 October 2001.

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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 Management Centre has the same status as the official versions.

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

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Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 261 "Packaging", 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of an identical text or by endorsement, at the latest by June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

This standard will be part of a series of four standards for roll containers, no existing document is being replaced, other parts will be entitled as follows:

Part 1 - Terminology;

Part 3 - Test methods;

Part 4 - Performance requirements.

Annex A is informative.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Roll containers are equipment intended for moving goods. They comprise apparatus fitted with fixed and/or swivel castors. The superstructure comprises two or more frames which provide retention for items requiring transportation and/or distribution.

Roll containers are primarily designed for manual handling but may be designed to be moved by pallet trucks that comply with ISO 509 "Pallet trucks - Principal dimensions". However, if alternative base facilities are integrated such roll containers may still meet all the requirements of this standard. The special implications and hazards posed by elevation and manipulation of roll containers by means of fork lift trucks is specifically excluded from this standard, such design features are a matter for the manufacturer and user.

Dollies are included in EN 12674 since dollies can be manufactured for side frame fitment and need to be able to withstand additional loading stresses arising from this. The end use of demountable roll containers and such dollies are so close as to benefit from common test methods.

The measurement of maximum starting force and continuous rolling resistance on a standard reference surface and also roll container manoeuvrability tests are specified in Part 3 of this standard.

1 Scope

This European standard specifies general design and safety principles for the four main *styles* of roll container - Demountable, Folding, Nesting and Rigid and the seven *derived forms* as defined in EN 12674-1, “Roll containers – Terminology”.

All styles of roll container defined in EN 12674-1 irrespective of the materials from which they are made should conform to the normative parts of this standard.

It is also applicable to dollies, as defined in EN 12674-1, whether or not intended for side frame or post fitment.

It is not applicable to the specialised use of fork lift and reach trucks with purpose-built roll containers.

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).

EN 12674-1, *Roll containers – Part 1: Terminology.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12674-1 apply.

4 Essential dimensional features of roll containers

4.1 Designation of plan dimensions: Length / width / direction of motion

For the purpose of designation of roll containers, *length* is the *longest* side and *width* is the *shortest* side. The dimension *always expressed first* is that dimension (length or width) that is parallel to the direction of motion (designated *l* or *w*). The second dimension is that dimension at 90° to the direction of motion (designated *l* or *w*).

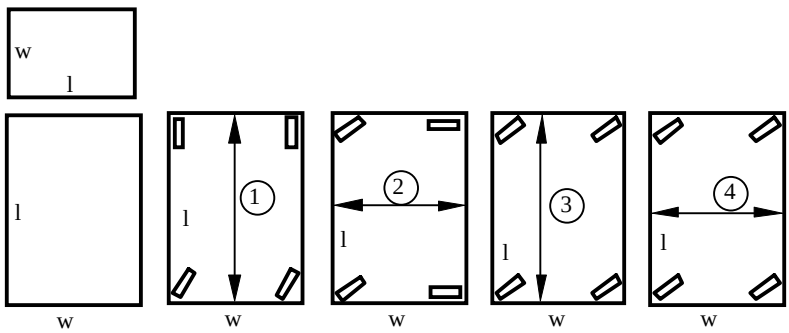

Figure 1 — Plan dimensions – designation of length / width / direction of motion

For a roll container with four swivel castors then the primary direction of motion as intended by the maker takes precedence, as shown in Figure 1.

NOTE Four swivel castors create a much greater problem to control a roll container than two swivel and two fixed castors.

1) Direction of motion - length direction (designated *l* x *w*)

2) Direction of motion - width direction (designated *w* x *l*)

3) Maker designated direction of primary motion - length direction (designated *l* x *w*)

4) Maker designated direction of primary motion - width direction (designated *w* x *l*)

4.2 External plan dimensions

External plan dimensions are measured on the most protruding external parts of the structure ignoring wheel projection, as shown in Figure 2.

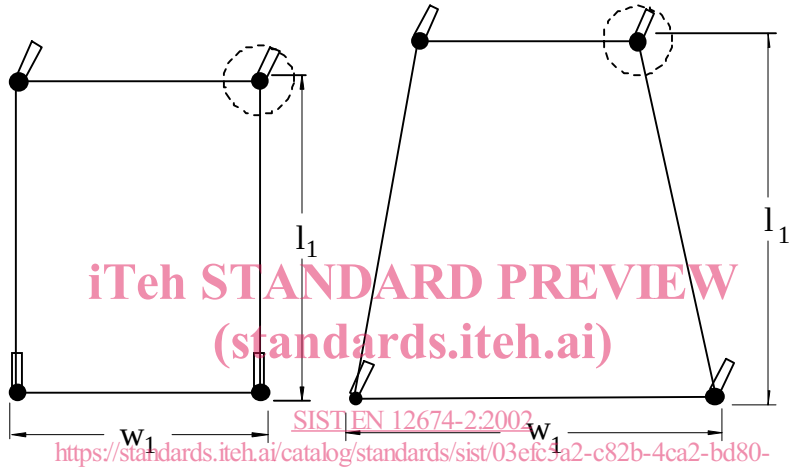

Figure 2 — External plan dimensions

W_1 *and* l_1 are maximum dimensions over fixed structural posts.

NOTE *Operating external plan dimensions* may include clearance for moving parts including castors, hinged lids and doors which require space to operate.

4.3 Internal plan dimensions

Internal length and width are the plan dimensions which accommodate the (packaged or bulk) goods avoiding low level frame fittings, as shown in Figure 3.

W_2 and l_2 are minimum dimensions between structural parts based on measurements at front or back;

W_3 and l_3 are minimum dimensions between mesh or other panels;

W_4 and l_4 are minimum dimensions between locking or holding projections, e.g. shelf fixings.

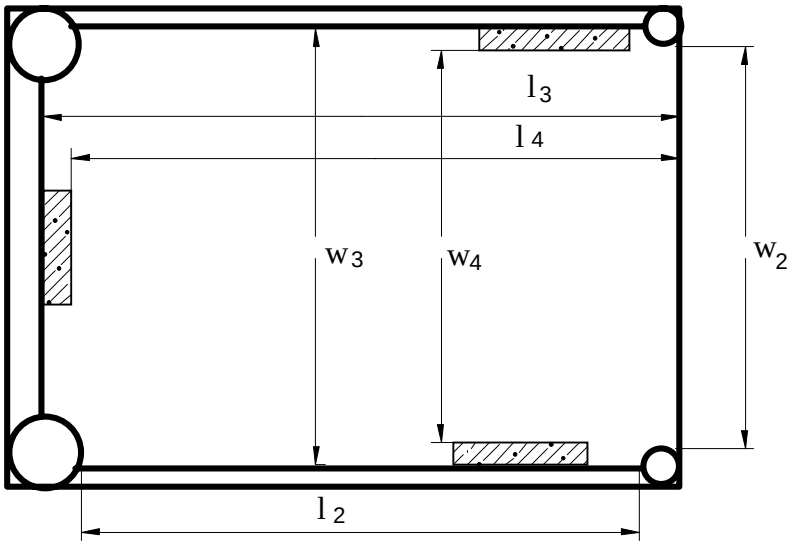

Figure 3 — Internal plan dimensions denoting useful load area

NOTE 1 W_4 may be in any position and is relevant for large single items of cuboid shape and this dimension, or there may be several, is for negotiation between manufacturer and individual user.

NOTE 2 Should no side frame, back frame or gate be present, the measurements should be taken from the edge of the floor.

4.4 External height / contained height / folded height / operational height

External height: (shown in Figure 4)

(h_1) shall be the distance between the ground and the highest part of the roll container when assembled and ready for use

(h_2) shall be the distance between the ground and the highest part of the roll container when assembled and ready for use with lid fitted

(h_3) shall be the distance from the bottom of roll container and its highest part (ignoring castors)

External height folded: (shown in Figure 4)

(h_4) shall be the height when folded for transit or storage where applicable. For folding or nesting styles, when specifying, *both* heights shall be given, in the order: ready for use (h_1), folded (h_4).