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Packaging — Complete, filled transport packages and unit loads — Unit load dimensions

Emballages — Emballages d'expédition complets et pleins et charges unitaires — Dimensions d'unité de charge

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 3676 was prepared by Technical Committee ISO/TC 122, *Packaging*.

This second edition cancels and replaces the first edition (ISO 3676:1983), which has been technically revised.

Introduction

A single overall system based on a common module is unlikely to cover all packaged goods in the world, because of substantial differences in the sizes, shapes, and densities of the products, great variety in handling devices, regional government legislation, etc.

However, the application of such a system is a long-term policy goal, assuming that this does not lead to the exclusion of commodity dimensions and goods which are compatible with the modular system.

A standardized unit-load dimension is intended to prevent inadvertent over-sizing, and thus jamming against internal walls, or under-sizing, and thus wasting cargo vehicle space and/or rendering the load susceptible to transit damage.

Determining acceptable deviations in dimensions of unit loads is a complex matter, since the dimensions of the transport package, and thus the load itself, tend to change during filling, handling, warehousing, and transport. See Figure 1.

One factor affecting the measurement of the unit load is load bulge (filling, compression, and settling bulge). Factors influencing the load bulge are transport package materials, nature of contents, length of time in storage, moisture and temperature conditions, and transit conditions.

Another cause of unit load enlargement is stacking irregularity (unitizing inefficiency, out-of-line stacking, and out-of-square stacking) which occurs frequently and particularly in manual formation of the transport package layers in a unit load.

Such factors, which tend to change the plan dimensions of the unit load, cannot always be avoided but they are to be controlled by providing a dimensional deviation for the standardized unit loads.

When choosing transport package materials and when adding subsequent layers of transport packages to complete the unit load, it is to be ensured that the resulting overall length and width dimensions do not exceed the referenced plan dimensions of the unit load, at any stage of the distribution chain.

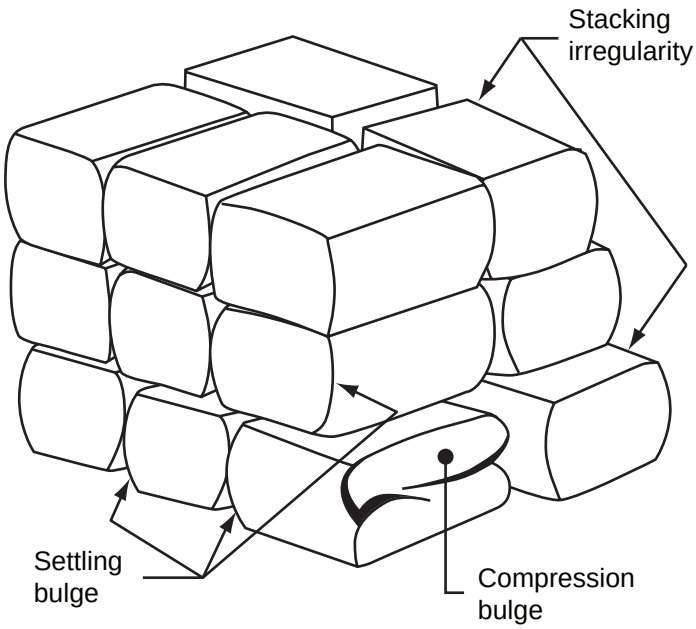

Figure 1 — Dimensional deviations for unit loads