

BS ISO 21100:2014



BSI Standards Publication

# Air cargo unit load devices — Performance requirements and test parameters

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**National foreword**

This British Standard is the UK implementation of ISO 21100:2014. It supersedes DD ISO/PAS 21100:2011 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/57, Air cargo and ground support equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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**Air cargo unit load devices —  
Performance requirements and test  
parameters**

*Unités de charge de fret aérien — Exigences de performances et  
paramètres d'essai*



Reference number  
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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. [www.iso.org/directives](http://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. [www.iso.org/patents](http://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 WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

# Air cargo unit load devices — Performance requirements and test parameters

## 1 Scope

**1.1** The purpose of this International Standard is to establish the minimum requirements for airworthiness approval of air cargo pallets, nets and containers, generally designated as air cargo unit load devices.

**NOTE** In all countries, standing Government regulations apply to air cargo unit load devices airworthiness approval. This International Standard is intended to provide a uniform technical reference for air cargo unit load devices approval, but does not, under any circumstance, supersede the requirements of applicable regulations or the aircraft manufacturer's Authority approved Weight and Balance Manual.

**1.2** This International Standard defines the minimum performance requirements and test parameters for air cargo unit load devices requiring approval of airworthiness for installation in an approved aircraft cargo compartment and restraint system that complies with the cargo restraint and occupant protection requirements of EASA CS-25 or 14 CFR Part 25, except for the 9,0 g forward ultimate inertia force of § 25.561(b) (3) (ii).

**1.3** This International Standard applies to airworthiness approved air cargo unit load devices intended for carriage on board civil transport category airplanes type certificated under EASA CS-25, "*Certification Specifications for Large Aeroplanes*" or 14 CFR Part 25, "*Airworthiness Standards - Transport Category Airplanes*", or equivalent regulations.

**1.4** It exclusively applies to unit load devices airworthiness approval and testing parameters. It does not apply to either aircraft design or aircraft operating requirements, which are provided by the approved Weight and Balance Manual for each aircraft type.

**1.5** Other aspects that do not directly pertain to air cargo unit load devices airworthiness approval and testing, e.g.:

- ULD design specifications,
- ULD in service damage limits,
- ULD restraint malfunction limitations,
- ULD test methods,
- ULD load distribution models,
- ULD maximum allowable contours,
- ULD C.G. location control means,
- ULD pressure equalization methods,
- ULD utilization guidelines,

are defined in other International Standards (see [2.2](#), Normative References and Bibliography).

**1.6** Air cargo unit load devices qualified prior to publication of this specification were TSO (Technical Standard Order) approved in accordance with the requirements of International Standard ISO 8097:2001.