
**Box pallets — Principal requirements and
test methods**

Palettes boîtes — Exigences principales et méthodes d'essais

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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.

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.

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.

ISO 13194 was prepared by Technical Committee ISO/TC 51, *Pallets for unit load method of materials handling*.

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Introduction

This International Standard provides definitions and specifies principal requirements and test methods for box pallets, excluding tank and silo pallets as defined in ISO 445. It is performance-based, i.e. no minimum values are fixed. It reflects ISO 8611-1 in this respect. Box pallets are tested in accordance with the claimed performances.

This International Standard evaluates performances in relation to the load capacity of a box pallet carrying a uniformly distributed load used as test load and called the nominal load. However, it is recognized that the maximum working load for a box pallet could vary with the type of load carried and that, for a specific type of load, the maximum working load can be smaller or larger than the nominal load of a box pallet. Therefore, the allowable maximum load for a given design of box pallet varies according to the characteristics of the type of load carried.

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Box pallets — Principal requirements and test methods

1 Scope

This International Standard specifies the definitions, principal requirements and test methods for box pallets of all materials. It applies to box pallets, including post pallets and cage pallets, but is not intended to apply to tank and silo pallets as defined in ISO 445. It also applies to box pallets which can be stacked and handled by forklift trucks or pallet trucks, but excludes other lifting devices.

This International Standard addresses the performance of the box pallet only, and not its contents.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 445, *Pallets for materials handling — Vocabulary*

ISO 6780, *Flat pallets for intercontinental material handling — Principal dimensions and tolerances*

ISO 8611-2:2011, *Pallets for materials handling — Flat pallets — Part 2: Performance requirements and selection of tests*

ISO 2206, *Packaging — Complete, filled transport packages — Identification of parts when testing*

ISO 2234, *Packaging — Complete, filled transport packages and unit loads — Stacking tests using a static load*

ISO 2244, *Packaging — Complete, filled transport packages and unit loads — Horizontal impact tests*

ISO 2247, *Packaging — Complete, filled transport packages and unit loads — Vibration tests at fixed low frequency*

ISO 2248, *Packaging — Complete, filled transport packages — Vertical impact test by dropping*

EN 13382, *Flat pallets for materials handling — Principal dimensions*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

pallet with superstructure

pallet with a fixed superstructure or a rigid, self-supporting container that can be mechanically attached to the pallet and which contributes to the strength of the pallet

3.2
box pallet
bulk container pallet
pallet with solid or close boarded sides, one or more of which can have hinged or removable gates for access as defined in ISO 445, whether fixed, collapsible or demountable

NOTE 1 See Figure 1.

NOTE 2 A box pallet can be fitted with a lid.

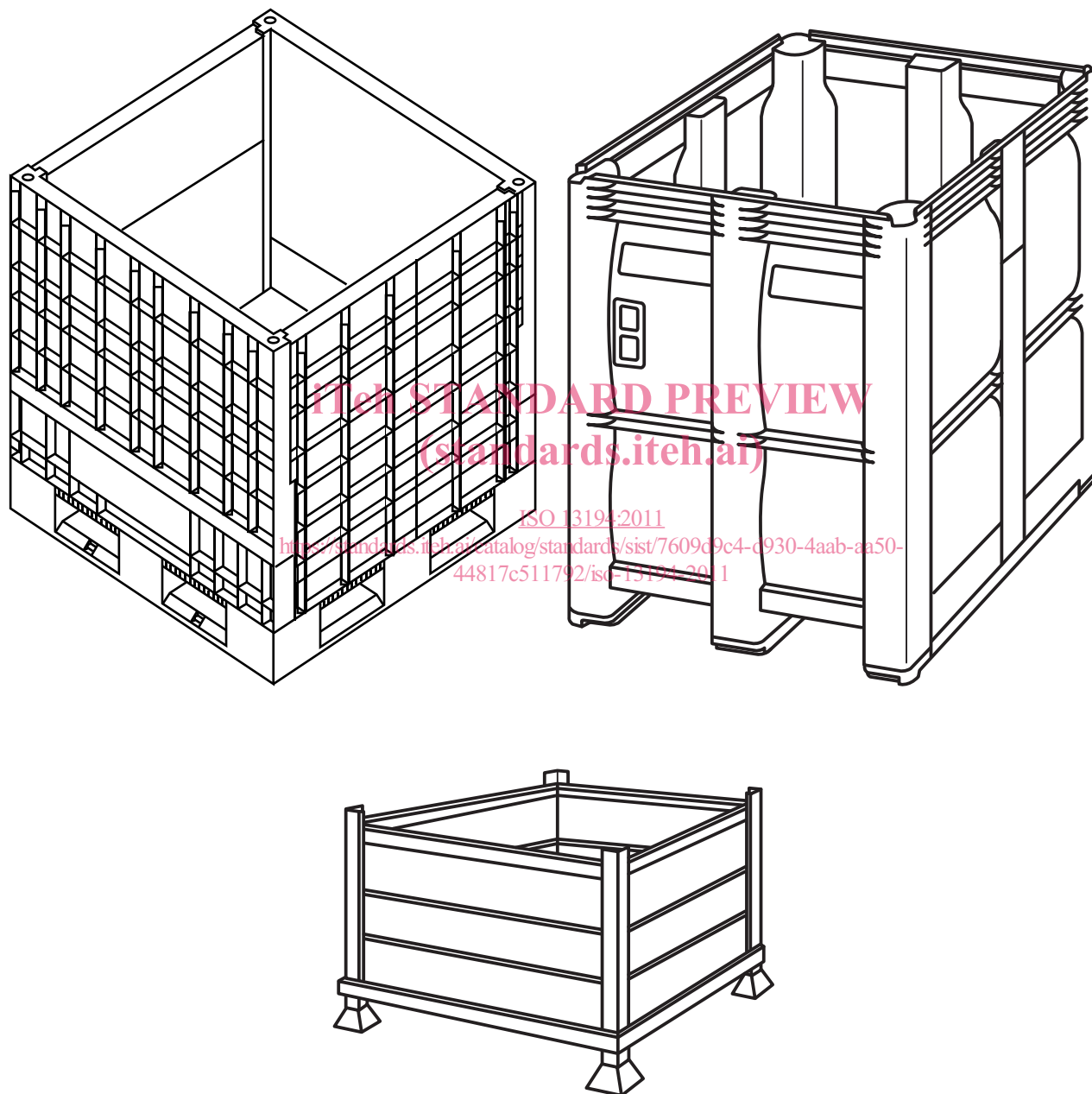
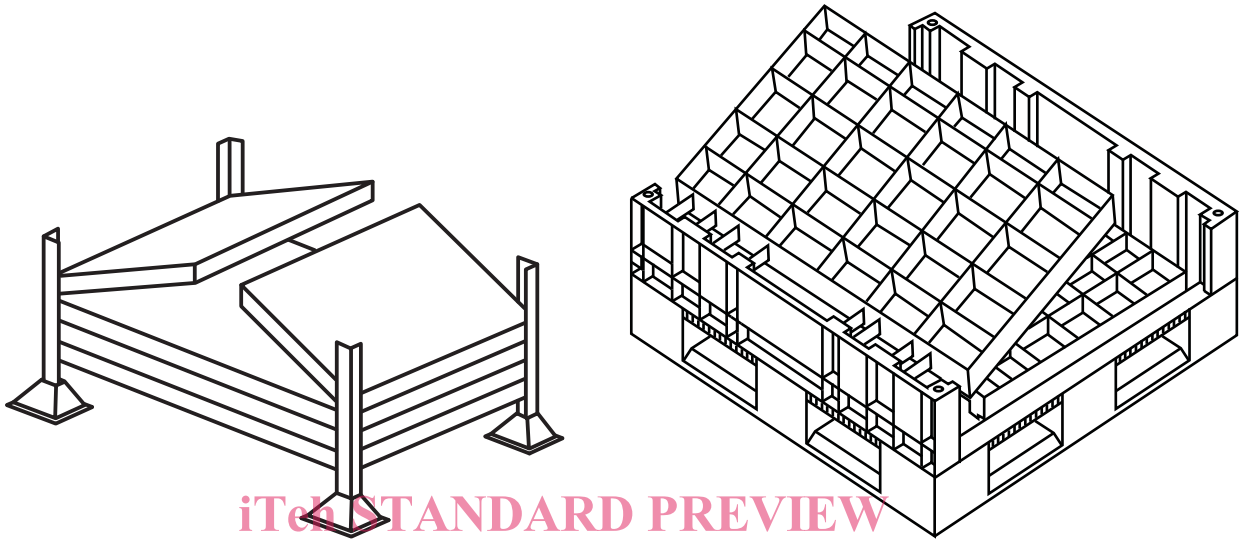


Figure 1 — Examples of box pallets

3.3
fixed box pallet
box pallet with sides permanently and rigidly fixed to the deck

3.4
collapsible box pallet
 box pallet with sides hinged to the deck

NOTE See Figure 2.



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Figure 2 — Examples of collapsible box pallets

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3.5
demountable box pallet
 box pallet with removable sides

NOTE See Figure 3.

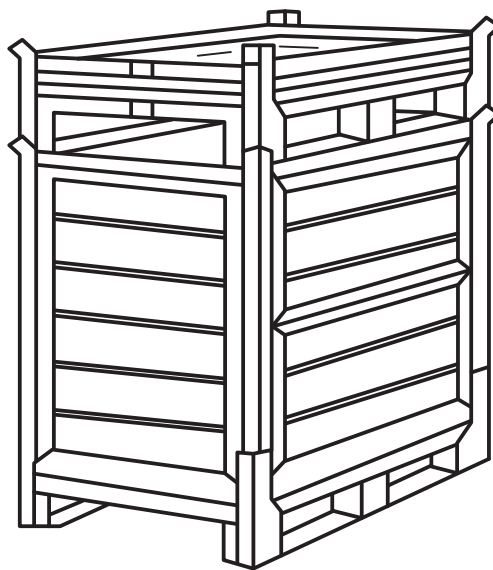
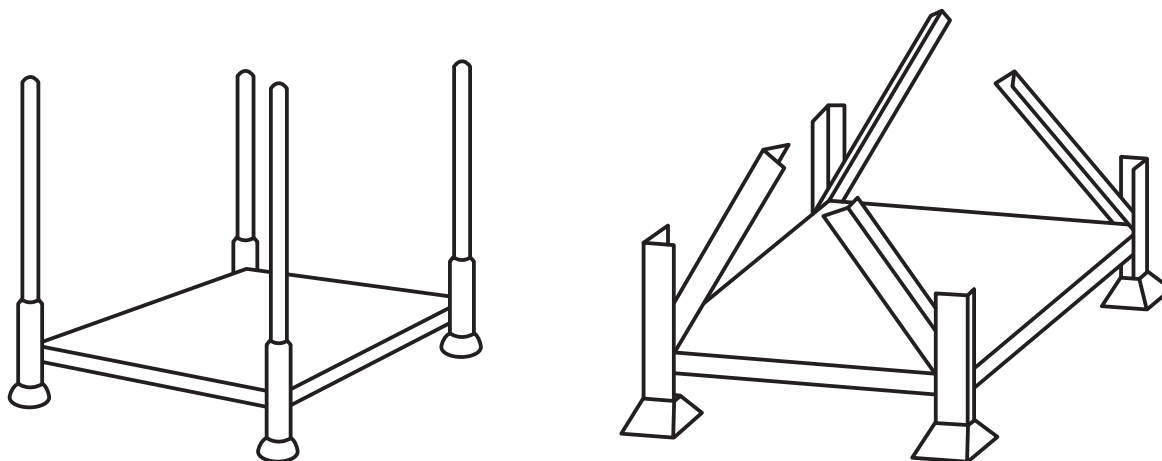


Figure 3 — Example of demountable box pallet

**3.6
post pallet**

pallet having posts to permit stacking, and fitted with either removable rails or gates

NOTE See Figure 4.



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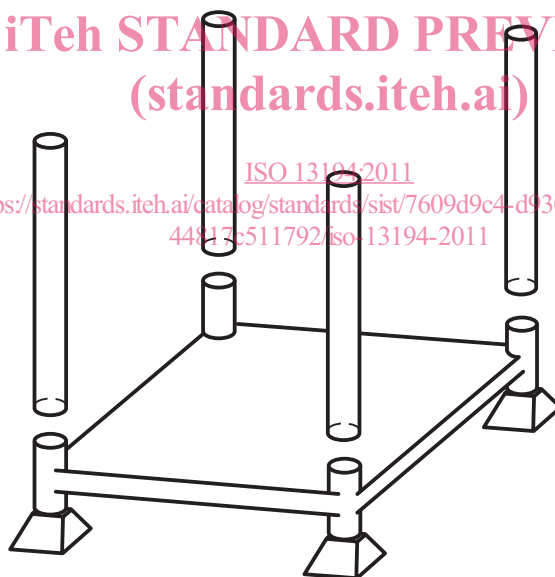
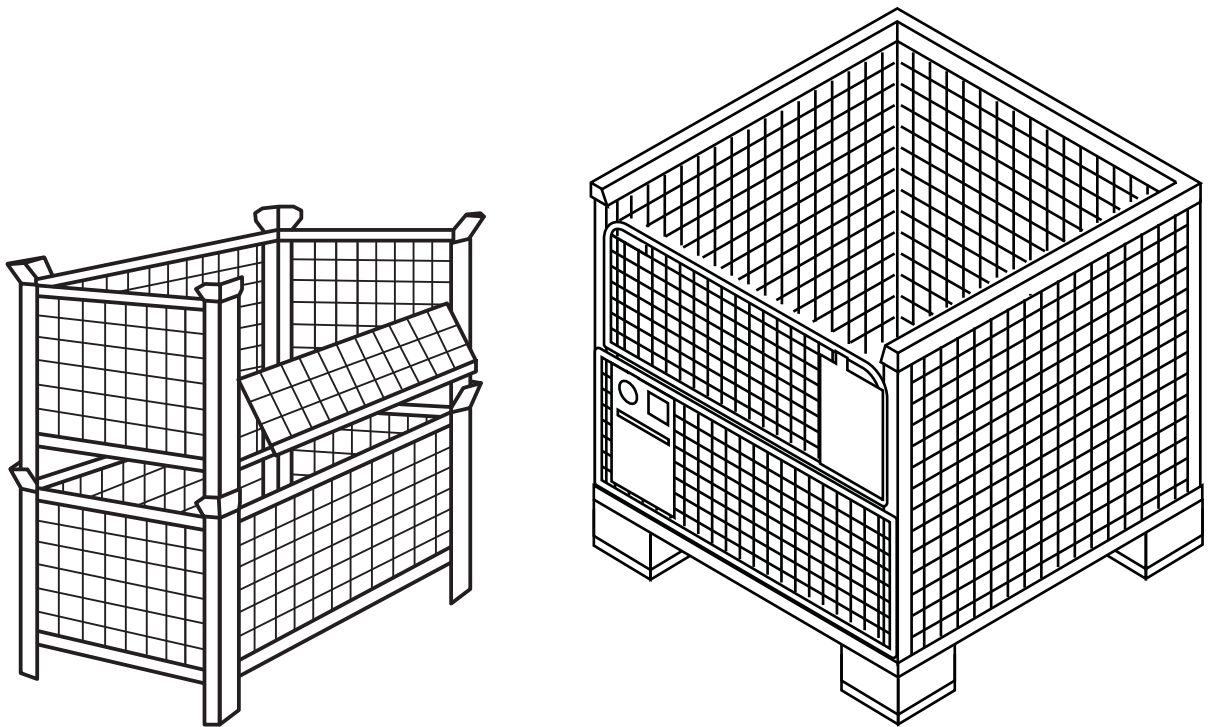


Figure 4 — Examples of post pallets

**3.7
cage pallet**

pallet with mesh, rodded or barred sides, one or more of which can have a hinged or removable gate for access

NOTE See Figure 5.



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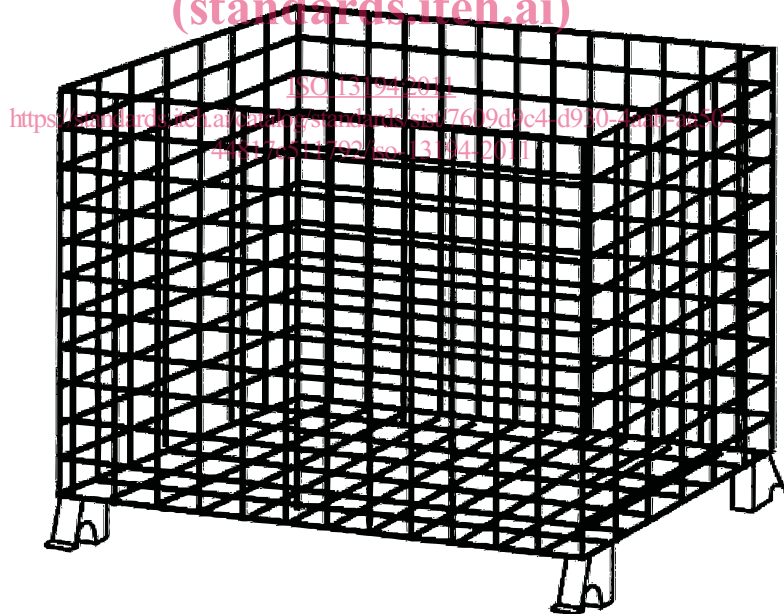


Figure 5 — Examples of cage pallets

3.8

nominal load

lowest safe load which may be permitted to carry in the box pallet, assuming a uniformly distributed load and expressed in kilograms