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**Aircraft — Main-deck passenger doors —  
Interface requirements for connection  
with passenger-boarding bridge or  
transfer vehicle**

*Aéronefs — Portes passagers du pont principal — Exigences  
d'interface pour accouplement d'une passerelle passagers ou d'un  
autobus élévateur*

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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 7718 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This second edition cancels and replaces the first edition (ISO 7718:1984), which has been technically revised.

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## Introduction

This International Standard specifies minimum requirements for dimensions and unobstructed space around main-deck passenger doors on the outer skin of civil transport aircraft, applicable when these doors are designed to accept the connection of existing passenger-boarding bridges or transfer vehicles.

Throughout this International Standard, the minimum essential criteria are identified by the keyword “shall”. Recommended criteria are identified by the keyword “should” and, while not mandatory, are considered to be of primary importance in providing easily and economically handled aircraft, as well as preventing damage to the aircraft caused by the passenger-boarding bridge or transfer vehicle. Deviation from recommended criteria should only occur, after careful consideration, if positively required by basic aircraft-design factors with a significant operational-cost impact.

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# Aircraft — Main-deck passenger doors — Interface requirements for connection with passenger-boarding bridge or transfer vehicle

## 1 Scope

This International Standard specifies minimum requirements for dimensions and unobstructed space around main-deck passenger doors of future types of civil-passenger transport aircraft when they are intended to be compatible with the thousands of passenger-boarding bridges and passenger transfer vehicles existing, or being planned, in airports worldwide.

This International Standard is not applicable to existing models of civil transport aircraft, or derivative models with the same fuselage, for which the aircraft mating section of passenger-boarding bridges or passenger transfer vehicles should be made compatible according to ISO 16004.

It is not the intent of this International Standard to restrict in any way the basic design of any future types of civil-passenger transport aircraft. However, it aims at clarifying, for aircraft-design engineers, the design characteristics which would make it difficult or impossible for a new type of aircraft to adequately connect with existing airport passenger-boarding bridges or passenger transfer vehicles. If basic aircraft-design requirements impose, on a future model, certain dimensional characteristics not complying with this International Standard, it should be noted that:

- either alternative methods of embarking/disembarking passengers will have to be implemented, such as integral aircraft stairs, etc.;
- or existing passenger-boarding bridges and/or passenger transfer vehicles in the airports where such a new type of aircraft is to operate will require some degree of modification/reworking;
- or additional interface devices/equipment will be required in order to connect such a new type of aircraft with existing passenger-boarding bridges and passenger transfer vehicles;

in each case resulting in increased aircraft-handling constraints and operating cost.

## 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 16004, *Ground equipment — Passenger-boarding bridge or transfer vehicle — Interface requirements with aircraft doors*

## 3 Requirements

### 3.1 Minimum unobstructed space

**3.1.1** Unobstructed space shall be provided for the connection of the passenger-boarding bridge or passenger transfer vehicle, as shown by the hatched area in Figure 1. The area surrounded by the dotted line represents the opening of the bridge or vehicle.

**3.1.2** This area shall be kept completely clear of any external features such as aerials, drains, Pitot heads, static ports, sensors, incidence probes, aerodynamic strakes, access panels, etc.

**3.1.3** Integral aircraft stairs, which do not interfere with the connection of a passenger-boarding bridge or passenger transfer vehicle, or with the aircraft when in the retracted position, are permitted in this area.

**3.1.4** Protrusions intended to divert rainwater away from the door opening are permitted in this area, provided they are not deemed part of the aircraft's structural or aerodynamic integrity.

Existing models of civil transport aircraft present a variety of flight-safety-sensitive items in the unobstructed area defined above. They shall be protected against inadvertent interference by provisions built into the aircraft mating section of passenger-boarding bridges or passenger transfer vehicles in accordance with ISO 16004. The no-interference areas accordingly specified on ground equipment are included in the unobstructed area defined above for future aircraft.

### **3.2 Minimum radius of the fuselage**

The cross-sectional radius of the fuselage in any part of the area defined in Figure 1 should not be less than 1,6 m (63 in).

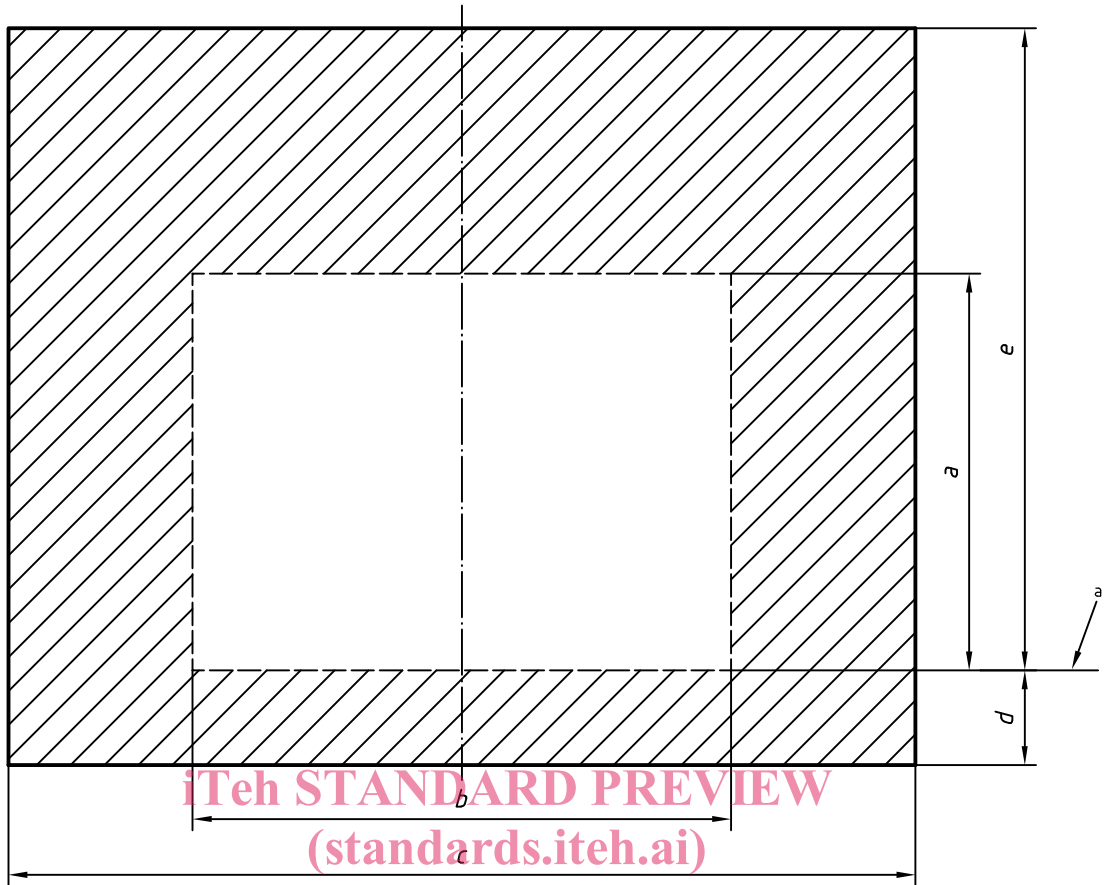
### **3.3 Door-sill height**

The passenger door-sill height above the ground, at any part of its excursion range during normal airport servicing/transit operations, should be between 1,6 m (63 in) and 5,4 m (213 in).

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a Door-sill height <https://standards.iteh.ai/catalog/standards/sist/c9d92576-9251-45b3-a67d-eea6f9dc0619/iso-7718-2003> ISO 7718:2003  
 Dimensions in millimetres (inches)

Dimension	Maximum value	Minimum value	Note
<i>a</i>	2 100 (82,7)	—	Dimension of the bridge opening
<i>b</i>	2 850 (112,2)	—	
<i>c</i>	—	4 800 (189,0)	
<i>d</i>	—	500 (19,7)	
<i>e</i>	—	3 400 (133,8)	

Figure 1 — Unobstructed space to be provided in the vicinity of passenger doors

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