
**Lifts for the transport of persons and
goods —**

**Part 30:
Class I, II, III and VI lifts installation**

*Ascenseurs pour le transport des personnes et des charges —
Partie 30: Installation d'ascenseurs des classes I, II, III et VI*

ITeH STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/1a293-06da/40eb-8fa7-3aa594e9cc1/iso-8100-30-2019>



iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/ac1a9293-06d0-40eb-8fa7-3aa594e9cc1/iso-8100-30-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 General.....	1
3.2 Terms related to lift classes.....	2
3.3 Terms related to dimensions.....	2
3.4 Terms related to other characteristics.....	6
4 Lift characteristics	6
4.1 Renard series.....	6
4.2 Rated loads.....	7
4.3 Rated speeds.....	7
4.4 Selection of class of lift.....	7
5 Dimensions	7
5.1 Inner dimensions of cars.....	7
5.1.1 Accessibility.....	7
5.1.2 Class I lifts.....	7
5.1.3 Class II lifts.....	8
5.1.4 Class III lifts.....	8
5.1.5 Class VI lifts.....	8
5.2 Inner dimensions of well.....	8
5.2.1 Plan dimensions.....	8
5.2.2 Individual lifts.....	12
5.2.3 Multiple lifts situated side by side.....	12
5.2.4 Distance between landings.....	12
5.2.5 Class III lifts.....	12
5.3 Dimensions of landings.....	12
5.3.1 General.....	12
5.3.2 Class I lifts particularly intended for residential buildings.....	13
5.3.3 Class I (other than those particularly intended for residential buildings), II, III and VI lifts.....	13
5.4 Dimensions of machine room for electric lifts.....	13
5.4.1 General.....	13
5.4.2 Individual lifts.....	13
5.4.3 Multiple lifts.....	13
5.5 Dimensions of machine room for hydraulic lifts.....	15
5.5.1 General.....	15
5.5.2 Individual lifts.....	15
5.5.3 Duplex group lifts.....	15
5.6 Arrangement of machine room (where applicable).....	15
5.6.1 Individual or common arrangement.....	15
5.6.2 Arrangement for individual lifts and multiple lifts side by side with common machine room.....	17
5.6.3 Arrangement for lifts face to face with a common machine room (for electric lifts only).....	18
Bibliography	30

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 (see 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 (see 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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 178, *Lifts, escalators and moving walks*.

This first edition of ISO 8100-30 cancels and replaces ISO 4190-1:2010, which has been technically revised. It also incorporates the Amendment ISO 4190-1:2010/Amd.1:2011. The main changes compared to the previous document are as follows:

- a reference to machine room-less lifts has been added and additional dimensions have been included to cope with common machine room-less lift configurations;
- [Figure 7](#) has been changed to include sizes and dimensions of general-purpose lifts with counterweight to side;
- some new and revised car sizes have been included to provide for access by persons including persons with disability.

A list of all parts in the ISO 8100 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

NOTE 1 In certain instances, harmonization is not possible and these sizes are shown in [Figures 10](#) to [13](#).

NOTE 2 National regulations can require greater dimensions in some instances.

Introduction

This document reflects the requirements of the global marketplace and includes:

- the special needs, access and full manoeuvrability of persons including persons with physical disabilities;
- appropriate use of stretchers, beds and ancillary medical equipment in hospitals and nursing homes;
- a range of intensive-use lifts¹⁾ typically used for high-rise buildings for rated speeds of 2,5 m/s to 6,0 m/s;
- rated speeds mainly based on the Renard series for speeds of up to 2,5 m/s;
- improved utilization of building space by reducing well (hoistway) sizes where practicable.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/ac1a9293-06d0-40eb-8fa7-3aa594e9cc1/iso-8100-30-2019>

1) Hereinafter, the term “lift” is used instead of the term “elevator”.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Full standard:
<https://standards.iteh.ai/catalog/standards/sist/ac1a9293-06d0-40eb-8fa7-3aa594e9cc1/iso-8100-30-2019>

Lifts for the transport of persons and goods —

Part 30: Class I, II, III and VI lifts installation

1 Scope

This document specifies the necessary dimensions to permit the installation of passenger lifts of class I, II, III and VI.

These dimensions reflect the requirements for the apparatus.

This document is applicable to all new lift installations, irrespective of drive systems, including a car with one entrance, to be installed in a new building. However, for arrangements with counterweight at the side, a through-entrance configuration is possible. Where relevant, this document is also applicable to an installation in an existing building.

This document is not applicable to lifts of rated speed greater than 6,0 m/s.

NOTE It is the responsibility of the user to consult the manufacturer for such installations.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 General

3.1.1

car

part of the *lift* (3.1.6) which carries the passenger and/or other loads

3.1.2

headroom

part of the *well* (3.1.8) situated above the highest landing served by the *car* (3.1.1)

3.1.3

landing

area providing access to the *car* (3.1.1) at each level of use

3.1.4

machine room

room in which the machine or machines and/or the associated equipment are placed

3.1.5

machine room-less lift

lift (3.1.6) whose machinery spaces, e.g. control cabinet(s) and drive system, lift machine, main switch(es), and means for emergency operations, are inside the *well* (3.1.8) or on the *landing(s)* (3.1.3)

3.1.6

lift, GB

elevator, US

permanent lifting appliance serving defined *landing* (3.1.3) levels, comprising a *car* (3.1.1), the dimensions and means of construction of which, clearly permit the access of persons

3.1.7

pit

part of the *well* (3.1.8) situated below the lowest *landing* (3.1.3) served by the *car* (3.1.1)

3.1.8

well, GB

hoistway, US

space in which the *car* (3.1.1), the counterweight or the balancing weight travels

Note 1 to entry: This space is usually bounded by the bottom of the *pit* (3.1.7), the walls and the ceiling of the well.

3.2 Terms related to lift classes

3.2.1

class I

lift (3.1.6) designed for the transport of persons

3.2.2

class II

lift (3.1.6) designed mainly for the transport of persons, but in which goods can be carried

Note 1 to entry: This differs from a class I, III and VI lift, essentially, by the inner fittings of the *car* (3.1.1) and by the strength of the car floor, etc.

3.2.3

class III

lift (3.1.6) designed for health-care purposes, e.g. hospitals and nursing homes

3.2.4

class VI

lift (3.1.6) especially designed to suit buildings with intensive traffic, i.e. lifts with speeds of 2,5 m/s and above

3.3 Terms related to dimensions

3.3.1

car width

b_1
horizontal distance between the inner surface of the *car* (3.1.1) walls measured parallel to the front entrance side

Note 1 to entry: This dimension is measured as indicated in [Figure 1](#), 1 m above the floor. In certain regions, e.g. Asia-Pacific and North American regions, the car width, b_1 , is measured between the finished panels, whereas in Europe, the car width is measured excluding decorative or protective panels.

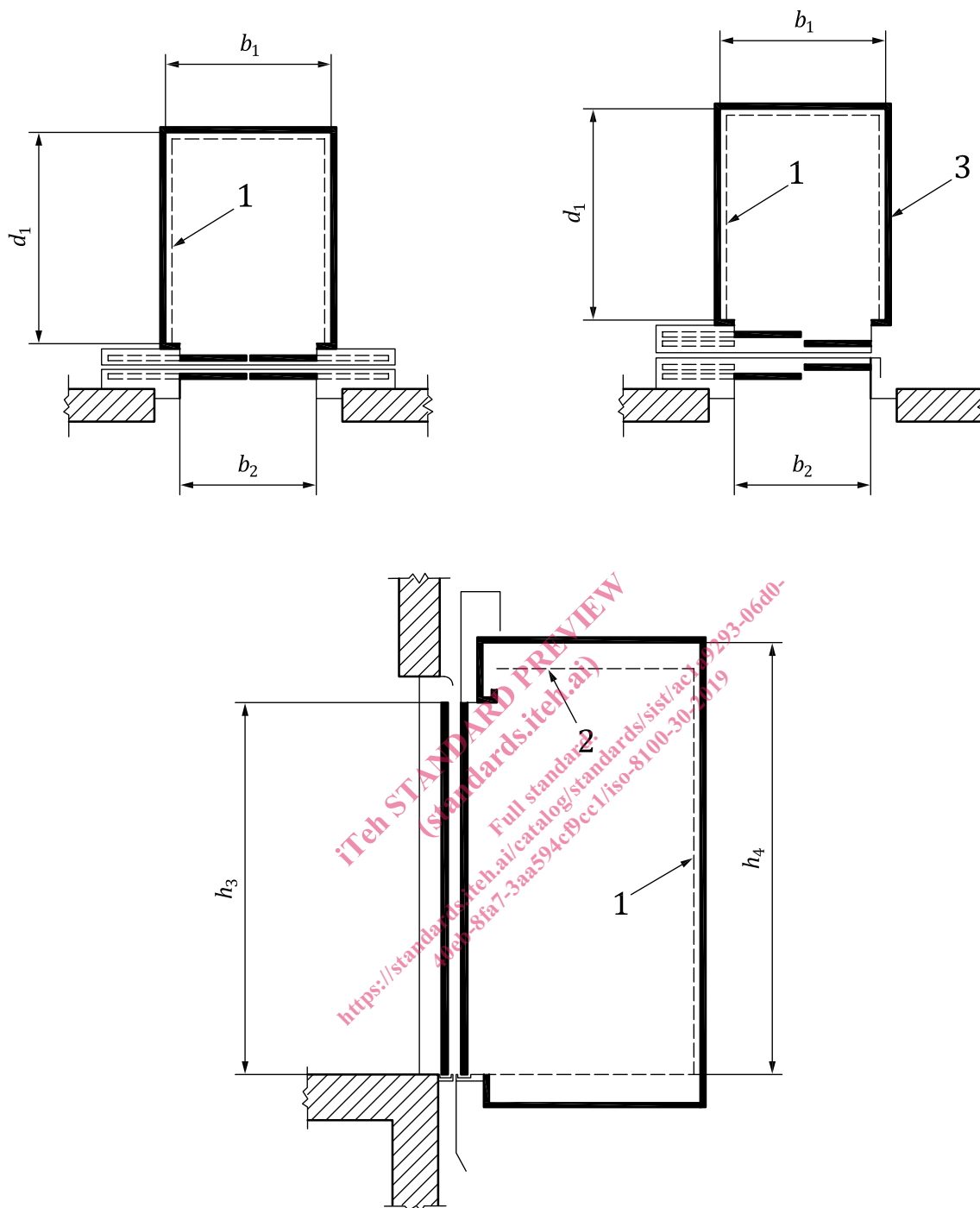
3.3.2**car depth** d_1

horizontal distance between the internal walls of the *car* (3.1.1), measured perpendicular to the front entrance side

Note 1 to entry: This dimension is measured as indicated in [Figure 1](#), 1 m above the floor. In certain regions, e.g. Asia-Pacific and North American regions, the car depth, d_1 , is measured between the finished panels, whereas in Europe, the car depth is measured excluding decorative or protective panels.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Full standard:
<https://standards.iteh.ai/catalog/standards/sist/ac1a9293-06d0-40eb-8fa7-3aa594e9cc1/iso-8100-30-2019>



Key

- 1 decorative panels
- 2 false ceiling
- 3 car wall
- b_1 car width
- b_2 entrance width
- d_1 car depth
- h_3 entrance height
- h_4 car height

Figure 1 — Car and entrance dimensions

3.3.3 car height

h_4

vertical inner distance between the entrance threshold and the constructional roof of the *car* (3.1.1)

Note 1 to entry: Light fittings and false ceilings should be accommodated within this dimension (see Figure 1).

Note 2 to entry: In certain regions, e.g. Asia-Pacific and North American regions, the car height, h_4 , is measured between the floor and the underside of the false ceiling, whereas in Europe, the car height is measured to the underside of the structural roof.

3.3.4 entrance width

b_2

<into car> nominal clear width of the entrance, measured when the *landing* (3.1.3) and *car* (3.1.1) doors are fully open

Note 1 to entry: See Figure 1.

3.3.5 entrance height

h_3

clear height of the entrance, measured when the *landing* (3.1.3) doors and *car* (3.1.1) doors are fully open

Note 1 to entry: See Figure 1.

3.3.6 well width, GB hoistway width, US

b_3

horizontal distance between the inner surface of the *well* (3.1.8) walls, measured parallel to the *car width* (3.3.1)

Note 1 to entry: See Figures 2, 3 and 4.

3.3.7 well depth, GB hoistway depth, US

d_2

horizontal dimension between the inner surface of the *well* (3.1.8) walls, perpendicular to the width

Note 1 to entry: See Figures 2, 3 and 4.

3.3.8 pit depth

d_3

vertical distance between the finished floor of the lowest *landing* (3.1.3) served and the bottom of the *well* (3.1.8)

Note 1 to entry: See Figures 2, 3 and 4.

3.3.9 headroom height

h_1

vertical distance between the finished floor of the highest *landing* (3.1.3) served and the structural ceiling of the *well* (3.1.8)

Note 1 to entry: See Figures 2, 3 and 4.