# International Standard



1803/2

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION●МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ⊕ORGANISATION INTERNATIONALE DE NORMALISATION

# rart 2: Derived terms Construction immobilière – Tolérances – Vocabulaire – Partie 2: Termes dérives l' First edition – 1986-09-01 STANDARDES O.COM. Citche de l'Action de

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Descriptors: buildings, dimensional tolerances, vocabulary.

Ref. No. ISO 1803/2-1986 (E)

### **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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 1803/2 was prepared by Technical Committee ISO/TC 59, Building construction.

ISO 1803 was first published in 1973. This edition consists of ISO 1803/1 and ISO 1803/2, which together cancel and replace the 1973 edition, of which they are a technical revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

# Building construction — Tolerances — Vocabulary — Part 2: Derived terms

### 0 Introduction

The terms and definitions given in this International Standard reflect continuing developments in the understanding of the problems posed by unavoidable variations in the dimensional characteristics of components and structures.

The terms and definitions given in this part of ISO 1803 constitute a vocabulary relating to different types of tolerances and deviations. All the terms are derived from those in ISO 1803/1.

The annex, which gives examples of the use of the terms, does not form an integral part of the standard.

## 1 Scope and field of application

This part of ISO 1803 defines derived terms needed for the study, specification and use of dimensional tolerances for building.

# 2 Reference physical conditions

In principle a statement of reference conditions should be associated with every quantified dimensional attribute.

### 3 Vocabulary

### 3.1 General

In the following definitions, dimensions may be linear or angular. Tolerances are applied only to sizes. Sizes may quantify dimensions such as length, breadth, width, height, depth, diameter or may also quantify a dimension that delineates form, such as straightness, flatness or skewness, position or orientation (angularity).

Inherent deviations are not dealt with in this part of ISO 1803.

### 3.2 Terms and definitions (see also the annex)

- **3.2.1** manufacturing tolerance: Permitted variation in the size of a dimension of a component<sup>1)</sup>, resulting from manufacture.
- **3.2.2 setting-out tolerance**: Permitted variation in the size of a dimension connecting set-out points or lines with each other or with corresponding reference points or lines.
- **3.2.3 erection tolerance**: Permitted variation in the size of a dimension between a point, line or surface on an erected component and its corresponding reference point, line or plane.
- **3.2.4 manufacturing deviation:** Algebraic difference between the actual size of a component, resulting from manufacture, and the corresponding reference size.
- **3.2.5 setting-out deviation:** Algebraic difference between the actual size and the reference size of the distance between set-out points or lines or of the distance between these points or lines and corresponding reference points or lines.
- **3.2.6 erection deviation**: Algebraic difference between the actual size and the reference size of a dimension between a point, line or surface on an erected component and its corresponding reference point, line or plane.

<sup>1)</sup> In this International Standard, the term "component" covers any manufactured product to be assembled as part of the building.

### **Annex**

# Example of use of terms

(This annex does not form an integral part of the standard.)

Figures 1 to 3 demonstrate use of the terms given in this part of ISO 1803.

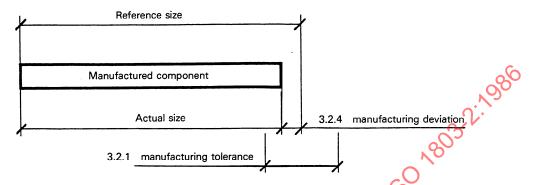


Figure 1 - Manufacturing tolerance and deviation

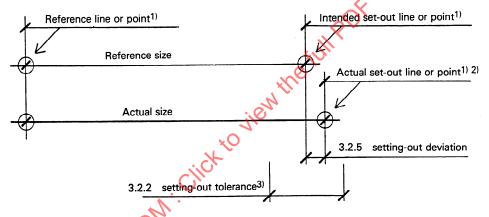


Figure 2 - Setting-out tolerance and deviation

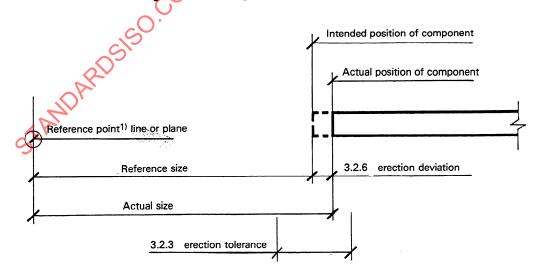


Figure 3 — Erection tolerance and deviation

<sup>1)</sup> Point denoted by circle in this figure.

Obtained by compliance measurement in accordance with ISO 4463/1.

Corresponds to permitted deviations in ISO 4463/1.

# **Bibliography**

ISO 1803/1, Building construction — Tolerances — Vocabulary — Part 1: General terms.

ISO 3443/1, Tolerances for building - Part 1: Basic principles for evaluation and specification.

ISO 3443/2, Tolerances for building — Part 2: Statistical basis for predicting fit between components having a normal distribution of sizes.

ISO 3443/5, Tolerances for building - Part 5: Series of values to be used for specification of tolerances.

ISO 4463/1, Measurement methods for building — Setting out and measurement — Part 1: Planning and organization, measuring procedures, acceptance criteria.

ISO 4464, Tolerances for building — Relationship between the different types of deviations and tolerances used for specification.

<sup>1)</sup> At present at the stage of draft. (Revision, in part, of ISO 4463-1979.)

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