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DIN 18202

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Supersedes
DIN 18202:2013-04

Tolerances in building construction – Buildings, English translation of DIN 18202:2019-07

Toleranzen im Hochbau –
Bauwerke,
Englische Übersetzung von DIN 18202:2019-07

Tolérances dans la construction immobilière –
Bâtiments,
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In case of doubt, the German-language original shall be considered authoritative.

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A comma is used as the decimal marker.

Contents

Foreword

This document has been prepared by Working Committee NA 005-01-07 AA "Tolerances and fits in building (national mirror committee for sub-sections of ISO/TC 59)" of *DIN-Normenausschuss Bauwesen* (DIN Standards Committee Building and Civil Engineering).

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Amendments

This standard differs from DIN 18202:2013-04 as follows:

a) the concept and application of the box principle has been revised and elaborated on;

b) the function of joints for a fit adjustment at joints has been included;

c) the measuring points to be used for compliance control have been expanded or revised;

d) the standard has been editorially revised.

Previous editions

DIN 18201: 1974-06, 1976-04, 1984-12, 1997-04
DIN 18202: 1986-05, 1997-04, 2005-10, 2013-04
DIN 18202-1: 1959-02, 1969-03
DIN 18202-2: 1974-06
DIN 18202-3: 1970-09
DIN 18202-4: 1974-06
Supplement 1 to DIN 18202-4: 1977-08
DIN 18202-5: 1979-10

Introduction

In the practical application of the standard, numerous uncertainties have arisen regarding which requirements (tolerance types or limit values) apply at which points of a structure (measuring points). To provide clarification for application of the standard and to avoid disputes, the following content has been revised or supplemented:

a) The box principle. The box principle for a fit space (see ISO 1803:1997, note to 4.10) has so far been applied for the combination of limit deviations for dimensions and limit values for angular deviations (see DIN 18202:2013-04, 5.2 and 5.3) and is also part of other standards (e.g. DIN EN 13670:2011-03, 10.1). The application of the box principle for all tolerance types has been clarified.

b) Combination of tolerance types. The simultaneous application of different tolerance types has so far been interpreted as the addition of different limit values. Following the box principle, compliance with each tolerance requirement is clarified separately (e.g. tolerance for a positional deviation of a component surface in space and simultaneously for a deviation in the surface shape of the surface of this component).

c) "Third length measurement". The so-called "third length measurement" in the middle of the component (in addition to the measurements at the edges or between the corner points) is not part of DIN 18202, but is specified in various component standards for checking dimensional accuracy (e.g. DIN EN 771-2:2015-11, 5.2.1, DIN EN 13369:2013-08, 5.2 and Annex J, DIN EN 14992:2012-09, Annex C, DIN EN 13225:2013-06, DIN EN 14843:2007-07, 5.1 and Table 4, DIN EN 991:1995-09, 5.2). In order to harmonize the requirements for testing a component as a separate element (in accordance with the relevant component standards) and for testing the component in its installed state (according to DIN 18202), the "third length measurement" in the middle of the component has been added to DIN 18202 while at the same time clarifying the box principle.

d) Measuring points. The measuring points specified in DIN 18202:2013-04, 6.3 are insufficient for practical building use, in particular for checking compliance with the box principle. An additional specification of measuring points for a specific case is not expressly provided for in the standard nor does it routinely take place in practice. For clarification, the specifications on measuring points have been expanded.

e) Joints. The function of a joint for the joint areas of adjacent components has been clarified with regard to tolerances.

f) The above-mentioned corrections only include the definition of the fit space (according to the box principle) to determine where tolerances according to DIN 18202 are to be applied in a structure or component and where measuring points are to be applied on that basis. The specified values for limit values remain unchanged.