INTERNATIONAL STANDARD



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Tolerances for building – Methods of measurement of buildings and building products –

Part 1: Methods and instruments

Tolérances pour le bâtiment — Méthodes de mesure des bâtiments et des produits pour le bâtiment —

Partie 1: Méthodes et instruments



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.

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 90 procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7976-1 was prepared by Technical Committee ISO/TC 59, *Building construction.*

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.

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Contents	
л. Э.	Page
1 Scope and field of application	1
2 References	1
3 General	1
3.1 Methods of measurement	1
3.2 Influence of deviations from reference conditions	2
Section one : Measuring methods for those measurements which can carried out both in factories and on building sites	be
4 Sizes of components	3
4.1 Length and width	4
4.2 Thickness or depth	7
4.3 Accuracy teble	8
5 Squareness (perpendicularity) of components	8
5.1 Angular deviation	10
5.2 Parallelism	15
5.3 Accuracy table	15
6 Straightness and camber of components	16
6.1 Straightness	17
6.2 Designed camber	18
6.3 Accuracy table	19
7 Flatness and skewness of components	19
7.1 Principles of measurement	19
7.2 Overall flatness	22
7.3 Local flatness	25
7.4 Skewness	28
7.5 Methods and equipment when measuring components according to box principle	the 29
7.6 Accuracy table	32
Section two : Measuring methods for those measurements which can carried out on building sites only	be
8 Position in the horizontal plane	37
8.1 Deviations in relation to structural grid lines	37

	8.2	Deviations in relation to secondary lines parallel to the building	39
	8.3	Deviations in relation to secondary lines perpendicular to the building	41
	8.4	Accuracy table	42
9	Devia	tions from level (levelling)	43
	9.1	Accuracy table	45
10	Vertic	ality	45
	10.1	Using a theodolite/optical plumbing instrument	46
	10.2	Using a clinometer.	50
	10.3	Using a plumb bob.	53
	10.4	Accuracy table	53
11	Eccer	itricity	54
	11.1	Accuracy table	55
12	Positi	on in relation to other components (openings and spaces)	56
	12.1	Accuracy table	65
13	Flatne	ess, straightness, designed camber	66
	13.1	Accuracy table	66
14	Other	important deviations	67
	14.1	Length of bearing surface	67
	14.2	Joint width	67
	14 2		68
	14.5		w
	14.4	Accuracy table	68
	14.4	Accuracy table	68
Se	14.3 14.4 ction t	Accuracy table	68
Sec 15	14.3 14.4 ction t Meas	Accuracy table	68 69
Sec 15	14.3 14.4 ction t Meas 15.1	Accuracy table	68 69
Sec 15	14.3 14.4 ction t Meas 15.1 15.2	Accuracy table	69 69
Sec 15	14.3 14.4 ction t Meas 15.1 15.2 15.3	Accuracy table	68 69 69 69
Sec 15	14.3 14.4 ction t Meas 15.1 15.2 15.3 15.3	Accuracy table	69 69 69 69 69 70
Sec 15	14.3 14.4 ction t Meas 15.1 15.2 15.3 15.4 15.5	Accuracy table	69 69 69 69 69 70 70
Se 15	14.3 14.4 Cetion t Meas 15.1 15.2 15.3 15.4 15.5 15.6	Accuracy table	68 69 69 69 69 69 70 70 70 70
Sec.	14.3 14.4 Cetion t Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7	Accuracy table	69 69 69 69 69 69 69 70 70 70 70 71
Sec 15	14.3 14.4 ction t Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8	Accuracy table	68 69 69 69 69 69 70 70 70 70 70 71 72
Se 15	14.3 14.4 ction t Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.6 15.7 15.8 15.9	Accuracy table	68 69 69 69 69 69 69 70 70 70 70 70 71 71 72 72
Sec.	14.3 14.4 ction t Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10	Accuracy table hree : Measuring instruments uring instruments General Sliding calipers and slide gauges EDM (electro-optical distance measuring) instruments Go/No Go gauges Clinometers (inclinometers) Laser instruments Spirit-levels Water levels Levelling instruments Micrometer measuring bars	68 69 69 69 69 69 70 70 70 70 71 72 72 73
See. 15	14.3 14.4 ction t Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11	Accuracy table	68 69 69 69 69 70 70 70 70 70 71 72 72 73 73
Sec.	14.3 14.4 Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11 15.12	Accuracy table	68 69 69 69 69 70 70 70 70 70 71 72 72 73 73 73 74
Sea	14.3 14.4 14.4 Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11 15.12 15.13	Accuracy table	68 69 69 69 69 69 70 70 70 70 71 72 72 73 73 73 73 74 74
See	14.3 14.4 Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11 15.12 15.13 15.14	Accuracy table . hree : Measuring instruments uring instruments . General . Sliding calipers and slide gauges . EDM (electro-optical distance measuring) instruments Go/No Go gauges . Clinometers (inclinometers) . Laser instruments . Spirit-levels . Levelling instruments . Micrometer measuring bars . Micrometer screw gauges . Micrometer screw gauges . Measuring magnifiers . Measuring rods . Telescopic measuring rods .	68 69 69 69 69 70 70 70 70 71 72 72 73 73 73 73 74 74 74
Sec.	14.3 14.4 14.4 Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.11 15.12 15.13 15.14 15.13	Accuracy table	68 69 69 69 69 70 70 70 70 71 72 72 73 73 73 74 74 74 74
Sea 15	14.3 14.4 14.4 Meas 15.1 15.2 15.3 15.4 15.5 15.6 15.7 15.8 15.9 15.10 15.12 15.13 15.14 15.15 15.14 15.15	Accuracy table	68 69 69 69 69 70 70 70 70 70 71 72 72 73 73 73 73 73 74 74 74 74 74

L.

15.18	Position pieces	75
15.19	Right-angle prisms	75
15.20	Squares	77
15.21	Straightedges	77
15.22	Retractable steel pocket tapes	77
15.23	Steel tapes	77
15.24	Targets (aiming targets)	78
15.25	Theodolites	78
15.26	Tripods	78
Anne	x — Tape corrections	
A .1	Sag correction	80
A.2	Temperature correction	80
A.3	Slope correction	80
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Tolerances for building — Methods of measurement of buildings and building products —

Part 1: Methods and instruments

1 Scope and field of application

This International Standard gives some alternative measuring methods for the determination of shape, dimensions and dimensional deviations of buildings and building products which are relevant to fit. The methods can also be applied when accuracy data are being collected in factories or on building sites.

Information is given about deviations of parts of buildings or building products which can be determined with the equipment described.

The measuring methods concern primarily those objects the faces of which are rectilinear in shape and which have a modulus of elasticity larger than 35 kPa, for example concrete, wood, steel, hard plastic. Building products consisting of glass wool and similar soft materials are not the subject of this International Standard.

Rules for quality control in all stages of measurement such as frequency checks, place, time, etc., are not covered by this International Standard.

Part two of this International Standard gives the position of measuring points to be used in the measurement described in this part.

To facilitate cross-referencing, the same numbering is used in the two parts of this International Standard.

2 References

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

ISO 7078, Building construction – Procedures for setting out, measurement and surveying – Vocabulary and guidance notes. ISO 7976-2, Tolerances for building – Methods of measurement of building and building products – Part 2: Position of measuring points.

ISO 8322, Building construction – Measuring instruments – Procedures for determining accuracy in use –

Part 1: Theory. 1)

Part 2: Measuring tapes. 1)

Part 3: Optical levelling instruments. 1)

Part 4: Theodolites. 1)

Part 5: Optical plumbing instruments. 1)

Part 6: Laser instruments. 1)

Z: Instruments when used for setting out. 1)

art & Electronic distance measuring instruments. 1)

3 General

3.1 Methods of measurement

The methods of measurement refer to the main dimensions of building products, distances between such products and their geometrical deviations. They may, however, also be applied to parts and to subdivisions in building products.

The items to be measured should be supported as they will be supported in use. When this is impractical, the support conditions should be agreed in the measuring schedule. If components are measured whilst they are in a manufacturing jig or mould, this should be noted. Flexible components should always be fully supported on a flat surface.

For both compliance measurements and for the collection of accuracy data, the measurement procedure should be significantly more accurate than the permitted deviation specified for the manufacturing or construction process to be measured.

¹⁾ At present at the stage of draft.