

इंटरनेट

मानक



Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

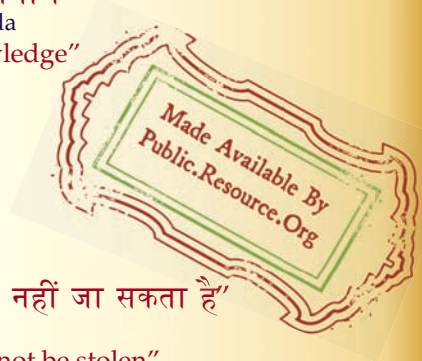
IS 1200-7 (1972): Method of measurement of building and civil engineering works, Part 7: hardware [CED 44: Methods of Measurement of Works of Civil Engineering]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



IS : 1200 (Part VII) - 1972
(Reaffirmed 2007)

Indian Standard

METHOD OF MEASUREMENT OF
BUILDING AND CIVIL ENGINEERING WORKS

PART VII HARDWARE

(*Second Revision*)

Seventh Reprint SEPTEMBER 2006
(Incorporating Amendment' No. 1 and 2)

UDC 69.003.12 : 683.1

© Copyright 1977

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

*Indian Standard*METHOD OF MEASUREMENT OF
BUILDING AND CIVIL ENGINEERING WORKS

PART VII HARDWARE

(Second Revision)

Civil Works Measurement Sectional Committee, BDC 44

<i>Chairmen</i>	<i>Representing</i>
SRI V. R. VAIKH	Bureau of Public Enterprises (Ministry of Finance)
<i>Members</i>	
SRI N. P. ACHARYYA	Calcutta Port Trust, Calcutta
SRI R. G. ANAND	Indian Institute of Architects, Bombay
SRI S. K. ANAND	Engineer-in-Chief's Branch, Army Headquarters (Ministry of Defence)
SRI V. V. SANDARAN (<i>Alternate</i>)	Ministry of Health & Family Planning
ASSISTANT ADVISER (PHE)	Hindustan Steel Works Construction Ltd, Calcutta
SRI B. G. BALJERAR	Heavy Engineering Corporation, Ranchi
CHIEF ENGINEER	Public Works Department, Government of Andhra Pradesh
CHIEF ENGINEER (R & B)	
SUPERINTENDING ENGINEER (PLANNING & DESIGN) (<i>Alternate</i>)	
SRI W. J. DA GAMA	Bombay Port Trust, Bombay
SRI V. B. DEBAI	Hindustan Construction Co Ltd, Bombay
DIRECTOR (IRI)	Irrigation Department, Government of Uttar Pradesh
DIRECTOR (RATES & COSTS)	Central Water & Power Commission, New Delhi
DEPUTY DIRECTOR (RATES & COSTS) (<i>Alternate</i>)	
SRI P. K. DOCTOR	Concrete Association of India, Bombay
SRI D. S. VIJAYENDRA (<i>Alternate</i>)	
EXECUTIVE ENGINEER (PLANNING & DESIGN), NORTHERN RAILWAY	Ministry of Railways
SRI P. N. GADI	Institution of Engineers (India), Calcutta
SRI D. GUHA	Institution of Surveyors, New Delhi
SRI P. L. BHASHI (<i>Alternate</i>)	
SRI G. V. HINGORANI	Gammon India Ltd, Bombay
SRI H. K. KHOSLA	Beas Dam Project, Talwara Township
SRI KRISHAN KUMAR	Ministry of Shipping & Transport (Roads Wing)
SRI L. R. KADIYALI (<i>Alternate</i>)	
SRI K. K. MADHOK	Builders' Association of India, Bombay
SRI MUNISH GUPTA (<i>Alternate</i>)	

(Continued on page 2)

IS : 1200 (Part VII) - 1972

(Continued from page 1)

<i>Members</i>	<i>Representing</i>
SRI T. S. MURTHY	National Projects Construction Corporation, New Delhi
SRI K. N. TANJJA (Alternats)	
SRI C. B. PATEL	M. N. Dastur & Co Private Ltd, Bombay
SRI B. C. PATEL (Alternats)	
SRI Y. G. PATEL	Patel Engineering Co Ltd, Bombay
SRI C. K. CHOKEHI (Alternats)	
SRI A. A. RAJU	Hindustan Steel Ltd, Ranchi
SRI S. SRINIVASAN (Alternats)	
SRI RAVINDER LAL	National Buildings Organisation, New Delhi
SRI S. H. BALCHANDANI (Alternats)	
SRI K. G. SALVI	Hindustan Housing Factory, New Delhi
SRI G. B. SINGH (Alternats)	
SECRETARY	Central Board of Irrigation & Power, New Delhi
DR R. B. SINGH	Motilal Nehru Regional Engineering College Allahabad
SUPERINTENDING SURVEYOR OF WORKS (AVIATION)	Central Public Works Department (Aviation)
SURVEYOR OF WORKS (I)	
ATTACHED TO SUPERINTENDING SURVEYOR OF WORKS (AVIATION) (Alternats)	
SUPERINTENDING SURVEYOR OF WORKS (I)	Central Public Works Department
SURVEYOR OF WORKS (I)	
ATTACHED TO SUPERINTENDING SURVEYOR OF WORKS (I) (Alternats)	
TECHNICAL EXAMINER	Building & Communication Department, Government of Maharashtra
SRI B. K. UPPAL	Bhakra Management Board, Nangal Township
SRI P. S. RAO (Alternats)	
SRI D. AJITHA SHAMA, Director (Civ Engg)	Director General, BIS (<i>Ex-officio Member</i>)

Secretary

SRI K. M. MATHEW

Assistant Director (Civ Engg), BIS

Indian Standard
METHOD OF MEASUREMENT OF
BUILDING AND CIVIL ENGINEERING WORKS
PART VII HARDWARE
(*Second Revision*)

0. FOREWORD

0.1 This Indian Standard (Part VII) (Second Revision) was adopted by the Indian Standards Institution on 17 May 1972, after the draft finalized by the Civil Works Measurement Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Measurement occupies a very important place in the planning and execution of any civil engineering work from the time of first estimates to the final completion and settlement of payments for a project. Methods followed for measurement are not uniform and considerable differences exist between practices followed by different construction agencies and also between various Central and State Government Departments. While it is recognized that each system of measurement has to be specifically related to administrative and financial organizations within a department responsible for the work, a unification of various systems at technical level has been accepted as very desirable specially as it permits a wider range of operation for civil engineering contractors and eliminates ambiguities and misunderstandings of various systems followed.

0.3 Among various civil engineering items, measurement of buildings was the first to be taken up for standardization and this standard having provisions relating to building work was first published in 1958 and was revised in 1964.

0.4 In the course of usage of this standard by various construction agencies in the country, several clarifications and suggestions for modifications were received and as a result of study, the technical committee responsible for this standard decided to cover method of measurement for civil engineering works like industrial and river valley projects.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a measurement, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

IS : 1200 (Part VII) - 1972

1. SCOPE

1.1 This standard (Part VII) covers the method of measurement of hardware in buildings and civil engineering works.

2. GENERAL

2.1 Description of Item — The description of each item shall, unless otherwise stated, be held to include, wherever necessary, conveyance and delivery, handling, unloading, storing and all labour for fitting and fixing in position, cutting and waste, return of packing, etc.

2.2 Limits of Measurement — The dimensions shall be measured net in decimal system nearest to 0.01 m.

2.3 Bills of Quantities — The bills of quantities shall fully describe the materials and workmanship and accurately represent the work to be executed.

2.4 Mode of Measurements — The various kinds of builders hardware shall be described and measured separately according to the material, finish, size, pattern and method of fixing.

2.4.1 All builders hardware shall be fully described and enumerated except the following which shall be measured in running metres:

- a) Curtain rods or poles, stating the outer diameter;
- b) Curtain Rails — Curtain runners, brackets and stops shall be described and included with the item stating the number per metre of rail;
- c) Rails for sliding sashes stating the size of the rail; and
- d) Sash Lines — The girth or diameter shall be stated.

2.5 Fixing of hardware items shall include all fittings, cutting, sinking, boring and morticing, the supply of screws (or bolts, nuts and washers in the case of hardware made for fixing with bolts), to match.

2.6 Hardware fixed to wood and metal shall each be measured separately.

2.7 Hardware fixed flush shall be so described.

3. MEASUREMENT OF SIZES OF HARDWARE

3.1 The sizes of the hardware articles (*see* 2.4) shall be measured as indicated in Table 1.

TABLE 1 MEASUREMENT OF HARDWARE

(Clause 3.1)

Sl No.	NAME OF ARTICLE	HOW MEASURED
1)	Bolts	a) The length of face plate in flush bolts b) The length of shoots (bolt) in other bolts
2)	Hinges	a) The length of the joint or knuckle of butt hinges b) The width between flanges and also the height of parliament hinges c) The length of the leaf (that is, from the joint or knuckle to the point), in case of tee and strap hinges d) The length of the spring cylinder for regulating spring of butt hinges e) The length of joint in case of back flap hinges
3)	Latches (Suffolk or Norfolk)	The dimensions of the plate (having the bow handle) and the size number
4)	Latches, rim (Night)	} The horizontal length of face across the body excluding the box staple or striking plate
5)	Locks, rim	
6)	Locks, mortice	
7)	Locks, cabinet or cup board	
8)	Locks drawer	
9)	Locks furniture	The maximum diameter of the knob
10)	Cleas belaying	Straight distance between two ends of cleat
11)	Catches, spring (for fan-light)	The flat overall size in elevation of the plate with spring catch excluding the striking plate
12)	Fasteners, cockspur	The length of handle from the centre of pivot or hinged joint
13)	Fasteners and stays (casement)	Extreme length including thickness of back plate
14)	Pivots and sockets	The dimensions of each plate
15)	Stays, quadrant (for fan-light)	The shortest straight length between the extreme ends of the quadrant stay

(Continued)

TABLE 1 MEASUREMENT OF HARDWARE — Contd

Sl. No.	NAME OF ARTICLE	HOW MEASURED
16)	Brackets for shelving	The extreme width and height
17)	Door handles	Grip length
18)	Hat pegs	Extreme length including thickness of plate
19)	Hat and coat hooks	Measured diagonally from extreme top of fixing plate to the extreme top of knob
20)	Wardrobe hooks	Measured diagonally from extreme top of fixing plate to the extreme top of knob
21)	Screw hooks dresser or cup pattern	Straight length excluding screwed end
22)	Cabin or cavernment hook with two eyes on plate	Straight length between centre of two eyes when fixed
23)	Wire hooks with two screwed eyes	The overall length of the hook excluding the screwed eye. The diameter of wire shall be stated
24)	Knob	The maximum diameter of the knob
25)	Hasp and staples:	
	a) Wire type	The overall length of hasp including the hinged plate
	b) Plate type	The length measured from the centre of the hinge to the end of the hasp excluding the hinged plate
26)	Strips, rat-tail including friction plate } Springs, patent helical }	Length measured from the centre of the spindle to the centre of the roller
27)		
28)	Screwed eyes	The overall length of the screwed eye and diameter of wire shall be stated
29)	Door closer (hydraulically regulated)	The weight and the width of the door to which it is intended to be fitted shall be stated
30)	Finger plate:	The length, width and thickness of the plates
31)	Sliding door bolt (Aldrop)	Length of the bolt
32)	Floor door stopper with plate	Length of its plate
33)	Hooks and eyes	Length of the hook measured out to out

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones : 23230131, 23233375, 23239402 Fax : 91+011 23239399, 23239382

E-Mail : info@bis.org.in

Website : http://www.bis.org.in

Central Laboratory:

Plot No. 20/9, Site IV, Sahibabad Industrial Area, SAHIBABAD 201010

Telephone

277 0032

Regional Offices:

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002 2323 7617

*Eastern : 1/14 CIT Scheme VII M, V.I.P. Road, Kankurgachi, KOLKATA 700054 2337 8662

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022 260 3843

Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113 2254 1984

Western : Manakalaya, E9, MIDC, Behind Marol Telephone Exchange,
Andheri (East), MUMBAI 400093 2832 8295

Branch Offices:

'Pushpak', Nurmohamed Shaikh Marg, Khanpur, AHMEDABAD 380001 2560 1348

Peenya Industrial Area, 1st Stage, Bangalore-Tumkur Road, BANGALORE 560058 2839 4955

Commercial-cum-Office Complex, Opp. Dushera Maidan, E-5 Arera Colony,
Bittan Market, BHOPAL 462016 242 3452

62-63, Ganga Nagar, Unit VI, BHUBANESHWAR 751001 240 3139

5th Floor, Koval Towers, 44 Bala Sundaram Road, COIMBATORE 641018 221 0141

SCO 21, Sector 12, FARIDABAD 121007 229 2175

Savitri Complex, 116 G. T. Road, GHAZIABAD 201001 286 1498

53/5 Ward No. 29, R. G. Barua Road, 5th By-lane, Apurba Sinha Path,
GUWAHATI 781003 245 6508

5-8-56C, L. N. Gupta Marg, Nampally Station Road, HYDERABAD 500001 2320 1084

E-52, Chitaranjan Marg, C-Scheme, JAIPUR 302001 237 3879

117/418 B, Sarvodaya Nagar, KANPUR 208005 223 3012

'Sethi Bhawan', 2nd Floor, Behind Leela Cinema, Naval Kishore Road,
LUCKNOW 226001 261 8923

NIT Building, Second Floor, Gokulpat Market, NAGPUR 440010 256 5171

Plot No. A-20-21, Institutional Area, Sector 82, Gautam Budh Nagar, NOIDA 201307 240 2206

H. No. 15, Sector 3, PARWANOO 173220 23 5436

Patliputra Industrial Estate, PATNA 800013 226 2808

First Floor, Plot Nos 657-660, Market Yard, Gultekdi, PUNE 411037 2426 1096

'Sahajanand House', 3rd Floor, Bhaktinagar Circle, 80 Feet Road, RAJKOT 360002 237 8251

T.C. No. 14/1421, University P.O. Palayam, THIRUVANANTHAPURAM 695034 233 9174

1st Floor, Udyog Bhavan, VUDA, Siripuram Junction, VISHAKHAPATNAM-03 271 2833

*Sales Office is at 5 Chowringhee Approach, P. O. Princep Street, KOLKATA 700072 2212 8215