

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

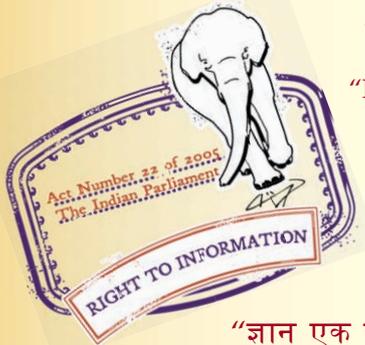
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 771-3-2 (1985): Glazed Fire-Clay Sanitary Appliances, Part 3: Specific Requirements of Urinals: Section 2 Stall Urinals [CED 3: Sanitary Appliances and Water Fittings]



“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 : 771 (Part 3/Sec 2) - 1985

Indian Standard

SPECIFICATION FOR
GLAZED FIRE-CLAY SANITARY APPLIANCES

PART 3 SPECIFIC REQUIREMENTS OF URINALS

Section 2 Stall Urinals

(Third Revision)

UDC 696.141.2 [666.647]



© Copyright 1986

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

Indian Standard

SPECIFICATION FOR GLAZED FIRE-CLAY SANITARY APPLIANCES

PART 3 SPECIFIC REQUIREMENTS OF URINALS

Section 2 Stall Urinals

(Third Revision)

Sanitary Appliances and Water Fittings Sectional Committee, BDC 3

Chairman

SHRI K. D. MULEKAR

Representing

Municipal Corporation of Greater Bombay,
Bombay

Members

ADVISER

Central Public Health & Environmental
Engineering Organization (Ministry of Works
& Housing), New Delhi

DEPUTY ADVISER (PHE) (*Alternate*)

SHRI J. R. AGGARWAL

M/s Goverdhan Das P. A. (Calcutta), Calcutta

SHRI S. K. BANERJEE

National Test House, Calcutta

SHRI D. K. KANUNGO (*Alternate*)

SHRI M. K. BASU

Central Glass & Ceramic Research Institute
(CSIR), Calcutta

CHIEF ENGINEER

Uttar Pradesh Jal Nigam, Lucknow

SUPERINTENDING ENGINEER (*Alternate*)

CHIEF ENGINEER

Public Health Engineering Department,
Trivandrum

SHRI K. RAMACHANDRAN (*Alternate*)

SHRI J. D'CRUZ

Delhi Municipal Corporation, Delhi

SHRI S. A. SWAMY (*Alternate*)

SHRI B. R. N. GUPTA

Engineer-in-Chief's Branch, Army Headquarters,
New Delhi

SHRI K. V. KRISHNAMURTHY (*Alternate*)

HYDRAULIC ENGINEER

Municipal Corporation of Greater Bombay,
Bombay

DEPUTY HYDRAULIC ENGINEER (*Alternate*)

(Continued on page 2)

© Copyright 1986

INDIAN STANDARDS INSTITUTION

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

IS : 771 (Part 3/Sec 2) - 1985

(Continued from page 1)

<i>Members</i>	<i>Representing</i>
SHRI S. R. KSHIRSAGAR	National Environmental Engineering Research Institute (CSIR), Nagpur
SHRI A. W. DESHPANDE (<i>Alternate</i>)	
SHRI K. LAKSHMINARAYANAN	Hindustan Shipyard Ltd, Vishakhapatnam
SHRI A. SHARIFF (<i>Alternate</i>)	
DR A. V. R. RAO	National Buildings Organization, New Delhi
SHRI J. SENGUPTA (<i>Alternate</i>)	
SHRI A. K. SARKAR	E.I.D. Parry (India) Limited, Madras
SHRI M. DORAISWAMY (<i>Alternate</i>)	
SHRI D. K. SERGAL	Leader Engineering Works, Jalandhar
SHRI B. B. SIKKA (<i>Alternate</i>)	
SENIOR CIVIL ENGINEER (WATER SUPPLY)	Ministry of Railway (Railway Board), New Delhi
SHRI S. K. SHARMA	Central Building Research Institute (CSIR), Roorkee
SHRI M. N. SHEWADE	Maharashtra Water Supply & Sewerage Board, New Bombay
SHRI R. K. SOMANY	Hindustan Sanitaryware & Industries Limited, Bahadurgarh
SUPERINTENDING SURVEYOR OF WORKS (NDZ)	Central Public Works Department, New Delhi
SURVEYOR OF WORKS I (NDZ) (<i>Alternate</i>)	
SHRI R. THANJAN	Directorate General of Technical Development, New Delhi
SHRI M. M. ALIKHAN (<i>Alternate</i>)	
SHRI T. N. UBOVEJA	Directorate General of Supplies & Disposals, New Delhi
SHRI G. RAMAN, Director (Civ Engg)	Director General, ISI (<i>Ex-officio Member</i>)
	<i>Secretary</i>
	SHRI K. K. SHARMA
	Joint Director (Civ Engg), ISI

Domestic Sanitary Appliances and Accessories Subcommittee, BDC 3 : 1

<i>Convener</i>	
SHRI B. R. N. GUPTA	Engineer-in-Chief Branch, Army Headquarters, New Delhi
	<i>Members</i>
SHRI V. ANANTHANARAYANAN	East India Ceramics, Vellore
SHRI M. K. BASU	Central Glass & Ceramic Research Institute (CSIR), Calcutta
CHIEF ENGINEER	Tamil Nadu Water Supply & Drainage Board, Madras
CHIEF ENGINEER (SEWERAGE)	Municipal Corporation of Greater Bombay, Bombay
DEPUTY CHIEF ENGINEER (SEWERAGE) (<i>Alternate</i>)	

(Continued on page 7)

Indian Standard

SPECIFICATION FOR GLAZED FIRE-CLAY SANITARY APPLIANCES

PART 3 SPECIFIC REQUIREMENTS OF URINALS

Section 2 Stall Urinals

(*Third Revision*)

0. FOREWORD

0.1 This Indian Standard (Part 3/Sec 2) (Third Revision) was adopted by the Indian Standards Institution on 31 July 1985, after the draft finalized by the Sanitary Appliances and Water Fittings Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 This standard was first published in 1958 and subsequently revised in 1963 and 1979. This revision has been taken up to include an additional size of stall urinal also in use. The general requirements applicable to all appliances and specific requirements for different types of appliances have been covered in separate parts of the standard. This standard (Part 3/Section 2) lays down the specific requirements of stall urinals.

0.3 In the formulation of this standard due weightage has been given to international coordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

0.4 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 test or analysis, 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.

1. SCOPE

1.1 This standard (Part 3/Sec 2) lays down the sizes, construction, dimensions, tolerances and finish of stall urinals made of fire clay.

* Rules for rounding off numerical values (*revised*).

IS : 771 (Part 3/Sec 2) - 1985

2. REQUIREMENTS

2.1 General — The general requirements for material, manufacture, methods of test, and inspection shall conform to IS : 771 (Part 1)-1979*.

2.2 Type and Size — The type and size of stall urinals shall be as given in Table 1 (*see* Fig. 1).

TABLE 1 TYPE AND SIZE OF STALL URINALS

TYPE 1 mm	TYPE 2 mm
1 140 × 460 × 400	1 500 × 520 × 400

2.2.1 The stall urinals may be made in other sizes where so agreed to between the manufacturer and the purchaser. However, tolerances on dimensions shall be as specified in this standard.

2.3 Construction — Stall urinals shall be manufactured either as a single urinal or as a range of two or more urinals as specified by the purchaser. The inside surface of the urinals shall be regular and smooth throughout to ensure efficient flushing. The bottom of urinals shall have sufficient slope from the front towards the outlet such that there is efficient draining of the urine.

2.4 Dimensions and Tolerances — The dimensions and tolerances shall be as given in Table 2.

TABLE 2 DIMENSIONS AND TOLERANCES OF STALL URINALS

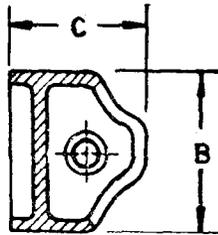
All dimensions in millimetres.

	A	B	C	D	E	F	G	H	J
Type 1	1 140 ± 45	460 ± 18	400 ± 16	255 ± 10	100 ± 4	25 ± 2	100 ± 4	65 + 3 - 0	90 ± 4
Type 2	1 500 ± 60	500 ± 20	400 ± 16	190 ± 7	90 ± 4	35 ± 2	80 ± 3	65 + 3 - 0	90 ± 4

3. MARKING

3.1 Each stall urinal shall be clearly and indelibly marked at a prominent place with the type, name and trade-mark of the manufacturer.

*Specification for glazed fire-clay sanitary appliances: Part 1 General requirements (*second revision*).



SECTION XX

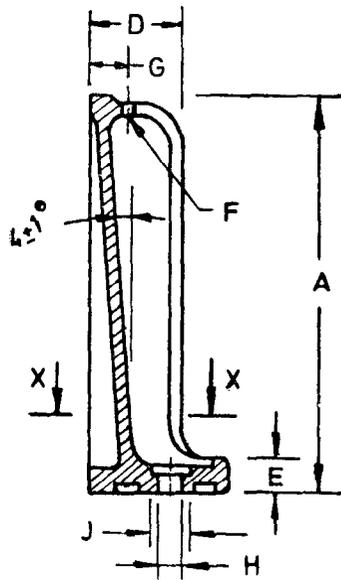


FIG. 1 STALL URINAL

IS : 771 (Part 3/Sec 2) - 1985

3.1.1 Each stall urinal conforming to the requirements specified in this standard may also be marked with the ISI certification mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4. SAMPLING

4.1 Sampling shall be done in accordance with IS : 9140-1985*.

*Methods of sampling of vitreous and fire-clay sanitary appliances (*first revision*).

(Continued from page 2)

<i>Members</i>	<i>Representing</i>
SRI J. D' CRUZ	Municipal Corporation of Delhi, Delhi
SRI S. S. RAMRAKHYANI (<i>Alternate</i>)	
DEPUTY DIRECTOR (ARCH)	Research, Designs & Standards Organization (Ministry of Railways), Lucknow
ASSISTANT DIRECTOR (ARCH) (<i>Alternate</i>)	
SRI A. A. GANPULE	Parshuram Pottery Works Co Ltd, Thangadh
SRI RAJENDRA KUMAR (<i>Alternate</i>)	
SRI S. P. JAMES	Public Health Engineering Department, Trivandrum
SRI K. RAMACHANDRAN (<i>Alternate</i>)	
SRI B. D. KOTHARI	Madhusudan Ceramics, Ahmadabad
SRI M. S. BHATT (<i>Alternate</i>)	
SRI K. V. KRISHNAMURTHY	Engineer-in-Chief's Branch, Army Headquarters, New Delhi
SRI K. V. KRISHNAN	Indian Plastics Limited, Bombay
SRI M. L. ANAND (<i>Alternate</i>)	
SRI J. LAKHANI	Roplas (India) Limited, Pune
SRI E. D. SHARMA (<i>Alternate</i>)	
SRI B. K. MALHAN	In personal capacity, (9 Jain Mandir Road, New Delhi)
SRI B. S. MIRCHANDANI	Phenoweld Polymer Pvt Ltd, Bombay
SRI P. R. GUPTA (<i>Alternate</i>)	
SRI A. K. SARKAR	E. I. D. Parry (India) Ltd, Madras
SRI M. DORAISWAMY (<i>Alternate</i>)	
SRI UMATOSH SARKAR	Neiveli Ceramics & Refractories Ltd, Vadalur
SRI L. R. SEHGAL	M/s Sehgal & Co, New Delhi
SRI J. SENGUPTA	National Buildings Organization, New Delhi
SRI O. P. RATHA (<i>Alternate</i>)	
SRI S. K. SHARMA	Central Building Research Institute (CSIR), Roorkee
SRI R. K. SOMANY	Hindustan Sanitaryware & Industries Ltd, Bahadurgarh
SUPERINTENDING SURVEYOR OF WORKS (SWZ)	Central Public Works Department, New Delhi
SURVEYOR OF WORKS (NDZ) (<i>Alternate</i>)	
SRI G. K. TAKIAR	FGP Ltd, New Delhi
SRI S. M. DASTUR (<i>Alternate</i>)	
SRI T. N. UBOVEJA	Directorate General of Supplies & Disposals, New Delhi

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

QUANTITY	UNIT	SYMBOL	DEFINITION
Force	newton	N	$1 \text{ N} = 1 \text{ kg}\cdot\text{m}/\text{s}^2$
Energy	joule	J	$1 \text{ J} = 1 \text{ N}\cdot\text{m}$
Power	watt	W	$1 \text{ W} = 1 \text{ J}/\text{s}$
Flux	weber	Wb	$1 \text{ Wb} = 1 \text{ V}\cdot\text{s}$
Flux density	tesla	T	$1 \text{ T} = 1 \text{ Wb}/\text{m}^2$
Frequency	hertz	Hz	$1 \text{ Hz} = 1 \text{ c}/\text{s} (\text{s}^{-1})$
Electric conductance	siemens	S	$1 \text{ S} = 1 \text{ A}/\text{V}$
Electromotive force	volt	V	$1 \text{ V} = 1 \text{ W}/\text{A}$
Pressure, stress	pascal	Pa	$1 \text{ Pa} = 1 \text{ N}/\text{m}^2$



INDIAN STANDARDS INSTITUTION

Headquarters:

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

Telephones: 3 31 01 31, 3 31 13 75

Telegrams: Manaksanstha

(Common to all Offices)

Regional Offices:

Telephone

*Western : Manakalaya, E9 MIDC, Marol, Andheri (East), BOMBAY 400193	5 32 92 95
†Eastern : 1/14 C.I.T. Scheme VII M, V.J.P. Road, Manikola, CALCUTTA 700054	36 24 99
Southern : C.I.T. Campus, MADRAS 600113	41 24 42
Northern : SCO 445-446, Sector 35-C, CHANDIGARH 160036	{ 2 18 43 3 16 41

Branch Offices:

'Pushpak', Nurmohamed Shaikh Marg, Khanpur, AHMADABAD 380001	{ 2 63 43 2 63 49
'F' Block, Unity Bldg, Narasimharaja Square, BANGALORE 550002	22 48 05
Gangotri Complex, Bhadbhada Road, T. T. Nagar, BHOPAL 462003	6 27 16
22E Kalpana Area, BHUBANESHWAR 751014	5 36 27
5-8-56C L. N. Gupta Marg, HYDERABAD 500001	22 10 83
R14 Yudhister Marg, C Scheme, JAIPUR 302005	6 08 32
117/418 B Sarvodaya Nagar, KANPUR 208005	4 72 92
Patliputra Industrial Estate, PATNA 800013	6 23 05
Hantex Bldg (2nd Floor), Rly Station Road, TRIVANDRUM 695001	32 27

Inspection Office (With Sale Point):

Institution of Engineers (India) Building, 1332 Shilvaji Nagar, PUNE 411005	5 24 35
---	---------

*Sales Office in Bombay is at Novelty Chambers, Grant Road, Bombay 400007 89 65 23

†Sales Office in Calcutta is at 5 Chowringhee Approach, P.O. Princep Street, Calcutta 700079 27 68 06