IS : 1700 - 1973
(Reaffirmed 1992)
(Reaffirmed 1997)

Indian Standard

SPECIFICATION FOR DRINKING FOUNTAINS

(First Revision)

Second Reprint MARCH 1997

UDC 621.643.53

© *Copyright* 1973

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

Gr 2 *July* 1973

Indian Standard

SPECIFICATION FOR DRINKING FOUNTAINS

(First Revision)

Sanitary Appliances and Water Fittings Sectional Committee, BDC 3

Chairman	*Representing*
SHRI J. M. DAVE	Ministry of Health & Family Planning
Members	
SHRI H. R. BADYAL	Indian Iron & Steel Co Ltd, Calcutta
SHRI K. D. BISWAS (*Alternate*)	
SHRI B. B. BHALERAO	Central Public Health Engineering Research Institute (CSIR), Nagpur
SHRI S. R. ALAGARSAMY (*Alternate*)	
SHRI V. D. CHADHA	Ministry of Railways
CHIEF ENGINEER	Central Public Works Department
SUPERINTENDING ENGINEER (*Alternate*)	
CHIEF ENGINEER (WATER)	Local Self Government Engineering Department, Lucknow
SUPERINTENDING ENGINEER (*Alternate*)	
CHIEF ENGINEER	Municipal Corporation of Delhi
DRAINAGE ENGINEER (*Alternate*)	
CITY ENGINEER	Bombay Municipal Corporation
HYDRAULIC ENGINEER (*Alternate*)	
SHRI H. N. DALLAS	Indian Institute of Architects, Bombay
LALA G. C. DAS	National Test House, Calcutta
SHRI M. DURAIRAJAN	Tamil Nadu Water Supply & Drainage Board, Madras
SHRI M. T. KANSE	Directorate General of Supplies & Disposals
SHRI G. S. SUBBARAMAN (*Alternate*)	
SHRI S. C. KAPOOR	Delhi Development Authority
SHRI R. V. LELE	Central Glass & Ceramic Research Institute (CSIR), Calcutta
SHRI R. N. MALLICK	Directorate General of Technical Development
SHRI N. R. SRINIVASAN (*Alternate*)	

(*Continued on page* 2)

© *Copyright* 1973
BUREAU OF INDIAN STANDARDS
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.

(*Continued from page* 1)

Members	*Representing*
SHRI R. M. MEHRA	Bombay Potteries & Tiles Ltd, Bombay
SHRI V. P. NARAYANAN NAYAR	Public Health Engineering Department, Government of Kerala
SHRI K. RAMACHANDRAN (*Alternate*)	
SHRI A. H. PATEL	Ahmedabad Municipal Corporation
DR A. V. R. RAO	National Buildings Organization, New Delhi
SHRI G. T. BHIDE (*Alternate*)	
*SHRI B. B. RAU	Institution of Engineers (India), Calcutta
REPRESENTATIVE	Central Building Research Institute (CSIR), Roorkee
COL K. B. SETH	Engineer-in-Chief's Branch, Army Headquarters
SHRI R. B. SUJAN (*Alternate*)	
SHRI J. L. SETHI	Public Health Engineering Department, Government of Haryana
SHRI A. N. MEHENDALE (*Alternate*)	
SHRI R. K. SOMANY	Hindustan Sanitaryware Industries Ltd, Bahadurgarh
SHRI V. S. BHATT (*Alternate*)	
SHRI S. SRINIVASAN	Hindustan Shipyard Ltd, Visakhapatnam
SHRI B. ULLAL	E. I. D. Parry Ltd, Madras
SHRI T. S. CHINTAMANI (*Alternate*)	
SHRI D. AJITHA SIMHA, Director (Civ Engg)	Director General, ISI (*Ex-officio Member*)

Secretary

SHRI C. R. RAMA RAO
Deputy Director (Civ Engg), ISI

Domestic and Municipal Water Fittings Subcommittee, BDC 3 : 2

Convener

HYDRAULIC ENGINEER	Bombay Municipal Corporation

Members

SHRI V. D. CHADHA	Ministry of Railways
CHIEF ENGINEER	Local Self Government Engineering Department, Lucknow
SUPERINTENDING ENGINEER (*Alternate*)	
CHIEF ENGINEER	Tamil Nadu Water Supply & Drainage Board, Madras
CHIEF ENGINEER (WATER)	Delhi Municipal Corporation
DEPUTY CHIEF ENGINEER (WATER) (*Alternate*)	
SHRI GOVERDHAN DAS P. A	Goverdhan Das P. A, Jullundur City
SHRI M. T. KANSE	Directorate General of Supplies & Disposals
SHRI G. S. SUBBARAMAN (*Alternate*)	

(*Continued on page* 8)

*He is also alternate to Shri J. M. Dave.

Indian Standard

SPECIFICATION FOR DRINKING FOUNTAINS

(First Revision)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 16 February 1973, 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 originally published in 1960 incorporating the essential requirements for manufacture and use of drinking fountains in public places, parks and schools. A revision of the standard has been taken up mainly to incorporate references to current Indian Standards for various types of materials allowed in the standard.

0.3 This standard contains clause **3.4.1** which permits the purchaser to use his option for selection to suit his requirements.

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 covers the material, construction, essential hygienic and performance requirements and finish of drinking fountains used in schools, parks and other public places.

2. MATERIALS

2.1 Suitable materials for manufacture of drinking fountains are given in Table 1.

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

TABLE 1 MATERIALS FOR DRINKING FOUNTAINS

(*Clause* 2.1)

Sl No.	Component Part	Material	Reference to Indian Standard
i)	Basin or receptacle	a) Glazed earthenware	Part I of IS : 771-1963*
		b) Vitreousware	IS : 2556 (Part I)-1967†
		c) Enamelled cast iron	IS : 772-1973‡
		d) Cement concrete with smooth finish	IS : 456-1964§
		e) Stoneware	IS : 2838-1964‖
		f) Stainless steel	—
ii)	Pipe work for jet mechanism	a) Brass	IS : 407-1966¶, Alloy 1 or 2
		b) Copper, solid drawn	—
		c) Stainless steel	—
iii)	Fittings	a) Brass, cast or hot pressed	IS : 292-1961**, Grade 3
		b) Stainless steel cast or hot pressed	—
iv)	Nozzle	a) Bronze	IS : 306-1968††
		b) Any other non-oxidizing copper alloy	—

*Specification for glazed earthenware sanitary appliances (*revised*).

†Specification for vitreous sanitary appliances (vitreous china): Part I General requirements (*first revision*).

‡General requirements of enamelled cast iron sanitary appliances (*second revision*). (Under print).

§Code of practice for plain and reinforced concrete (*second revision*).

‖Specification for stoneware containers for general purposes.

¶Specification for brass tubes for general purposes (*second revision*).

**Specification for brass ingots and castings (*revised*).

††Specification for tin bronze ingots and castings (*second revision*).

3. CONSTRUCTION

3.1 Basin or Receptacle

3.1.1 The basin shall be of one piece construction with the sides lipped over throughout the interior of the perimeter of the basin so as to prevent splashing and with the sides designed to have a fall from all sides towards the outlet, as illustrated in Fig. 1, so as to ensure complete drainage.

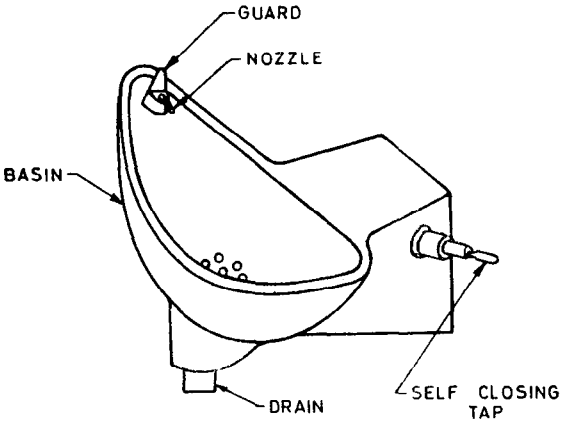

FIG. 1 TYPICAL ILLUSTRATION OF DRINKING FOUNTAIN

3.1.2 The basin shall be so constructed as to be free from corners which would be difficult to clean or which would accumulate dirt, and it shall be so designed as to prevent splashing at a point where the jet falls into the basin.

3.1.3 The basin shall be fixed at such a height that the drinking level is most convenient to persons utilizing the fountain.

3.2 Jet Mechanism

3.2.1 The jet may be preferably inserted at the sides. The arrangement shall be such that when the fountain is operating without hindrance under normal conditions the stream shall fall approximately in the area of the waste outlet.

3.2.2 The jet of the fountain shall issue from a nozzle which shall be set at an angle from the vertical so as to prevent the back flow of water in the jet of the orifice. The nozzle and every other opening in the water pipe leading to the nozzle shall be above the edge of the basin so that they may not be flooded in case the fountain drain gets clogged.

3.2.3 Nozzles shall be circular in cross section and shall have a convergence which becomes more gradual as the outlet is approached. The length of the nozzle shall not exceed 2·5 times the diameter of the supply pipe and the diameter of the nozzle orifice shall not exceed one-third the diameter of the pipe line.

3.2.4 The nozzle end shall be protected by a corrosion resistant guard to prevent the mouth and nose of persons using the fountain from coming

into contact with the nozzle. Guards shall be so constructed that they obstruct the jet of water issuing from the nozzle and thereby prevent spattering and they shall be so designed that the possibility of transmission of infection by touching the guard is reduced to a minimum.

3.2.5 All drinking fountain nozzles including those which may at times extend through a water surface and with nozzle mouth not greater than 10 mm diameter or one square centimetre in area shall be so placed that the lower edge of the nozzle mouth is at an elevation not less than 20 mm above the floor level rim of the receptacle.

3.2.6 Should the cross-sectional area of a single nozzle mouth be greater than that of a circle 10 mm in diameter, the elevation of the lower edge of the nozzle mouth above the flood level rim of the receptacle shall be increased in direct proportion to the diameter of a circle equal in cross-sectional area to that of the nozzle orifice.

3.3 Water Supply Arrangement

3.3.1 The water supply to the jet shall be controlled by a self closing tap of nominal size, 15 mm, fixed at the right hand side of the connecting inlet pipe when viewed from the front. The self-closing tap shall conform to the requirements specified in IS : 1711-1971*.

3.3.2 The inlet feed pipe shall be fitted with an adjustable or automatic pressure regulating device capable of being locked into position, so that the self-closing tap operated by the users of the fountain will merely open or shut off water supply. The purchaser shall specify the water pressure to enable the manufacturer to supply the required pressure regulating device.

3.4 Waste Water Fitting

3.4.1 The drain shall be provided with a trap and shall terminate in a tail piece suitable for connecting to waste pipe. The purchaser shall specify whether the waste pipe is to be of lead or mild steel to enable the manufacturer to supply the required tail piece.

3.4.2 The waste opening and pipe shall be of sufficient size to carry off water promptly, the minimum diameter being not less than 25 mm exclusive of the flange. The opening shall be provided with a strainer or grating or cross bars formed integrally which shall be equivalent to a circle of 20 mm diameter.

---

*Specification for self-closing taps (*first revision*).

4. FINISH

4.1 All metal work shall be chromium plated over a base of nickel plating. The thicknesses of coatings shall comply with the requirements given in IS : 1068-1968*.

5. INSPECTION

5.1 Each drinking fountain shall be inspected for conformity to the requirements specified in this standard.

6. INFORMATION AND MARKING

6.1 When ordering drinking fountains, the purchaser shall supply the following information to the manufacturer:

a) Particulars or waste pipe for connection,

b) Tail piece, and

c) Water pressure.

6.2 BIS Certification Marking

The product may also be marked with Standard Mark.

6.2.1 The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

*Specification for electroplated coatings of nickel and chromium on iron and steel (*first revision*).

(*Continued from page 2*)

Members	*Representing*
SHRI S. R. KSHIRSAGAR	Central Public Health Engineering Research Institute (CSIR), Nagpur
SHRI V. RAMAN (*Alternate*)	
SHRI G. A. LUHAR	Bombay Metal & Alloys Mfg Co Pvt Ltd, Bombay
SHRI I. M. MAGDUM	Bangalore Water Supply & Sewerage Board, Bangalore
SHRI P. L. NANJUNDASWAMY (*Alternate*)	
SHRI P. S. NAZARE	Kirloskar Brothers Ltd, Kirloskarwadi
SHRI M. P. BHAT (*Alternate*)	
SHRI K. RAMACHANDRAN	Public Health Engineering Department, Government of Kerala
REPRESENTATIVE	Indo-Swedish Pipe Manufacturers Ltd, New Delhi
SHRI K. K. SEHGAL	Leader-Engineering Works, Jullundur City
SHRI D. K. SEHGAL (*Alternate*)	
SHRI J. N. SINGH	EMCO General Industries, Calcutta
SHRI R. K. SOMANY	Hindustan Sanitaryware Industries Ltd, Bahadurgarh
SHRI V. S. BHATT (*Alternate*)	
SHRI R. B. SUJAN	Engineer-in-Chief's Branch, Army Headquarters
SHRI B. R. N. GUPTA (*Alternate*)	
SURVEYOR OF WORKS II	Central Public Works Department

BUREAU OF INDIAN STANDARDS

Headquarters:
Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002
Telephones: 323 0131, 323 3375, 323 9402
Fax : 91 11 3234062, 91 11 3239399, 91 11 3239382

Telegrams : Manaksanstha
(Common to all Offices)

Central Laboratory:	Telephone
Plot No. 20/9, Site IV, Sahibabad Industrial Area, SAHIBABAD 201010	8-77 00 32
Regional Offices:	
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002	323 76 17
*Eastern : 1/14 CIT Scheme VII M, V.I.P. Road, Maniktola, CALCUTTA 700054	337 86 62
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	60 38 43
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	235 23 15
†Western : Manakalaya, E9 Behind Marol Telephone Exchange, Andheri (East), MUMBAI 400093	832 92 95
Branch Offices:	
'Pushpak', Nurmohamed Shaikh Marg, Khanpur, AHMEDABAD 380001	550 13 48
‡Peenya Industrial Area, 1st Stage, Bangalore-Tumkur Road, BANGALORE 560058	839 49 55
Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHOPAL 462003	55 40 21
Plot No. 62-63, Unit VI, Ganga Nagar, BHUBANESHWAR 751001	40 36 27
Kalaikathir Buildings, 670 Avinashi Road, COIMBATORE 641037	21 01 41
Plot No. 43, Sector 16 A, Mathura Road, FARIDABAD 121001	8-28 88 01
Savitri Complex, 116 G. T. Road, GHAZIABAD 201001	8-71 19 96
53/5 Ward No. 29, R. G. Barua Road, 5th By-lane, GUWAHATI 781003	54 11 37
5-8-58C, L. N. Gupta Marg, Nampally Station Road, HYDERABAD 500001	20 10 83
E-52, Chitaranjan Marg, C-Scheme, JAIPUR 302001	37 29 25
117/418 B, Sarvodaya Nagar, KANPUR 208005	21 68 76
Seth Bhawan, 2nd Floor, Behind Leela Cinema, Naval Kishore Road, LUCKNOW 226001	23 89 23
Patliputra Industrial Estate, PATNA 800013	26 23 05
T. C. No. 14/1421, University P. O. Palayam, THIRUVANANTHAPURAM 695034	6 21 17
NIT Building, Second Floor, Gokulpat Market, NAGPUR 440010	52 51 71
Institution of Engineers (India) Building, 1332 Shivaji Nagar, PUNE 411005	32 36 35

*Sales Office is at 5 Chowringhee Approach, P. O. Princep Street, CALCUTTA 700072 — 27 10 85

†Sales Office is at Novelty Chambers, Grant Road, MUMBAI 400007 — 309 65 28

‡Sales Office is at 'F' Block, Unity Building, Narashimaraja Square, BANGALORE 560002 — 222 39 71

Printed at New India Printing Press, Khurja, India