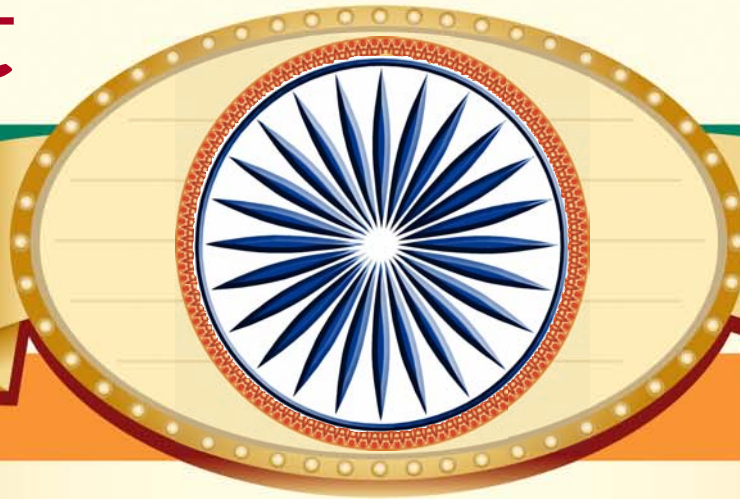


# इंटरनेट

# मानक



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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.

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Mazdoor Kisan Shakti Sangathan

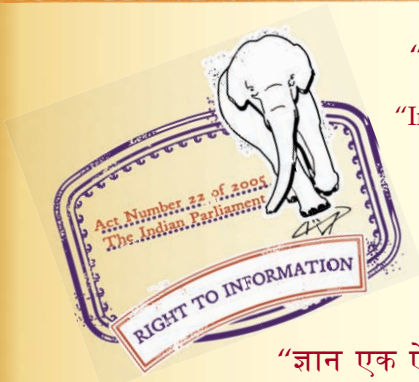
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“Step Out From the Old to the New”

IS 2556-4 (2004): Vitreous Sanitary Appliances (Vitreous China) - - Part 4: Specific Requirements of Wash Basins  
[CED 3: Sanitary Appliances and Water Fittings]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”





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**भारतीय मानक**  
**काँचाभ स्वच्छता साधित्र**  
**(काँचाभ चीनी मिट्टी) - विशिष्ट**  
**भाग 4 वॉश बेसिन के लिए विशिष्ट अपेक्षाएँ**  
**( चौथा पुनरीक्षण )**

*Indian Standard*

**VITREOUS SANITARY APPLIANCES**  
**(VITREOUS CHINA) — SPECIFICATION**

PART 4 SPECIFIC REQUIREMENTS OF WASH BASINS

*( Fourth Revision )*

ICS 91.140.70

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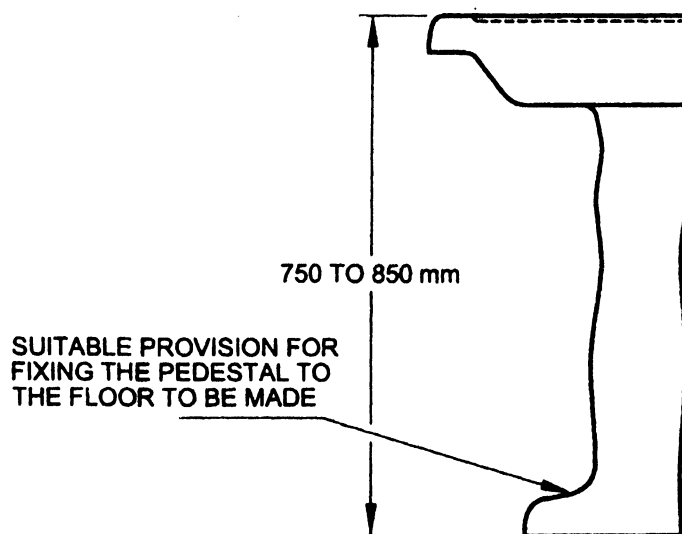
**AMENDMENT NO. 1 OCTOBER 2008**  
**TO**  
**IS 2556 (PART 4) : 2004 VITREOUS SANITARY**  
**APPLIANCES (VITREOUS CHINA) — SPECIFICATION**

**PART 4 SPECIFIC REQUIREMENTS OF WASH BASINS**

*( Fourth Revision )*

*(Page 5, clause 6.5, second para, line 3) — Substitute '9.5 ± 0.5 l/min' for '9.5 l/min'.*

*(Page 6, Fig 7) — Substitute the following for the existing figure:*



**FIG. 7 PEDESTAL FOR WASH BASIN**

**(CED 3)**

**AMENDMENT NO. 2 DECEMBER 2008**  
**TO**  
**IS 2556 (PART 4) : 2004 VITREOUS SANITARY**  
**APPLIANCES (VITREOUS CHINA) —**  
**SPECIFICATION**

**PART 4 SPECIFIC REQUIREMENTS OF WASH BASINS**

*( Fourth Revision )*

*(Page 1, clause 2) — Delete the following:*

‘IS 775 : 1970	Specification for cast iron brackets and supports for wash basins and sinks ( <i>second revision</i> )’.
----------------	--

*(Page 5, clause 6.4.1, line 3) — Delete ‘(see IS 775)’.*

(CED 3)

## FOREWORD

This Indian Standard (Part 4) (Fourth Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Sanitary Appliances and Water Fittings Sectional Committee had been approved by the Civil Engineering Division Council.

This standard was first published in 1963. The first, second and third revisions were issued in 1967, 1972 and 1994 respectively. In this revision, load bearing test and overflow test have been included. Other changes, keeping in view the current manufacturing practices in the country, have been made.

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 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard*

**VITREOUS SANITARY APPLIANCES  
(VITREOUS CHINA) — SPECIFICATION**

**PART 4 SPECIFIC REQUIREMENTS OF WASH BASINS**

*( Fourth Revision )*

**1 SCOPE**

This standard (Part 4) covers the requirements, patterns and sizes, dimensions and tolerances, construction, finish, sampling and marking provisions for vitreous wash basins.

**2 REFERENCES**

The following Indian Standards contain provisions which through reference in this text constitute provisions of this standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
775 : 1970	Specification for cast iron brackets and supports for wash basins and sinks ( <i>second revision</i> )
1795 : 1982	Specification for pillar taps for water supply purposes ( <i>second revision</i> )
2556 (Part 1) : 1994	Vitreous sanitary appliances (vitreous china)—Specification : Part 1 General requirements ( <i>third revision</i> )
2963 : 1979	Specification for copper alloy waste fittings for wash basins and sinks ( <i>first revision</i> )
8931 : 1993	Specification for copper alloy fancy single taps, combination tap assembly and stop valves for water services ( <i>first revision</i> )
9140 : 1985	Method of sampling of vitreous and fire clay sanitary appliances (vitreous china) ( <i>first revision</i> )

**3 GENERAL REQUIREMENTS**

The general requirements relating to terminology, materials, manufacture, glazing, defects, minimum thickness, tolerances, performance and methods of tests shall conform to IS 2556 (Part 1).

**4 PATTERNS AND SIZES**

**4.1** The patterns and sizes of wash basins shall conform to Table 1.

**Table 1 Patterns and Sizes**  
All dimensions in millimetres.

<b>Sl No.</b>	<b>Pattern</b>	<b>Size</b>
(1)	(2)	(3)
i)	Flat back	660 × 460 (Surgeon's basin) 630 × 450 550 × 400 450 × 300
ii)	Angle back	600 × 480 400 × 400

**4.2** Wash basins may be made in other patterns and sizes where so agreed to between the manufacturer and the purchaser. However, except for functional dimensions all other requirements as laid down in this standard shall be complied with.

**5 DIMENSIONS AND TOLERANCES**

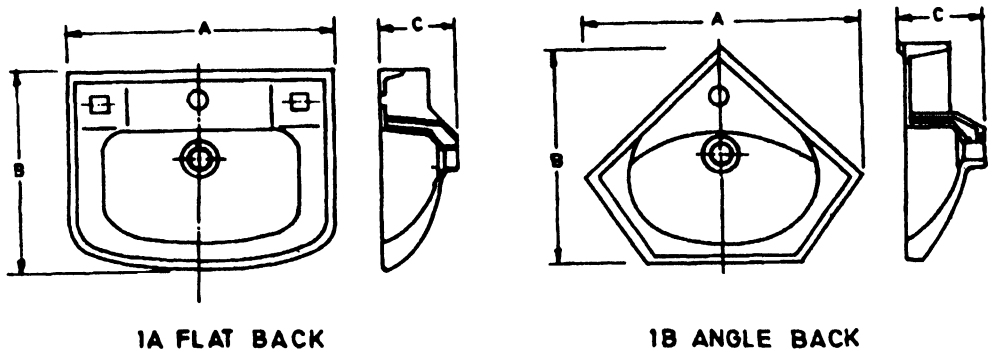
**5.1 Functional Dimensions**

The functional dimensions of wash basins shall conform to those given in Table 2 read with Fig. 1A and Fig. 1B.

**Table 2 Functional Dimensions of Wash Basins**  
(Clauses 5.1 and 6.4.1)  
All dimensions in millimetres.

<b>Sl No.</b>	<b>Pattern</b>	<b>Size</b>	<b>Length A</b>	<b>Breadth B</b>	<b>Height C</b>
(1)	(2)	(3)	(4)	(5)	(6)
i)	Flat back	660 × 460 (Surgeon's basin) 630 × 450 550 × 400 450 × 300	660 630 550 450	460 450 400 300	200, <i>Min</i> 290, <i>Max</i> 290, <i>Max</i> 225, <i>Max</i>
ii)	Angle back	600 × 480 400 × 400	600 400	480 400	290, <i>Max</i> 290, <i>Max</i>





All dimensions in millimetres.

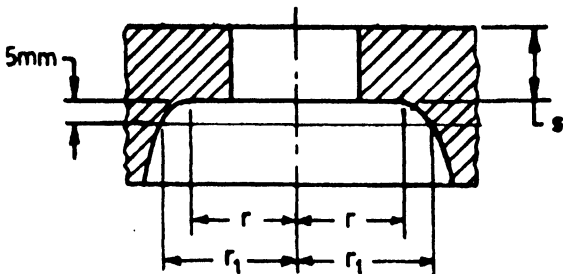
FIG. 1 FUNCTIONAL DIMENSIONS OF WASH BASIN — TYPICAL SKETCHES

5.2 Connecting Dimensions

5.2.1 The connecting dimensions are critical for plumbing applications and these shall be strictly complied with irrespective of the pattern and design.

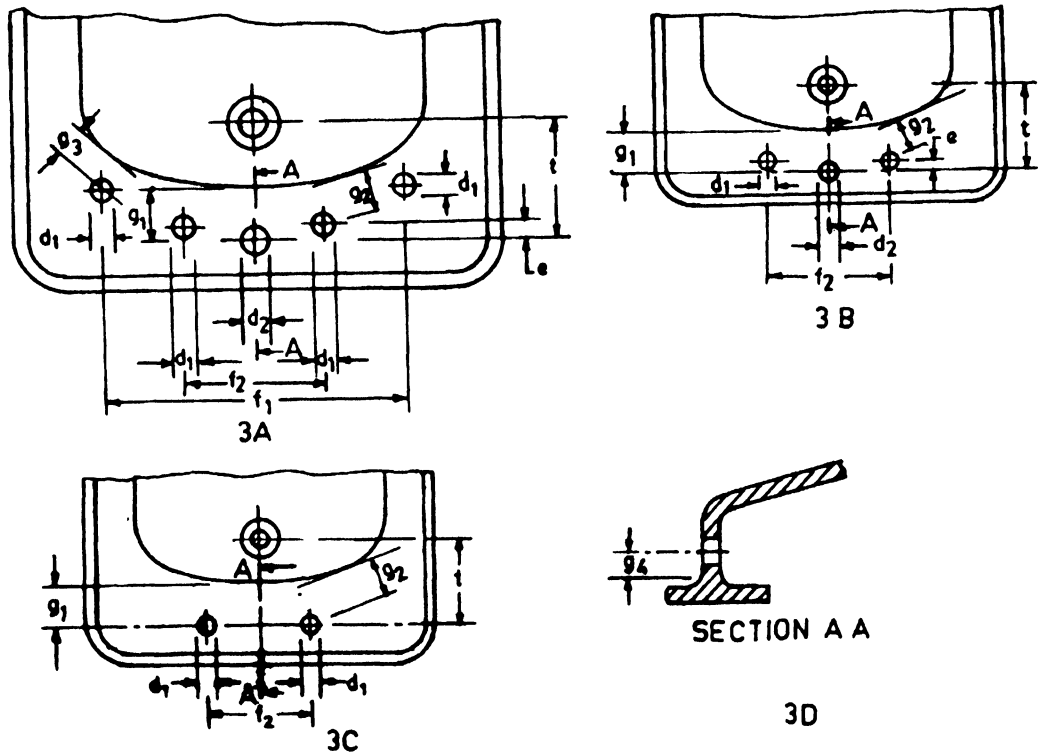
5.2.2 Connecting dimensions for wash basins with five, three and two tap hole set shall conform to Table 3 read with Fig. 2 and Fig. 3.

5.2.3 Connecting dimensions for wash basins with single tap hole shall conform to Table 4 read with Fig. 2 and Fig. 4.



All dimensions in millimetres.

FIG. 2 DETAILS OF TAP FITTING HOLE  
(AS MEASURED AFTER THE HOLES PUNCHED)



All dimensions in millimetres.

FIG. 3 CONNECTING DIMENSIONS OF WASH BASINS WITH FIVE, THREE AND TWO TAP HOLES

**Table 3 Connecting Dimensions for Wash Basin with Five, Three and Two Tap Hole Set**  
(Clause 5.2.2)

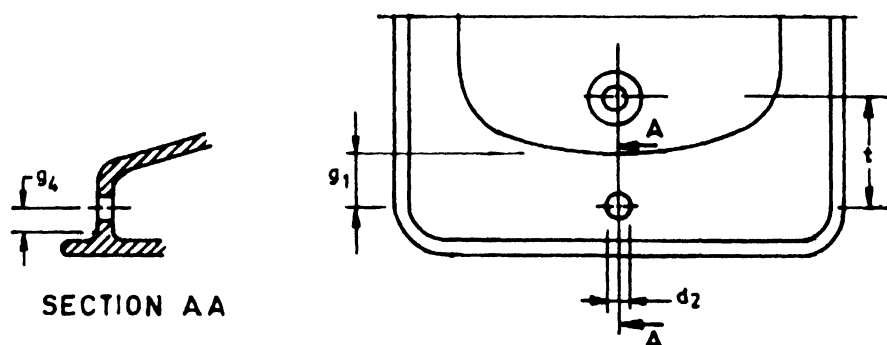
All dimensions in millimetres.

Sl No. (1)	Description (2)	Ref in Fig. 2 and Fig. 3 (3)	Dimensions (4)
i)	Diameter of outer tap holes	$d_1$	$30^{+2}_{-0}$
ii)	Diameter of central tap hole	$d_2$	$35^{+2}_{-1}$
iii)	Distance from vertical planes passing through the centre line of the central tap hole and the centre line of the outer (adjacent) tap holes	$e$	0 to 15
iv)	Distance between the centre lines of the two outer (distant) tap holes:	$f_1$	
	a) For size 630 × 450		480
	b) For size 550 × 400		400
v)	Distance between the centre lines of the two adjacent outer tap holes	$f_2$	$200^{+4}_{-4}$
vi)	Horizontal distance between centre line of the central tap hole and the edge of the bowl	$g_1$	80, <i>Max</i>
vii)	Horizontal distance between centre line of a distant hole and the edge of the bowl	$g_2, g_3$	65, <i>Max</i>
viii)	a) Distance from wall or inside of skirting (where provided) and centre line of central tap hole	$g_4$	32, <i>Min</i>
	b) Distance from wall (where skirting is not provided) and centre of tap hole	$g_4$	40, <i>Min</i>
ix)	Radius of a cylinder with the same axis as the fitting hole which permits the following free space below the inside edge of the tap fitting hole:		
	a) Of 0 to 5 mm height	$r$	25, <i>Min</i>
	b) Of 5 mm and more height	$r_1$	30, <i>Min</i>
x)	Wall thickness in the zone of the tap fitting hole	$s$	18, <i>Max</i>
xi)	Horizontal distance between the axis of the central tap hole to the axis of the waste outlet opening	$t$	170, <i>Max</i>

**NOTES**

1 Dimension 'r' is not applicable for angle back wash basin and 450 mm × 300 mm wash basin.

2 Dimension  $f_2$  is not applicable for 450 mm × 300 mm wash basin.



All dimensions in millimetres.

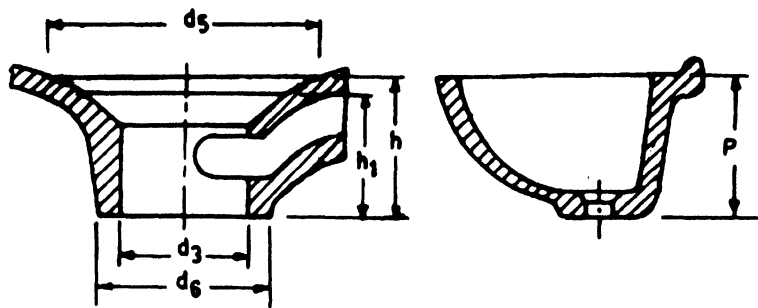
**FIG. 4 CONNECTING DIMENSIONS FOR SINGLE TAP HOLE WASH BASINS**  
**Table 4 Connecting Dimensions for Wash Basins with Centre Tap Hole**  
(Clause 5.2.3)

All dimensions in millimetres.

Sl No. (1)	Description (2)	Ref in Fig. 2 and Fig. 4 (3)	Dimensions (4)
i)	Diameter of tap hole	$d_2$	$35^{+2}_{-1}$
ii)	Horizontal distance between centre line of tap hole and edge of bowl	$g_1$	80, <i>Max</i>
iii)	a) Distance from wall or inside of skirting (where provided) and centre line of tap hole	$g_4$	32, <i>Min</i>
	b) Distance from wall (where skirting is not provided) and center of tap hole	$g_4$	40, <i>Min</i>
iv)	Radius of a cylinder with the same axis as the fitting hole which permits the following free space below the inside edge of the tap fitting hole:		
	a) Of 0 to 5 mm height	$r$	25, <i>Min</i>
	b) Of 5 mm and more height	$r_1$	30, <i>Min</i>
v)	Wall thickness in the zone of the tap fitting hole	$s$	18, <i>Max</i>
vi)	Horizontal distance between the axis of the tap hole to the axis of waste outlet opening	$t$	170, <i>Max</i>

NOTE — Dimension 'r' is not applicable for angle back wash basin and 450 mm × 300 mm wash basin.

5.2.4 Dimensions of waste outlet hole shall conform to those given in Table 5 read with Fig. 5.



All dimensions in millimetres.

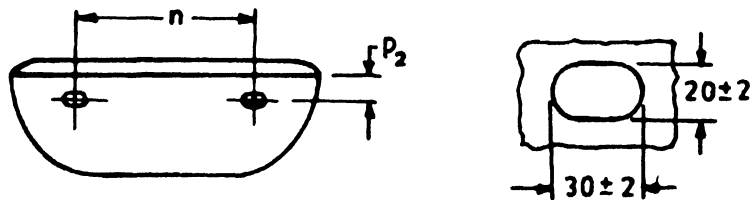
FIG. 5 DIMENSIONS OF WASTE OUTLET HOLE

Table 5 Dimensions of Waste Outlet Hole  
(Clause 5.2.4)

All dimensions in millimetres.

Sl No.	Description	Ref in Fig. 5	Dimensions
(1)	(2)	(3)	(4)
i)	Diameter of waste outlet opening	$d_3$	$46^{+2}_{-3}$
ii)	Maximum diameter at the bevelled portion of the waste outlet opening	$d_5$	75, Max
iii)	Outside diameter of the seating face of the waste outlet opening	$d_6$	60, Min
iv)	Depth of outlet for wash basin with integral overflow	$h$	45, Min 50, Max
v)	Vertical distance between the tap platform and the lower plane of the waste outlet hole	$P$	250, Max

5.2.5 Fixing (mounting) dimensions for wall hung basin shall conform to Table 6, read with Fig. 6.



All dimensions in millimetres.

FIG. 6 FIXING DIMENSIONS FOR WALL HUNG WASH BASINS

Table 6 Fixing Dimensions for Wall Hung Wash Basin  
(Clauses 5.2.5 and 6.4.3)

All dimensions in millimetres.

Sl No.	Description	Ref in Fig. 6	Size of Wash Basin	Dimensions
(1)	(2)	(3)	(4)	(5)
i)	Horizontal distance between the axis of two fixing holes	$n$	a) Up to and including 550 × 400 b) Above 550 × 400	240 ± 10 280 ± 10
ii)	Vertical distance between the centre lines of the fixing holes and the tap platform	$P_2$	All size of flat back wash basins (except 450 × 300) and angle back wash basin	40, Min 72, Max

5.3 Tolerances

Where tolerances are not given for specific dimensions, these shall be in accordance with IS 2556 (Part 1).

6 CONSTRUCTION

6.1 The wash basin shall be of one piece construction with/without a combined overflow (see 6.5) and soap

holder(s) (see 6.6). All internal angles shall be such as to facilitate easy cleaning.

**6.1.1** Wash basin for use in surgeon's room and operation theatre shall not be provided with soap holder recess and combined overflow.

## 6.2 Tap Holes

Wash basins shall be provided with five, three, two or single tap hole, round in shape and symmetrical about the centre line of the basin and either fully punched or semi-punched. The tap holes shall be suitable for fixing pillar taps conforming to IS 1795 or to IS 8931. The level of the top of the platform which accommodates the taps shall not be below the spillover level of the basin irrespective of the overflow arrangement. For angle back basin, provision shall be made for one or two tap holes in any suitable position in accordance with the design of the manufacturer.

## 6.3 Waste Hole

Each basin shall have a circular waste hole of dimension as per the details given in 5.2.4. The waste hole shall accommodate a waste fitting having a flange diameter of 64 mm (see IS 2963).

## 6.4 Fixing Arrangements

### 6.4.1 Bracket Stud

Any provision to receive the brackets on the underside of the wash basin shall be capable for receiving a bracket stud (see IS 775) not exceeding 13 mm in diameter, 8 mm high and 305 mm from the back of the basin to the centre of the stud. Horizontal distance between two stud provisions shall be  $A-50$  mm, where  $A$  is length in mm of wash basin (see Table 2).

### 6.4.2 Screw Fixing

For flat back wash basins of size up to 450 mm × 300 mm and of angle back wash basins of size up to 400 mm × 400 mm, screw-fixing holes (minimum two) shall be provided at a suitable distance and location. The screwing hole diameter shall be 6.5 mm minimum.

### 6.4.3 Rag Bolt

Additional/alternate provision for fixing the wash basin on rag bolts may be provided at the back of the basin and shall not be visible from outside when installed in its normal position. The rag bolt holes shall be of dimensions given in Table 6, suitable for a minimum M8 size bolt.

## 6.5 Overflow

An overflow slot, if provided, shall have a horizontal dimension not larger than 64 mm and an area not less than 500 mm<sup>2</sup>. A round overflow of the same area can be an alternate design.

The wash basins shall be installed in a stand with a pop up waste fitting. The rate of water supply shall be adjusted to 9.5 l/min. The waste outlet shall be closed. The elapsed time from the onset of water flowing into the overflow of opening until the water begins to overflow the flood level shall be measured. The fixture shall drain for 5 min without overflowing.

## 6.6 Soap Recess(es)

The soap recess(es) shall have adequate provision for draining into the bowl.

## 6.7 Load Bearing Test

The wall hung wash basins of 500 mm and above length shall be installed on rag bolts or brackets. A load of  $110 \pm 5$  kg or a force of  $1.1 \pm 0.05$  kN shall be applied for a period of 1 h by placing it on a wooden beam with a cross-section of 100 mm × 100 mm positioned across the centre of the opening of the top surface of the wash basin. No damage or defect shall occur to the wash basin and the fastenings.

## 6.8 Chain Stay Hole

The chain stay hole, where provided shall be 10 mm diameter and shall be completely above the level of the top of the overflow hole/slot.

## 6.9 Pedestal

Glazed pedestals for wash basins, if required by the purchaser, shall be supplied. The quality and thickness of the ware and the quality of the glaze of the pedestals shall not be less than that of the basins with which it is to be installed. They shall be suitably recessed at the back for the reception of supply and waste pipe and fittings. They shall be so constructed as to support the basins rigidly and adequately and shall be so designed as to make the height from the floor to top of the rim of basin between 750 to 850 mm (see Fig. 7).

## 7 FINISH

Inside surface of wash basins shall be glazed uniform and smooth in order to ensure efficient draining.

## 8 SAMPLING PROCESS, INSPECTION AND LOT INSPECTION

The recommended method of sampling, process inspection and lot inspection of wash basins shall be given in IS 9140.

## 9 MARKING

**9.1** Wash basins shall be clearly and indelibly marked at a suitable place with the following:

- a) Name or trade-mark of the manufacturer, and
- b) Batch/lot number or date of manufacture.

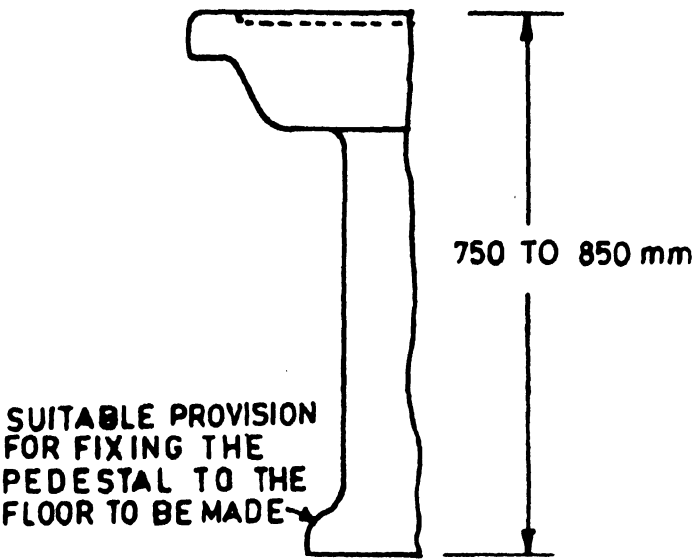


FIG. 7 PEDESTAL FOR WASH BASIN

**9.2 BIS Certification Marking**

Wash basin may also be marked with the Standard Mark.

**9.2.1** The use of the Standard Mark is governed by the

provisions of *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

### BUREAU OF INDIAN STANDARDS

#### Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002  
Telephones : 2323 0131, 2323 33 75, 2323 9402

Telegrams : Manaksanstha  
(Common to all offices)

#### Regional Offices :

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