कटि स्नान के टब — विशिष्टि

IS XXXXX : 2024

Hip Bath Tub — Specification

ICS 11.120.10

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FOREWORD

Naturopathy is a form of medicine that employs therapeutic qualities of natural resources namely soil, water, sunlight, air, space (emptiness), diet, rest and exercise enabling the body to heal itself. It is helpful in treating and preventing diseases as well as in promoting overall well-being. The therapeutic techniques involved in naturopathy are based on the customs and culture of the Indian sub-continent documented in the *Upanishads*, *Purāṇās* and other ancient Indian Scriptures.

A branch of naturopathy, Hydrotherapy (or) Water-therapy involves external and internal therapeutic application of water in any of its three states namely ice, water or steam for addressing and averting illness while fostering holistic health.

Hip Bath is a water-based therapy where the patient or healthseeker is made to sit in reclined posture in a specially designed tub so that only the abdomen and hip are immersed in water at desired temperature. Hip bath is most useful in treating constipation, hyperacidity, digestive disorders, gynecological ailments etc.

This bath is taken in a specially designed tub. Generally, water at desired temperature is filled in the tub and the patient or health seeker is made to sit in the tub reclined backwards with feet outside the tub on a foot-rest. Water at different temperatures is used as per the requirement.

As the available Hip Bath Tubs in the market are neither standardized nor of the assured quality, there is a need for the standardization of Hip Bath Tub for quality and safety and advantage of the users and other stakeholders.

This document is the Standard Document stipulating the standardized specifications of Hip Bath Tub.

The inputs for formulation of this standard have been derived from the information available in the public domain in print and electronic media including authoritative books of Naturopathy and related Indian and international standards. Technical inputs from subject matter experts have also been used to formulate the standard.

CAUTION — The treatment should be given under the supervision of a naturopathy physician by a naturopathy therapist.

The composition of the committee responsible for the formulation of this standard is given in Annex A.

IndianStandard

HIP BATH TUB — SPECIFICATION

1 SCOPE

This standard specifies the dimensional specifications of hip bath tub. Each Hip Bath Tub comprises of three components – (a) Tub (b) Stand and (c) Foot-rest.

This Indian Standard covers minimum requirements and dimensional details for a hip bath tub made of gelcoated glass fibre reinforced polyester resin or heavy-duty fiberglass [glass reinforced plastic (GRP) or fibre reinforced plastic (FRP)] or polyurethane foam (PUF) filled fibre or Fiberglass resin or Acrylic or any other suitable material(s).

2 REFERENCES

The standards given below contains provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated was 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.

IS No.	Title
1S 4033 : 1968	General requirements for hospital furniture
AYD 3 (24752)	Glossary of naturopathy terminology

3TERMINOLOGY

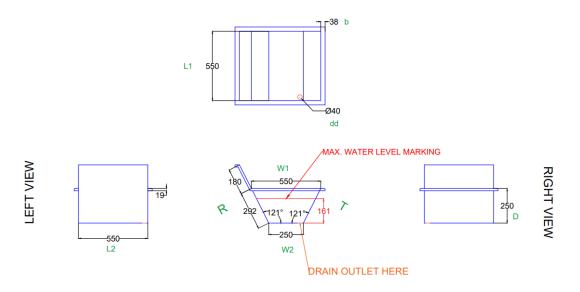
For the purpose of this standard, the definitions given in Doc No. — AYD 3 (24752) shall apply.

4MATERIALS

The materials from which the hip bath tub is made shall not have undesirable effects on the patient.

Table 1 Requirements for Hip Bath Tub (Small - S)(Clause 4.1)

Sl No.	Characteristics	Requirements	Tolerance
(1)	(2)	(3)	(4)
i)	Length at top (L1)	550 mm	± 5 mm
ii)	Width at top (W1)	550 mm	± 5 mm
iii)	Length at bottom (L2)	550 mm	\pm 5 mm
iv)	Width at bottom (W2)	250 mm	$\pm 3 \text{ mm}$
v)	Depth (D)	250 mm	$\pm 3 \text{ mm}$
vi)	Reclining Surface (R) length	472 mm	± 5 mm
vii)	Thigh-rest (T) length	292 mm	$\pm 3 \text{ mm}$
viii)	Rim (b)	38 mm	$\pm 1 \text{ mm}$
ix)	Drain diameter (dd)	40 mm	$\pm 1 \text{ mm}$
x)	Maximum water level (marking)	161 mm	$\pm 2 \text{ mm}$
xi)	Weight of spinal bath tub	As per agreement between manufacturer and purchaser	
xii)	Height of the stand	356 mm	\pm 3 mm
xiii)	Gradient (along length) at base	10 mm	$\pm 0.5 \text{ mm}$
xiv)	Gradient (along breadth) at base	10 mm	$\pm 0.5 \text{ mm}$
xv)	Foot-rest	$360~\text{mm} \times 240\text{mm} \times 160$	\pm 3 mm \times \pm 2 mm \times \pm 1
		mm (length \times width \times	mm
		height)	$(length \times width \times height)$
xvi)	Foot-rest gradient	60 mm	± 1 mm



FRONT VIEW

All dimensions in millimetres.

FIG. 1 (A) DIAGRAMMATIC SHAPE OF TUB (SMALL - S)

TOP VIEW

FRAME - SS 304 (SQUARE PIPE - 25 mm; THICKNESS - 1.2 mm) HANDLE - SS 304 (ROUND PIPE - Ø25 mm; THICKNESS 1.2 mm) CUSHIONED CALF-REST

10 (GRADIENT)

FRONT VIEW

10 (GRADIENT)

-BASE - SS 304 (SQUARE PIPE - 25 mm; THICKNESS - 1.2 mm) 10 mm GRADIENTS TOWARD DRAIN OUTLET - ALONG LENGTH & BREADTH

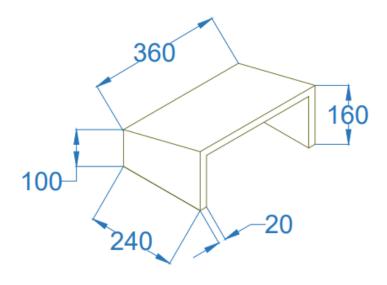
10 (GRADIENT)

RIGHT VIEW

All dimensions in millimetres.

FIG. 1 (B) DIAGRAMMATIC SHAPE OF STAND (SMALL - S)

ISOMETRIC VIEW



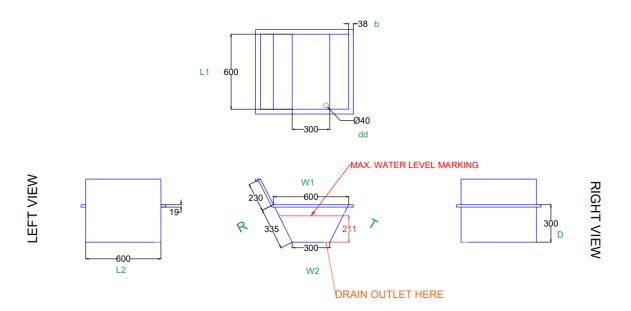
All dimensions in millimetres

Fig. 1 (C) Diagrammatic Shape Of Foot-Rest (Small - S)

Table 2 Requirements for Hip Bath Tub (Medium - \mathbf{M})

 $(Clause\ 4.2)$

Sl No.	Characteristics	Requirements	Tolerance
(1)	(2)	(3)	(4)
i)	Length at top (L1)	600 mm	\pm 5 mm
ii)	Width at top (W1)	600 mm	± 5 mm
iii)	Length at bottom (L2)	600 mm	± 5 mm
iv)	Width at bottom (W2)	300 mm	$\pm 3 \text{ mm}$
v)	Depth (D)	300 mm	\pm 3 mm
vi)	Reclining Surface (R) length	565 mm	\pm 5 mm
vii)	Thigh-rest (T) length	335 mm	$\pm 3 \text{ mm}$
viii)	Rim (b)	38 mm	± 1 mm
ix)	Drain diameter (dd)	40 mm	$\pm 1 \text{ mm}$
x)	Maximum water level (marking)	211 mm	$\pm 2 \text{ mm}$
xi)	Weight of spinal bath tub	As per agreement between manufacturer and purchaser	
xii)	Height of the stand	406 mm	$\pm 3 \text{ mm}$
xiii)	Gradient (along length) at base	10 mm	$\pm 0.5 \text{ mm}$
xiv)	Gradient (along breadth) at base	10 mm	$\pm 0.5 \text{ mm}$
xv)	Foot-rest	$360 \text{ mm} \times 240 \text{ mm} \times 160$	$\pm 3 \text{ mm} \times \pm 2 \text{ mm} \times \pm 1$
		mm (length \times width \times	mm
		height)	$(length \times width \times height)$
xvi)	Foot-rest gradient	60 mm	± 1 mm

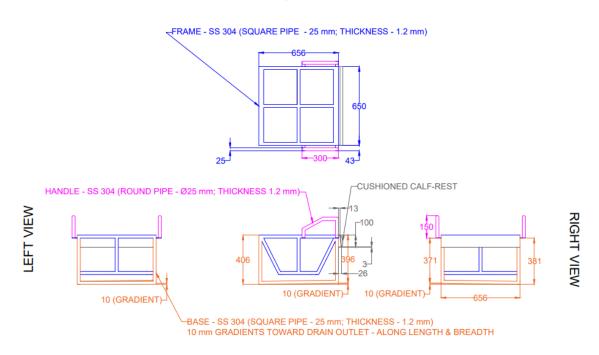


FRONT VIEW

All dimensions in millimetres.

FIG. 2 (A) DIAGRAMMATIC SHAPE OF TUB (MEDIUM - M)

TOP VIEW

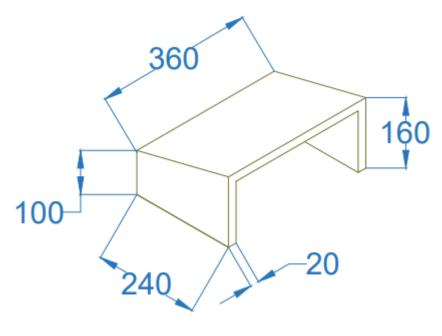


FRONT VIEW

All dimensions in millimetres.

Fig. 2 (B) Diagrammatic Shape Of Stand (Medium - M)

ISOMETRIC VIEW



All dimensions in millimetres.

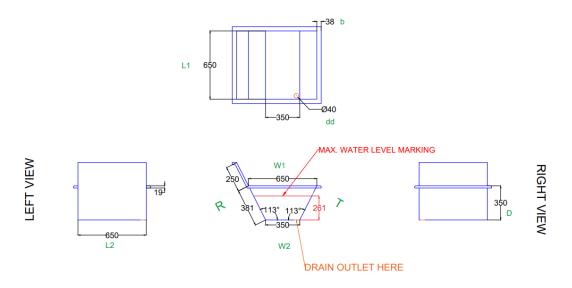
Fig. 2 (C) Diagrammatic Shape Of Foot-Rest (Medium - M)

Table 3 Requirements for Hip Bath Tub (Large - $L)\,$

(*Clause 4.3*)

Sl No.	Characteristics	Requirements	Tolerance
(1)	(2)	(3)	(4)
i)	Length at top (L1)	650 mm	± 5 mm
ii)	Width at top (W1)	650 mm	\pm 5 mm
iii)	Length at bottom (L2)	650 mm	\pm 5 mm
iv)	Width at bottom (W2)	350 mm	$\pm 3 \text{ mm}$
v)	Depth (D)	350 mm	$\pm 3 \text{ mm}$
vi)	Reclining Surface (R) length	631 mm	\pm 5 mm
vii)	Thigh-rest (T) length	381 mm	$\pm 3 \text{ mm}$
viii)	Rim (b)	38 mm	$\pm 1 \text{ mm}$
ix)	Drain diameter (dd)	40 mm	$\pm 1 \text{ mm}$
x)	Maximum water level (marking)	mm	$\pm 2 \text{ mm}$
xi)	Weight of spinal bath tub	As per agreement between manufacturer and purchaser	
xii)	Height of the stand	261 mm	$\pm 3 \text{ mm}$
xiii)	Gradient (along length) at base	10 mm	$\pm 0.5 \text{ mm}$
xiv)	Gradient (along breadth) at base	10 mm	$\pm 0.5 \text{ mm}$
xv)	Foot-rest	$360 \text{ mm} \times 300 \text{ mm} \times 140$	\pm 3 mm \times \pm 3 mm \times \pm 1
		mm (length \times width \times	mm
		height)	$(length \times width \times height)$
xvi)	Foot-rest gradient	60 mm	± 1 mm

TOP VIEW

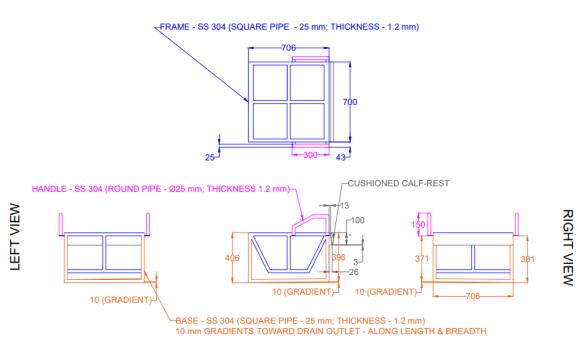


FRONT VIEW

All dimensions in millimetres.

FIG. 3 (A) DIAGRAMMATIC SHAPE OF TUB (LARGE – L)

TOP VIEW

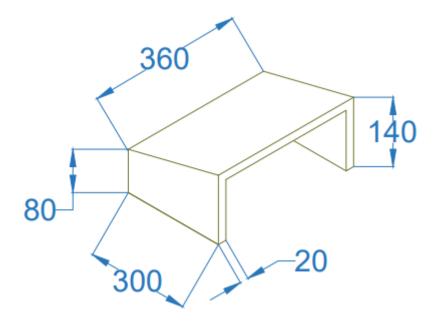


FRONT VIEW

All dimensions in millimetres.

FIG. 3 (B) DIAGRAMMATIC SHAPE OF STAND (LARGE – L)

ISOMETRIC VIEW



All dimensions in millimetres.

FIG. 3 (C) DIAGRAMMATIC SHAPE OF FOOT-REST (LARGE – L)

5 DIMENSIONS

- **5.1** The Hip bath tub shall conform to the requirements of Table 1, Table 2 and Table 3.
- 5.2 The hip bath tub shall be leak proof. The slopes of the hip bath tub may allow a tolerance of $\pm 2^{\circ}$.
- **5.3** The weight of the Spinal Bath Tub shall be as per the agreement between the manufacturer and purchaser.

6 WORKMANSHIP AND FINISH

The hip bath tubs shall be free from cracks, crazing, pinholes, porosity, blisters, chipped areas or moulding defects that may affect their appearance and serviceability. There shall be no readily visible wrinkles in any area.

7 CONSTRUCTION

7.1 Body

Each hip bath tub shall be one piece unit with an opening for drain outlet with floor sloping towards the outlet. An apron (side panel) may be provided integrally or separately with the bath tub.

7.2 Stand/Mounting

The material used for the stand of the hip bath tub shall be at least similar to the material of the bath tub in resistance to deterioration with age.

7.3 Effectiveness of Support

When the hip bath tub is installed in the supporting stand/structure, there shall be no permanent deformation of the bath tub or its supporting structure and no cracking or crazing of the hip bath tub.

- **7.4** For the safety of users, hip bath tubs shall be as flat-bottomed as practicable. When placed on the supporting structure, the gradient towards the outlet shall be adequate for complete emptying.
- **7.5** The drain outlet shall be so formed as to be suitable for receiving a 40 mm waste fitting.

8 PERFORMANCE REQUIREMENTS AND TESTS

- **8.1** Testing and performance assessment may be performed as per the procedures prescribed in Indian and/or international standard(s) for respective material(s) with which the hip bath tub is fabricated.
- **8.2** Some of the parameters which may be tested are Impact resistance, hardness, cracking or crazing, water absorption, resistance to boiling water, resistance to hydrochloric acid, tensile strength of laminate, washability, loading capacity of rim and stand, load on unsupported areas, loading capacity of foot-rest etc.

9 MARKING

- **9.1** The size of the hip bath tub and name and trade-mark of the manufacturer shall be clearly marked by stamping and labeling in a prominent place. The usable life of hip bath tub, hip bathtub stand and foot-rest should also be mentioned on the tub and should be clearly visible.
- 9.2 Each hip bath tub shall comply with the provisions of clause 7.1 of IS 4033 and shall be marked with:
 - a) Manufacturer's name/trademark;
 - b) Name and address of the manufacturer;
 - c) Name and address of the marketer;
 - d) Month and year of manufacture;
 - e) Unique device identification/serial number; and

9.3 BIS CERTIFICATION MARKING

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

NOTE — The use of the BIS Certification Mark is governed by the provisions of the *Bureau of Indian Standards (Certification Marks)* Act and the Rules and Regulations made thereunder. The BIS 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 BIS and operated by the producer. BIS marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a License for the use of the BIS Certification Mark may be granted to manufacturers or processors, may be obtained from the Bureau of Indian Standards.

10 MANUFACTURER'S INSTRUCTIONS

The manufacturer shall furnish with each hip bath tub, suitable instruction for cleaning and maintenance of hip bath tubs.

11 PACKING

The Hip bath tub shall be packed in a case made of a suitable material in such a way that they are intact in the case. It shall be so designed that when the Hip Bath Tub is kept in position and the lid is closed, there shall be no rattling inside the case.