
भारतीय मानक मसौदा
क्षारसूत्र कैबिनेट - विशिष्टि

Draft Indian Standard
Ksharasutra Cabinet – Specification
ICS 11.120.10

Ayurveda Sectional Committee, AYD 01 **Last Date of Comments:** 16 December 2024

FOREWORD

(Formal Clause would be added later)

Ksharasutra therapy is a unique Ayurvedic treatment primarily used for managing fistula-in-ano and other anorectal disorders such as hemorrhoids and pilonidal sinus. This therapy, documented in ancient Ayurvedic texts, involves the use of a medicated thread (*Ksharasutra*) that combines the properties of herbal medicines with mechanical action to treat conditions non-surgically. *Ksharasutra* therapy is a minimally invasive procedure that reduces the need for extensive surgery, thus lowering the risk of complications and promoting quicker recovery. The medicated thread used in *Ksharasutra* therapy has been shown to promote effective drainage and healing of fistulous tracts and abscesses, minimizing the chances of recurrence.

Ksharasutra therapy involves the use of a medicated thread, which is prepared by coating a thread with a special herbal formulation. The effectiveness of *Ksharasutra* therapy significantly depends on the quality and standards of the *Ksharasutra* thread used in the therapy. The preparation of this thread involves a thorough process to ensure its medicinal properties and safety.

A *Ksharasutra* cabinet is an essential component that serves as a dedicated storage and preparation area, ensuring the threads are maintained under optimal conditions to preserve their medicinal properties. The cabinet provides a sterile environment for the preparation and storage of the medicated threads. This helps prevent contamination and infection during the treatment process.

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 : 2022 ‘Rules for rounding off numerical values (second revision)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Draft Indian Standard

Ksharasutra Cabinet– Specification

1 SCOPE

This Indian standard covers constructional, performance and safety requirements for a *Ksharasutra* cabinet.

2 REFERENCES

The standards listed below 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 edition of these standards.

IS 302 (Part 1) : 2024 IEC 60335-1	Safety of household and similar electrical appliances: Part 1 general requirements (Sixth Revision)
IS 18687:2024	Germicidal UV-C Irradiation Devices — Safety Requirements
Doc No. AYD/01/24024	<i>Ksharasutra</i> - Specification

3 DEFINITIONS

For the purpose of this standard, following definitions in addition to those given in Clause 3 of Doc No. AYD/01/24024 apply.

3.1 *Ksharasutra* Cabinet

An equipment or a device designed for drying and sterilization of *Ksharasutra*.

3.2 Hangers

Rectangular frames used in cabinet for hanging *Ksharasutra*.

4 MATERIALS

4.1 The Cabinet Body, Hangers and Rods shall be made up of Stainless Steel 304.

4.2 The cabinet body shall have white oven baked, epoxy polyester powder coated finish.

5 CONSTRUCTION

5.1 Cabinet Body

5.1.1 Vertical body with full opening door, air lock mechanism, fitted with lock and key and self-lit interiors.

NOTE - Dimension of cabinet may be as per the requirement, however, universal dimension of 3 (L) ft + 2.5 ft (B) + 2.5 ft (W) can be considered.

5.1.2 The inner surface of the cabinet and its fittings shall be smooth and impervious, and any point, rendering or coating used on the interior shall be capable of withstanding the maximum temperature.

5.1.3 Ventilation of the cabinet shall be provided by means of one or more ports near the bottom and the top of the cabinet. In large cabinets circulating fans may be provided to assist ventilation so that temperature variation is kept within limits and to achieve horizontal air circulation. The circulating fan shall not protrude into the working space.

5.1.4. Automatic cut off of heater and blower when door opened shall be installed.

5.1.5 The heating element shall be so designed and located that overheating in its vicinity is minimized.

5.1.6 The wiring and components used in the cabinet shall be constructed or fixed in such a manner that they shall be able to withstand continuously the temperature to which they are likely to be exposed when the cabinet working space is maintained at its designed maximum temperature.

5.1.7 The cabinet shall be fitted with PT 100 sensor and LED display which shows the internal temperature.

5.1.8 For controlling temperature, digital PID with timer, alarms and auto tuning shall be fitted.

5.1.9 The inner roof of the cabinet shall be fitted with two transverse bars, of suitable size and width as per the dimension of cabinet, for hanging the rectangular frames. The bars shall be grooved at 1 inch interval for hanging the hangers (Fig.1)

5.1.10 Wheels and Castors (which can be locked) shall be fitted for easy movement of cabinet.

5.1.11 The rear of the cabinet shall be made of a perforated steel sheet, behind which all the electric circuits shall be concealed. This design shall also facilitate repairs without compromising the sterilization of the cabinet.

5.1.12 The interior of the body shall be powder-coated steel with perforations at the rear to house the thermostat, UV connections, light connections and provide access to these components from the rear of the box.

5.2 Hangers

5.2.1 Rectangular frames of suitable size and width as per the dimension of cabinet shall be fitted with hooks in the upper arm.

5.2.2 Side arms of hangers shall be notched at 1.5 cm interval to anchor the *Ksharasutra* thread.

6 PERFORMANCE REQUIREMENTS

The *Ksharasutra* cabinet shall comply with the performance requirements given in the Table 1.

Sl No (1)	Specification (2)	Requirement (3)
1.	Rated voltage	220 V
2.	Rated voltage range	220-240 V
3.	Rated frequency range	50-60 Hz
4.	Power	AC, Single phase, 1 Φ
5.	Temperature Range	30 °C-100 °C
6.	Working temperature	Room temperature upto 60 °C
7.	Control Accuracy	$\pm 0.5^{\circ}\text{C}$
8.	Uniformity	± 2.0 at 100 °C

7 STERILIZATION

7.1 For sterilization, UV-C lamp with peak at wavelength of 254 nm shall be fitted.

7.2 Safety requirements of UV-C lamp shall be as per **IS 18687:2024**.

8 SAFETY REQUIREMENTS

8.1 Protection against access to live parts — The provisions of *clause 8* of IS 302 (Part 1): 2024 shall apply.

8.2 Heating — The provisions of *clause 11* of IS 302 (Part 1): 2024 shall apply.

8.3 Leakage current and electric strength at operating temperature — The provisions of *clause 13* of IS 302 (Part 1): 2024 shall apply.

8.4 Stability and mechanical hazards — The provisions of *clause 20* of IS 302 (Part 1): 2024 shall apply.

8.5 Mechanical Strength — The provisions of *clause 21* of IS 302 (Part 1): 2024 shall apply.

8.6 Supply connection and external flexible cords — The provisions of *clause 25* of IS 302 (Part 1): 2024 shall apply.

8.7 Terminals for external conductors — The provisions of *clause 26* of IS 302 (Part 1): 2024 shall apply.

8.8 Provision for earthing — The provisions of *clause 27* of IS 302 (Part 1): 2024 shall apply.

8.9 Screws and Connections — The provisions of *clause 28* of IS 302 (Part 1): 2024 shall apply.

8.10 Resistance to Rusting — The provisions of *clause 31* of IS 302 (Part 1): 2024 shall apply.

9 PACKING AND MARKING

9.1 Packing

The *Ksharasutra* Cabinet shall be packaged in such a way that their characteristics and performance during their intended use are not adversely affected during transport and storage, for example, through fluctuations of temperature and humidity, taking account of the instructions and information provided by the manufacturer. Packing shall be done to maintain the integrity and cleanliness of the product.

9.2 The *Ksharasutra* Cabinet shall be marked in accordance with 7 of IS 302 (Part 1): 2024.

- a) Rated voltage or rated voltage range, in volts
- b) Symbol for nature of supply, unless the rated frequency is marked
- c) Rated power input in watts or rated current, in amperes
- d) Name, trade mark or identification mark of the manufacturer or responsible vendor
- e) Model or type reference
- f) IP number according to degree of protection against ingress of water
- g) Country of manufacture
- h) Compliance is checked by inspection
- i) Marking of Earth Terminal — The symbol shall be marked prominently on or adjacent to the earth terminal, if provided.

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 there under, and the product(s) may be marked with the Standard Mark.

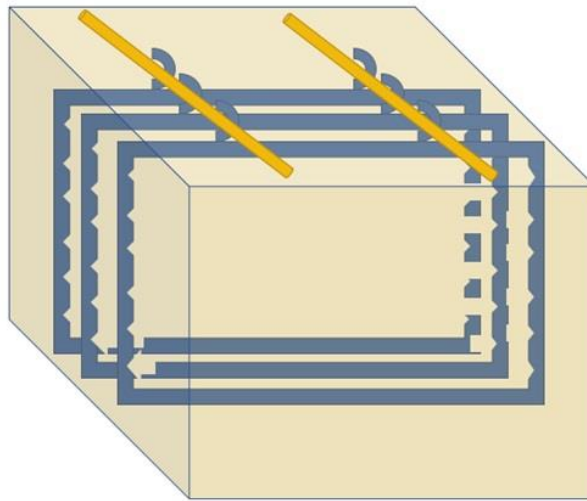


FIG.1 KSHARASUTRA CABINET SHOWING ARRANGEMENT OF RODS AND HANGERS.