

**BUREAU OF INDIAN STANDARDS**

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*भारतीय मानक मसौदा*  
**आरी, नासाल, जोसेफ पैटर्न के लिए विशिष्टि**  
*(First Revision of IS 5412)*

*Draft Indian Standard*  
**Specification for Saws, Nasal, Joseph's Pattern**  
*(First Revision of IS 5412)*

**[ICS 11.040.30]**

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Ear, Nose, Throat, Head & Neck Surgery  
Instruments Sectional Committee, MHD 04

Last date for comments: 22 **July, 2024**

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**FOREWORD**

*(Formal clause will be added later)*

This standard was originally published in 1969. The First revision of this standard has been brought out to align it with recent developments and to bring the standard in line with the latest style and format of Indian Standards.

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 same as that of the specified value in this standard.

*Indian Standard*  
SPECIFICATION FOR SAWS, NASAL, JOSEPH'S PATTERN

## 1 SCOPE

Dimensional and other requirements of nasal saw (Joseph's pattern) used in ENT surgery.

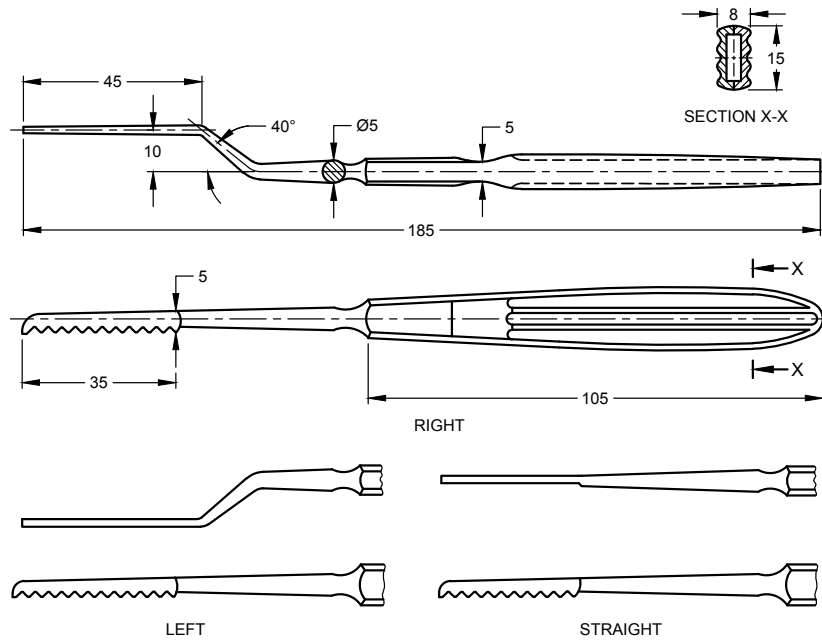
## 2 REFERENCES

The standards given 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 editions of these standards.

<i>IS No.</i>	<i>Title</i>
IS 1570 (Part 5): 1985	Schedules for wrought steels: Part 5 stainless and heat - Resisting steels (Second Revision)
IS 4170 : 1967	Specification for brass rods for general engineering purposes
IS 1068 : 1993	Electroplated coatings of nickel plus chromium and copper plus nickel plus chromium - Specification (Third Revision)
IS 7531 : 1990	Surgical instruments - Corrosion resistance of stainless steel surgical instruments - Methods of tests (First Revision)

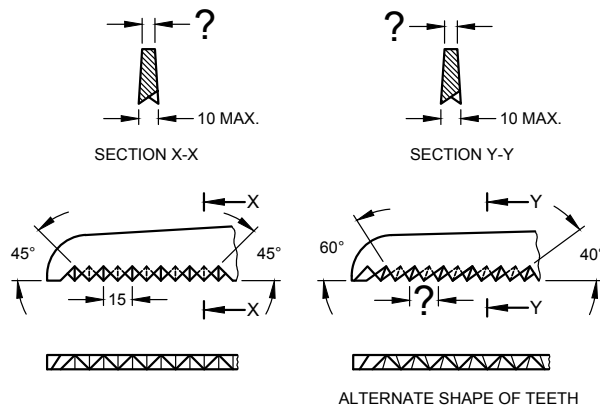
## 3 SHAPE AND DIMENSIONS

As shown in Fig, 1 and 2.



All dimensions in millimetres.

FIG. 1 SAW, NASAL, JOSEPH'S PATTERN



All dimensions in millimetres.

FIG. 2 DETAIL OF BLADE

## 4 MATERIAL

**4.1 Blade** — Stainless steel, Designation 30Cr1 3 of IS:1570 (Part 5)

**4.2 Handle** — Brass, Alloy Grade CuZn3 0 of IS:4170 or stainless-steel 1 conforming to Designation 04Cr19N1 9 of IS: 1570 (Part 5)

## 5 WORKMANSHIP AND FINISH

**5.1** The blade and handle shall be free from burrs, pits, scale and other defects.

**5.2** The blade shall be straight true to shape and size and shall be fixed in the handle by brazing.

**5.3** Teeth shall be well cut, sharp, regular in spacing, clean and uniform along the edge.

**5.4** Blade shall be finished smooth and even except at the teeth.

**5.5** Blade and stainless-steel handles shall be passivated and polished bright.

**5.6** The e brass handle shall be plated chromium over nickel conforming to Service Grade No 2 of IS: 1068.

## 6 HEAT TREATMENT

Blade shall be uniformly hardened and tempered to 420 to 480 HV, measured as near to the as possible.

## 7 TESTS

**7.1** Saw through a well-seasoned teak wood piece. 2.0 mm square three times. The cutting edge of the Saw shall show no sign of damage and the cut through the teak wood piece shall be neat.

**7.2** Grip the handle in a vice with its axis horizontal and with the entire length of the blade and shank protruding. Apply force at the tip to deflect it by 3 mm in a plane at right angles to its own plane. Release the force. The saw shall not acquire a new set.

**7.3 Corrosion Resistance** — The instrument shall satisfy the boiling and autoclaving test as prescribed in IS: 7531.

## 8 Marking

Mark with the following: Manufacturer's name, initials or recognized trademark, and the word 'stainless steel' on the shank.

## 9 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.

## **10 PACKING**

Wrap individually in wax paper or polyethylene bag and pack in cardboard cartons or as agreed to between the purchaser and the supplier. On the package of the product batch Number, Lot Number, and Serial Number shall be mentioned.