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भारतीय मानक मसौदा

ईएनटी शल्य चिकित्सा उपकरण – संदंश — शेवेलियर
जैक्सन पैटर्न — विशिष्टि
(IS 8734 का पहला पुनरीक्षण)

Draft Indian Standard

**ENT Surgery Instruments – Forceps — Chevalier
Jackson’s Pattern – Specification**
(*First Revision of IS 8734*)

[ICS 11.040.30]

Ear, Nose, Throat and Head & Neck Surgery (ENT -
H&N) Instruments Sectional Committee, MHD 04

Last date for comments:
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FOREWORD

(Formal clause will be added later)

This standard was originally published in 1978. The first revision of this standard has been brought out to align it with the 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

ENT SURGERY INSTRUMENTS – FORCEPS — CHEVALIER
JACKSON’S PATTERN – SPECIFICATION

1 SCOPE

This standard covers dimensional and other requirement for Chevalier Jackson’s pattern forceps of sizes 300, 350, 400 and 550 mm for cutting and removing large specimens 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 3642 (Part 1): 1990	Surgical instruments - Specification: Part 1 non - Cutting, articulated instruments (<i>Second Revision</i>)
IS 6603 : 2024	Stainless Steel Semi-Finished Products, Bars, Wire Rods and Bright Bars — Specification (<i>Second Revision</i>)
IS 7531 : 1990	Surgical instruments - Corrosion resistance of stainless steel surgical instruments - Methods of tests (<i>First Revision</i>)

3 SHAPE AND DIMENSIONS

3.1 The shape and dimensions shall be as shown in **Fig. 1**.

3.2 A deviation of ± 2.5 percent shall be allowed on all dimensions

3.3 A deviation of $\pm 25^\circ$ shall be allowed for angle.

4 MATERIAL

The forceps shall be made of stainless steel conforming to Designation X40Cr13 of IS 6603.

5 WORKMANSHIP AND FINISH

5.1 The forceps shall be free from scales, cracks, burrs, pits, tool marks and other surface defects.

5.2 All edges shall be smoothly rounded off except the cutting edge.

5.3 The jaws shall open and close fully and freely without any stiffness.

5.4 The forceps shall be passivated and matt-finished.

5.5 The maximum opening of the upper jaw shall correspond to the maximum opening of the finger loops, that is, when the finger loops are open to their maximum position, the upper jaw shall not move further.

6. HEAT TREATMENT

The forceps shall be uniformly hardened and tempered to give a hardness of 540 to 600 *HV*.

7 TESTS

7.1 Performance

The forceps shall be made to punch a $\frac{1}{2}$ mm thick card board sheet. The forceps shall do this easily and cleanly. This shall be repeated 10 times. During or on completion of the test, the cutting edges of the forceps shall show no sign of damage when viewed under microscope of 10 X magnification.

7.2 Flexibility

The flexibility shall be tested in the following manner.

7.2.1 The jaws shall be made to bite a piece of firm rubber about 1.5 mm thick and the finger loops closed as fully as possible. On release, the forceps shall not show any sign of damage or the upper jaw shall not become loose at its hinges.

7.2.2 A force of moderate degree shall be applied by the fingers to the shank attempting to bend the shank on the widthwise. This shall be repeated at several points along the shank. The test shall then be repeated in a plane at right angles to the first. On completion of the test the shank shall not have acquired permanent set.

7.3 Corrosion Resistance

The forceps shall satisfy the boiling and autoclaving test conforming to IS 7531. The joints of the forceps shall be free from rust.

8 MARKING

8.1 The forceps shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade-mark, and the country of manufacture.

8.2 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.

9 PACKING

The forceps shall be wrapped in moisture-proof paper or packed in polyethylene bag. Each forceps shall then be packed in individual cartons. The forceps may also be packed as agreed to between the purchaser and the supplier.