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भारतीय मानक मसौदा

ईएनटी शल्य चिकित्सा उपकरण — डायरेक्ट ब्रॉकोस्कोपी
संदंश — इरविन मूर का पैटर्न — विशिष्टि
(IS 8743 का दूसरा पुनरीक्षण)

Draft Indian Standard

**ENT Surgery Instruments – Direct Bronchoscopy
Forceps — Irwin Moore's Pattern — Specification**

(Second Revision of IS 8743)

[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 and subsequently revised in 1994. The second 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 – DIRECT BRONCHOSCOPY
FORCEPS — IRWIN MOORE'S PATTERN — SPECIFICATION****1 SCOPE**

This standard specifies dimensional and other requirements for Irwin Moore's forceps for direct bronchoscopy with alligator jaws and tenaculum points for version and for grasping foreign bodies 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 6603 : 2024	Stainless Steel Semi-Finished Products, Bars, Wire Rods and Bright Bars — Specification (<i>Second Revision</i>)
IS 3642 (Part 1): 1990	Surgical instruments – Specification: Part I non-cutting articulated instruments (<i>second revision</i>)
IS 7531 : 1990	Surgical instruments – Corrosion resistance of stainless steel surgical instruments – Methods of tests (<i>First Revision</i>)

3 MATERIAL

The components of forceps shall be made of stainless steel conforming to designation 30Cr13 of IS 6603.

4 WORKMANSHIP AND FINISH

4.1 The shape and dimensions shall be as give in **Fig. 1**.

4.2 The-tolerances on linear and angular dimensions shall be in accordance with IS 3642 (Part1).

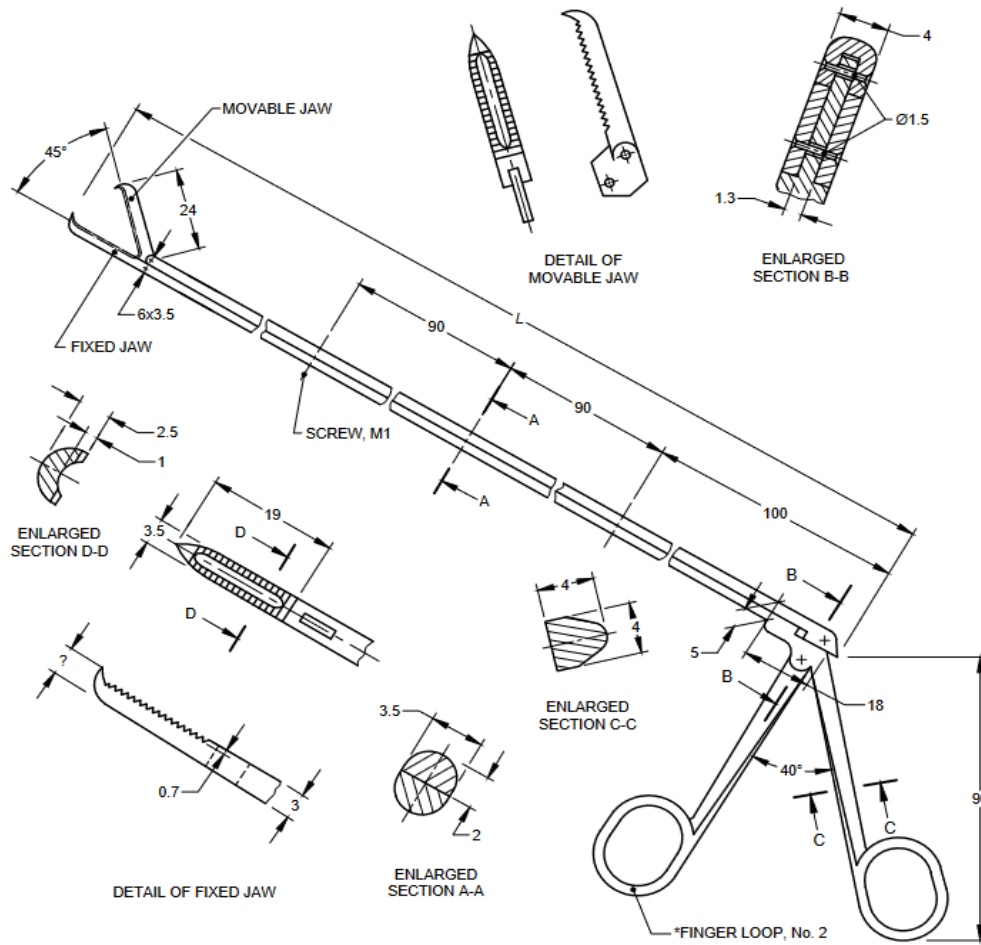
4.3 The two halves of the instrument shall, however, not differ at any dimension except where required, and shall match with each other perfectly.

4.4 Joint

The joint shall be as specified in IS 3642 (Part 1). The joint shall be rivetted.

4.5 Finger Loops

The finger loops shall conform to Size 1 of IS 3642 (Part 1).



All dimensions in millimetres.

FIG. 1 MOORE'S TENACULUM POINTS, IRWIN PATTERN ENT SURGERY INSTRUMENTS – FORCEPS, DIRECT BRONCHOSCOPY, WITH ALLIGATOR JAWS AND

Size	L	No. of Screws
Large	550	4
Medium Large	400	3
Medium	350	2
Small	300	2

5 HEAT TREATMENT

5.1 The component parts of the forceps shall be heat treated under suitable conditions to give a hardness in accordance with IS 3642 (Part 1)

5.2 The mating surfaces of the instrument, such as, opposite jaws, blades and shanks shall not vary in hardness by more than 40-NV.

6 WORKMANSHIP AND FINISH

6.1 The joint of the forceps shall articulate smoothly and shall be neither too loose nor too tight.

6.2 It shall be possible to close and reopen the instrument easily with two fingers without stiffness and there shall be no play at the joint.

6.3 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.

6.4 The jaws shall open and close fully and freely without any stiffness. The jaws shall register accurately and shall close completely without any gap when the forceps is closed.

6.5 The upper jaw shall move freely and smoothly.

6.6 All the edges except the tenaculum and serrations shall be rounded unless specified otherwise.

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

6.8 The forceps shall be passivated and matt finished in accordance with IS 3642 (Part 1).

7 TESTS

7.1 The jaws shall be made to bite a piece of firm vulcanized rubber sheet about 3.00 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 hinge.

7.2 A force of moderate degree shall be applied by the fingers to the shank, attempting to bend it along the width. 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 a permanent set.

7.3 The forceps shall pass the test for resistance against corrosion in accordance with 4 and 5 of IS 7531 1990.

8 MARKING

8.1 The instrument shall be legibly and indelibly marked with the following information:

- a) Indication of the source of manufacture,
- b) The letters 'SS' or the words 'Stainless Steel', and
- c) 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 instrument shall individually be either put in a polyethylene bag or wrapped in a wax paper. Each instrument shall then be packed in carton as agreed to between the purchaser and the manufacturer or in accordance with the current trade practices.