

पशु चिकित्सा सर्जिकल उपकरण — चूची  
विस्तारक (हडसन) — विशिष्टि  
(पहला पुनरीक्षण)

**Veterinary Surgical Instruments —  
Teat Dilators (Hudson) —  
Specification**  
(First Revision)

ICS 11.220

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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Veterinary Hospital Planning and Surgical Instruments Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1988 with the title 'Specification for Dilators, Teat (Hudson)'. This revision has been brought out to align the cross-references to the latest editions.

The composition of the Committee responsible for formulation of this standard is given in [Annex A](#).

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*)'.

*Indian Standard***VETERINARY SURGICAL INSTRUMENTS — TEAT DILATORS  
(HUDSON) — SPECIFICATION***( First Revision )***1 SCOPE**

This Indian Standard covers requirements for dilators, teat (Hudson) set of 2 sizes with one introducer for veterinary use.

**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 2102 (Part 1) : 1993/ISO 2768 -1 : 1989	General tolerances: Part 1 Tolerances for linear and angular dimensions without individual tolerance indications ( <i>third revision</i> )
IS 6603 : 2001	Stainless steel bars and flats — Specification ( <i>first revision</i> )
IS 7531 : 1990	Surgical instruments — Corrosion resistance of stainless steel surgical instruments — Methods of tests ( <i>first revision</i> )

**3 DIMENSIONS**

**3.1** The dimensions of the teat dilator shall be as given in [Fig. 1](#).

**3.2** The tolerance on dimensions of working ends shall conform to 'fine' class of deviation and the tolerance for remaining dimensions shall conform to 'medium' class of deviation of IS 2102 (Part 1).

**4 MATERIAL**

Stainless steel conforming to designation X30Cr13 of IS 6603.

**5 MANUFACTURE, WORKMANSHIP AND FINISH**

**5.1** The distal end of the dilators and introducer

shall be well rounded and nowhere sharp. The shape of coiled portion of the dilators shall be correct.

**5.2** The instrument shall be free from all defects like burrs, pits, cracks, nicks and waviness when examined under 10 times magnification. All surfaces shall be free from pores, crevices and grinding marks.

**5.2.1** The instrument shall be supplied free from residual scales, acid, grease and grinding and polishing materials. Compliance with these requirements shall be checked under 2 times magnification.

**5.3 Surface Finish**

The surface finish shall be mirror finish. The instrument should be adequately ground to remove all surface imperfections and polished to remove grinding marks, resulting in a mirror finish. The mirror finish should be effected by an appropriate procedure, such as polishing, brushing, electro polishing and mirror buffing.

**6 HARDNESS**

The dilators shall be uniformly hardened and tempered to give a hardness of 380 HV to 420 HV.

**7 TESTS****7.1 Performance Test**

The shaft of dilators and introducer shall be tested by bending around the periphery of a circle of 570 mm radius. On completion of the test, they shall not take a permanent set and shall not show any sign of damage.

**7.2 Corrosion Resistance Test**

Dilators and introducer shall be tested in accordance with IS 7531

**8 PASSIVATION AND FINAL TREATMENT**

The instrument shall be treated by a suitable passivation process.

NOTE — Examples of methods of passivation are by electropolishing or by treating with 10 percent (v/v) nitric acid solution for not less than 30 minutes at a temperature of not less than 10 °C and not exceeding 60 °C. The instruments should then be rinsed in water and dried in hot air.

## 9 MARKING

9.1 Each dilator and introducer shall be legibly and indelibly marked with the following:

- a) Name of manufacturer, its initials or recognized trade-mark; and
- b) The words 'stainless steel' or letters 'SS'.

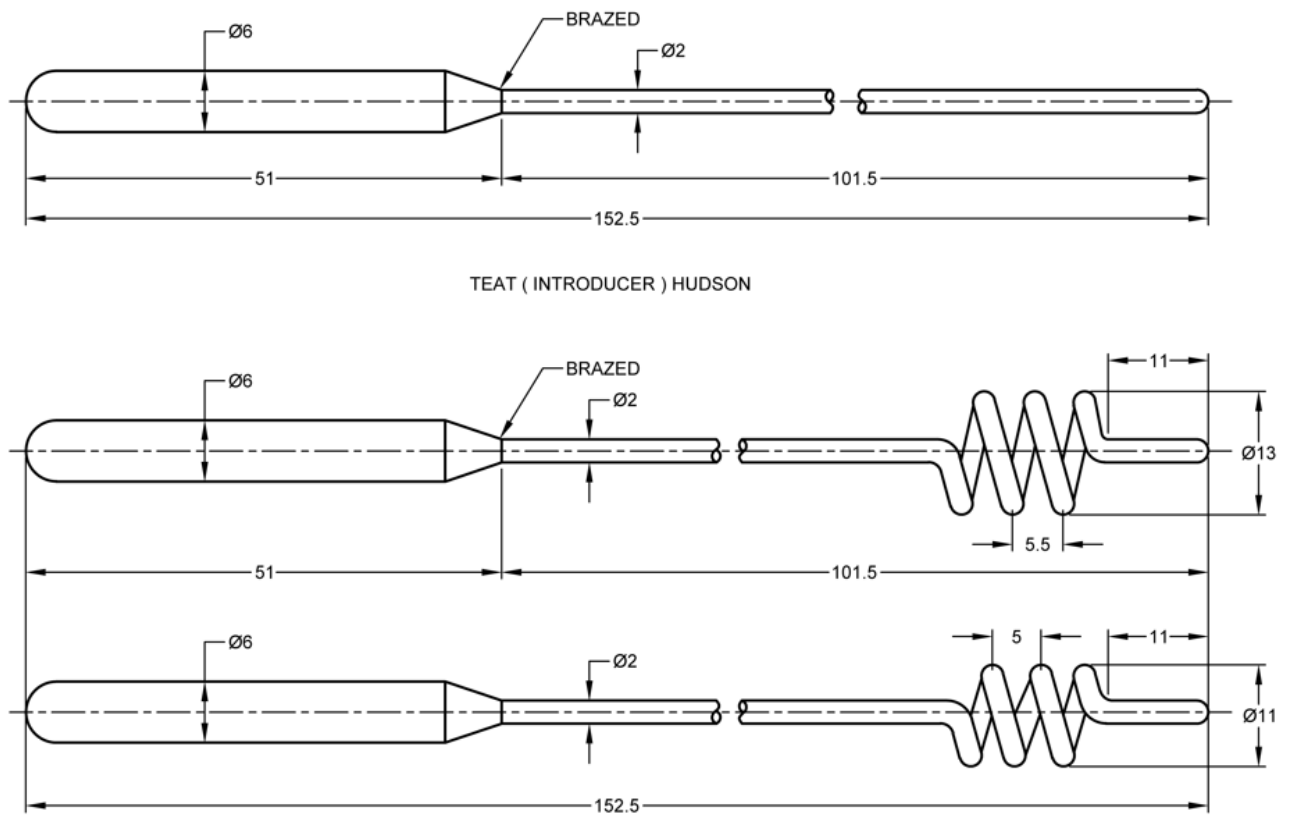
## 9.2 BIS Certification Marking

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 products may be marked with the Standard Mark.

## 10 PACKING

The dilators with introducer shall be delivered in a new and clean condition. Each dilator and introducer shall be packed as agreed to between the purchaser and the supplier.



All dimensions in millimetres.  
FIG. 1 DILATORS, TEAT, HUDSON

## ANNEX A

*(Foreword)*

## COMMITTEE COMPOSITION

Veterinary Hospital Planning and Surgical Instruments Sectional Committee, MHD 13

<i>Organization</i>	<i>Representative(s)</i>
In Personal Capacity ( <i>B2/2204, Cleo County, Sector 121, Noida - 201316</i> )	DR K. M. L. PATHAK ( <b><i>Chairperson</i></b> )
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Dr Chariar's Pets Speciality Clinic, Thane	DR VEERARAGHAVAN M. CHARIAR DR YAUGANDHA KHARE ( <i>Alternate</i> )
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SCIENTIST 'B'/ASSISTANT DIRECTOR  
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This Indian Standard has been developed from Doc No.: MHD 13 (23771).

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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