*भारतीय मानक*

**न्यूरोसर्जिकल उपकरण — संदंश, धमनी, सपाट पर सीधे और घुमावदार, ह्यूग केयर्न का पैटर्न — आकार और लंबाई-चौड़ाई**

*(दूसरा पुनरीक्षण)*

*Indian Standard*

**Neurosurgical Instruments — Forceps, Artery, Straight and Curved on Flat, Hugh Cairn’s Pattern — Shape and Dimensions**

*(Second Revision)*

ICS 11.040.30

Neurosurgery Instruments, Implants and Accessories Sectional Committee, MHD 07

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Neurosurgery Instruments, Implants and Accessories Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This Indian Standard was first published in 1976. The first revision of this standard was published in 1994. The 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.

It has been revised to cover the requirements in respect of shape and dimensions only, as the specification part of these types of instruments is covered in IS 3642 (Part 1) : 1990 ‘Surgical instruments — Specification: Part 1 Non-cutting, articulated instruments (*second revision*)’. This standard is, therefore, intended to be used only in respect of shape and dimensions, which are referred to in **4.1** of IS 3642 (Part 1).

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*)’. 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*

NEUROSURGICAL INSTRUMENTS — FORCEPS, ARTERY, STRAIGHT AND CURVED ON FLAT, HUGH CAIRN’S PATTERN — SHAPE AND DIMENSIONS

*( Second Revision )*

1. **SCOPE**

This standard prescribes shape and dimensions for straight and curved on flat, Hugh Cairn’s pattern, artery forceps used in neurosurgery.

1. **REFERENCES**

The standard given below contain provisions, which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated was 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 this standard.

|  |  |
| --- | --- |
| *IS No.* | *Title* |
| IS 3642 (Part 1) : 1990 | Surgical instruments — Specification: Part 1 Non-cutting, articulated instruments (*second revision*) |

1. **SHAPE AND DIMENSIONS**
   1. The shape and dimensions for the straight and curved on flat forceps shall be as shown in Fig. 1 and Fig. 2, respectively.
   2. **Tolerances**

Tolerances on dimensions shall be as specified in **4.2** of IS 3642 (Part 1).

* 1. **Mass**

The mass of the instrument shall be 25 g ± 3 g.

* 1. **Tip**

The forceps shall have either plain or toothed tip. The toothed tip shall be of 1 in 2 teeth type and shall conform to the requirements given in Section 5 of IS 3642 (Part 1).

* 1. **Serrations**

The serrations shall be transverse and shall match crest to trough. They shall be clear, of uniform depth throughout, and true and square with the jaws of the instrument.

* 1. **Ratchet**

The ratchet teeth shall conform to the requirements given in Section 4 of IS 3642 (Part 1) combination of 1 in 2 for straight and 3 in 3 or 1 in 2 for curved on flat type forceps.

* + 1. The ratchet teeth shall be so designed that the load at which the first ratchet just Engages shall be between 2.0 kgf to 2.5 kgf.
  1. **Joint**

The joint shall be box type in accordance with **13.2.2** of IS 3642 (Part 1).

* 1. **Finger Loops**

The finger loops shall conform to size no. 2 of Section 6 of IS 3642 (Part 1).

1. **MARKING**

Each Hugh Cairn’s shall be marked with the following:

1. Manufacturer's name, initials or registered trade-mark in the space provided on country of manufacture; and
2. Serial number; and
3. Batch number.
4. **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.

1. **PACKAGING**

Each product shall be wrapped in a moisture-proof paper or polyethylene bag and packed in a suitable cardboard carton. The packing may also be done as agreed between the purchaser and the supplier. On the package of the product batch number, lot number, and serial number shall be mentioned.



All Dimensions in milimetres.

Fig. 1 Forceps, Artery, Straight, Hugh Cairn’s Pattern



All Dimensions in milimetres.

Fig. 2 Forceps, Artery, Curved on Flat, Hugh Cairn’s Pattern

**ANNEX A**

(*Foreword*)

**COMMITTEE COMPOSITION**

Neurosurgery Instruments Implants and Accessories Sectional Committee, MHD 07

|  |  |  |
| --- | --- | --- |
| *Organization* |  | *Representative*(*s*) |
| G B Pant Hospital, New Delhi |  | Dr Daljit Singh **(*Chairperson)*** |
| Abbott Healthcare India Private Limited, Mumbai |  | MS Lipi Chakhaiyar  Shweta Sharma (*Alternate*) |
| Association of Indian Medical Device Industry, New Delhi |  | Naveen Khanna  Puhazhendi Kaliyappan (*Alternate* I)  Shri Ankur Bhargava (*Alternate* II) |
| Boston Scientific India Private Limited, Gurugram |  | Dev Chopra  Prashanth Prabhakar (*Alternate*) |
| Central Drugs Standard Control Organization, New Delhi |  | Shri Aseem Sahu  Ms Shyamni Sasidharan (*Alternate*) |
| Defence Bio-Engineering and Electromedical Laboratory, Ministry of Defence, Bengaluru |  | Jayant Daniel  G. Sripathy (*Alternate*) |
| Directorate General of Health Services, New Delhi |  | Ajay Choudhary  K. B. Shanker (*Alternate*) |
| Happy Reliable Surgeries Private Limited, Bangaluru |  | Hemant Savale  Sanjeev Gautam (*Alternate*) |
| Indian Institute of Technology Hyderabad, Hyderabad |  | Avinash Eranki  Kousik Sarathy S. (*Alternate*) |
| Kalam Institute of Health Technology, Vishakhapatnam |  | Santosh Kumar Balivada  Divya Anil Patil (*Alternate* I)  Purva Suhas Phalke (*Alternate* II) |
| Skull Base Surgery Society of India, Chennai |  | Harsh Deora |
| In Personal Capacity |  | Shri Asok Kumar Raghavan Nair |
| BIS Directorate General |  | Shri A. R. Unnikrishnan, Scientist ‘G’/and Head (Medical Equipment and Hospital Planning) [Representing Director General (*Ex-officio*)] |

*Member Secretary*

Ms Harshada Ganesh Kadam

Scientist ‘B’/Assistant Director

(Medical Equipment and Hospital Planning), BIS