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भारतीय मानक मसौदा
डेंटल डिस्टल आर्क वायर कटर — विशिष्टि
[IS 6822 का पहला पुनरीक्षण]

Draft Indian Standard
Dental Distal Arch Wire Cutter — Specification
[First Revision of IS 6822]

[ICS 11.060.20]

Dentistry Sectional Committee, MHD 08

Last date for comments:
06 September 2024

FOREWORD

(Formal clause will be added later)

This standard was originally published in 1972 as ‘Specification for Cutter, Distal Arch Wire, Dental’. This revision aligns the cross references to the latest standards, incorporates revised designations for steel and revised certification clause

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 the same as that of the specified value in this standard.

1 SCOPE

This standard specifies dimensions and other requirements for distal arch wire cutter used in dentistry.

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 (<i>Second Revision</i>)
IS 3642 (Part 1): 1990	Surgical instruments – Specification Part 1 non - Cutting, articulated instruments (<i>Second Revision</i>)
MHD/08/20630	Cutting Type Dental Instruments — General Requirements (<i>Second Revision</i>)
IS 4218 (Part 1) : 2001/ISO 68-1 : 1998	ISO general purpose metric screw threads Part 1 Basic profile (<i>second revision</i>)

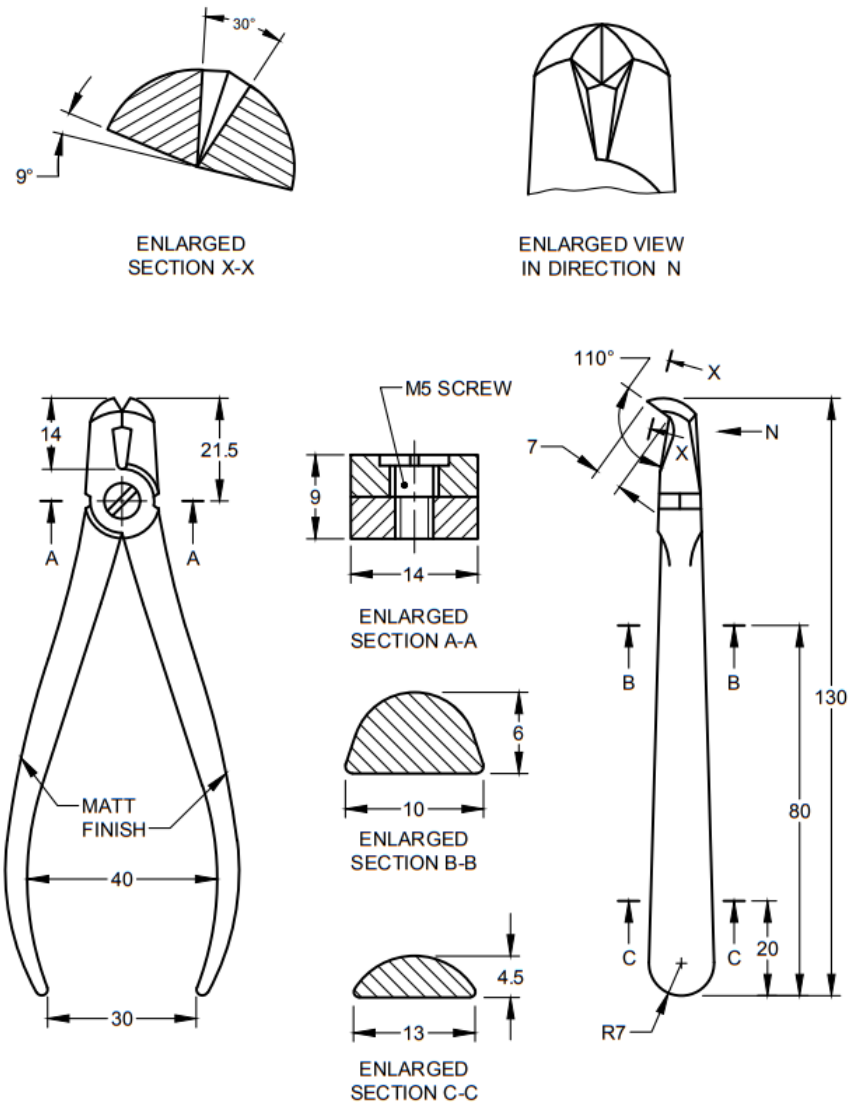
3 MATERIAL

3.1 For pliers stainless steel conforming to Designation X30Cr13 of IS 1570(Part 5).

3.2 For screw stainless steel conforming to Designation X20Cr13 of IS 1570 (Part 5).

4 SHAPE AND DIMENSIONS

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



All dimensions in millimetres.

Fig. 1 Cutter, Distal Arch Wire, Dental

5 WORKMANSHIP AND FINISH

5.1 The two halves of the cutter shall move freely about the Joint without any play and shall open fully. The instrument shall be balanced, the movement shall be even and the jaws shall register accurately..

5.2 The surfaces of the cutters shall be finished smooth except the outside surface of handles which shall have matt finish. The edges shall be even, free from pits and rounded except the cutting edge which shall be sharp.

5.3 Joint

The Screw Joint shall be conforming to 6 of IS 3642. The screw used shall be of slotted raised cheese head pattern as shown in Fig. 1. The profile of the screw-thread shall conform to IS 4218 (Part 1). The thread shall be of such length as to allow sufficient shank for proper bearing surface and to adequately secure component parts of the cutters with proper tension for cutting. The screw shall retain proper position after setting without binding or loosening. The ends of the screw in the joint shall be finished flush with the surface.

5.4 The cutter shall be suitably passivated and polished.

6 HEAT TREATMENT

The cutter shall be uniformly hardened and tempered to 500 to 600 HV.

7 TESTS

7.1 Practical Test

The cutter shall be tested by cutting 0.50 mm diameter orthodontic stainless steel wire (hard drawn). The wire shall be cut easily and cleanly. The test shall be carried out six times at the same place on the cutting edge of the cutter. On completion of the test, the cutter, in particular the cutting edge, shall show no sign of damage.

7.2 Corrosion Resistance Test

The corrosion testing shall be done in accordance with 9.1 of IS 3887.

8 MARKING

8.1 Each cutter shall be legibly and indelibly marked with the manufacturer's name, initials or trade-mark; the letters ' SS ', 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 there under, and the product(s) may be marked with the Standard Mark.