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### भारतीय मानक

# चिमटियाँ — विशिष्टि

( दूसरा पुनरीक्षण )

Indian Standard

## PINCERS — SPECIFICATION

( Second Revision )

UDC 621'881'4

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

#### **FOREWORD**

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by Assembly Hand Tools Sectional Committee, PE 05 had been approved by the Production Engineering Division Council.

This standard was first issued in 1971 under the title "Specification for carpenters". The first revision was taken up in 1973. The title of the specification was modified in view of the fact that the pincers covered in the specification were being used by the carpentry, shoe making and in similar other trades. In the revised standard the number of sizes were increased to 5 and the size 300 mm pincers was included. Different hardness range were also specified for the cutting edge and rest of the tool.

In this revision, the dimensions and load test values have been modified and aligned with ISO 9243: 1988 Pliers and nippers — Carpenter's pincers — Dimensions and test values, issued by International Organization for Standardization (ISO).

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, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

### Indian Standard

### PINCERS — SPECIFICATION

## (Second Revision)

#### 1 SCOPE

This specification covers the requirements for pincers.

#### 2 REFERENCES

IS No.

2.1 The following Indian Standards are necessary adjuncts to this standard:

Title

2615: 1989	Pliers, pincers and nippers— Technical supply condition (Second revision)
3749 : 19 <b>7</b> 8	Tool and die steels for cold work ( first revision )
11526 : 1986	Nomenclature for pliers, pincers and nippers

#### 3 NOMENCLATURE

Nomenclature of pincers shall be as given in IS 11526: 1986.

#### 4 DIMENSIONS

Dimensions of pincers shall be as given in Table 1.

#### 5 MATERIAL

For the manufacture of pincers, suitable carbon or alloy steels meeting the requirements laid down in 6 and 8 shall be used.

#### Example:

Steel designation 65T6 70T3 and 75T6 of IS 3749: 1978.

#### **6 HARDNESS**

Cutting Edges: 510 to 700 HV ( $\approx$  50 to 60

HRC)

Rest of Tool : 350 to 510 HV ( $\approx$  35 to 50

HRC)

#### 7 GENERAL REQUIREMENTS

The material, manufacture, workmanship and finish, test, preservation, and packing and sampling of pincers shall conform to IS 2615: 1989.

#### 8 TESTS

In addition to the tests specified in IS 2615: 1989, the following test shall also be carried out.

#### 8.1 Handle Load Test

The pincers shall be tested for deflection and permanent set as given in 9.5 of IS 2615: 1989. The test load, the deflection and the permanent set shall be as specified in Table 1.

#### 9 DESIGNATION

A pincer of nominal size 160 mm shall be designated as:

Pincer 160, IS 4095

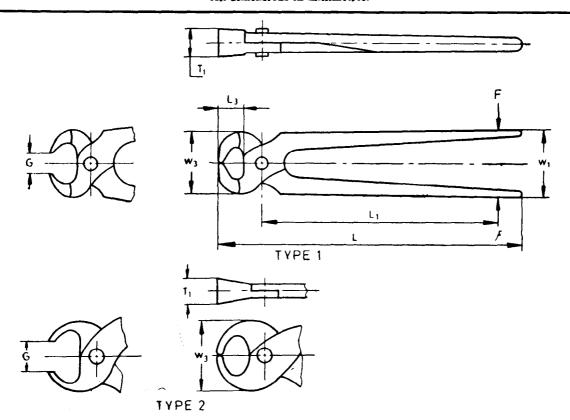
#### 10 MARKING

The pincers shall be clearly and legibly stamped with the manufacturer's name, initials or recognized trade-mark. The year of manufacture, if required by the purchaser, shall also be marked.

Table 1 Dimensions and Load Test Requirements of Pincers

(Clauses 4 and 8.1)

All dimensions in millimetres.



$\boldsymbol{L}$	$L$ $L_3$	$W_{a}$	<i>T</i> <sub>1</sub>		$W_1$ $G$	$\boldsymbol{G}$	$L_1$	Load Test	
	Min	Min	Type 1 Min	Type 2  Max	±5	Min		Load F	Maximum Permanent Set S, Max
mm	mm	mm	mm	mm	mm	mm	mm	N	mm
160±8	11.2	32	16	14	45	12.5	106	710	1.2
180±9	12.5	36	18	16	45	14	118	710	1.4
200±10	14	40	20	18	45	16	132	800	1.6
224±10	16	45	22	20	48	18	150	900	1.8
<b>2</b> 50±10	18	50	25	22	50	20	170	1 000	2
$280 \pm 10$	20	56	28	25	53	22	190	1 120	2.2

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#### BUREAU OF INDIAN STANDARDS

#### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones: 331 01 31, 331 13 75

Telegrams: Manaksanstha
(Common to all Offices)

Regional Offices: Telephonc

Central: Manak Bhavan, 9 Bahadur Shah Zafar Marg [331 01 31]

NEW DELHI 110002 331 13 75

Eastern: 1/14 C.I.T. Scheme VII M, V.I.P. Road, Maniktola
CALCUTTA 700054

37 86 62

Northern: SCO 445-446, Sector 35-C, CHANDIGARH 160036 53 38 43

Southern: C.I.T. Campus, IV Cross Road, MADRAS 600113 2350216

Western: Manakalaya, E9 MIDC, Marol, Andheri (East)
BOMBAY 400093

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