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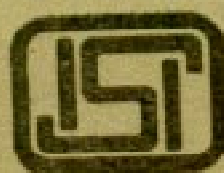


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*Indian Standard*  
SPECIFICATION FOR  
GLASS PLIERS

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INDIAN STANDARDS INSTITUTION  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 1

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June 1969

# Indian Standard

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**IS : 5066 - 1969**

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# *Indian Standard*

## SPECIFICATION FOR GLASS PLIERS

### 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 17 April 1969, after the draft finalized by the Hand Tools Sectional Committee had been approved by the Mechanical Engineering Division Council.

**0.2** For the preparation of this standard, assistance has been derived from GGG-P-471C 'Pliers', issued by USA Federal Supply Service.

**0.3** 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\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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### 1. SCOPE

**1.1** This standard covers the requirements for glass pliers for handling plate glass.

### 2. NOMENCLATURE

**2.1** For the purpose of this standard, the nomenclature as given in IS : 2615-1964† shall apply.

### 3. GENERAL REQUIREMENTS

**3.1** The material, manufacture, workmanship and finish, tests, preservation and packing, and sampling shall conform to IS : 2615-1964†.

**3.2** The pliers shall firmly grasp plate glass along the full width of the jaw. With the pliers in the closed position, the jaws shall contact each other only at their outermost end.

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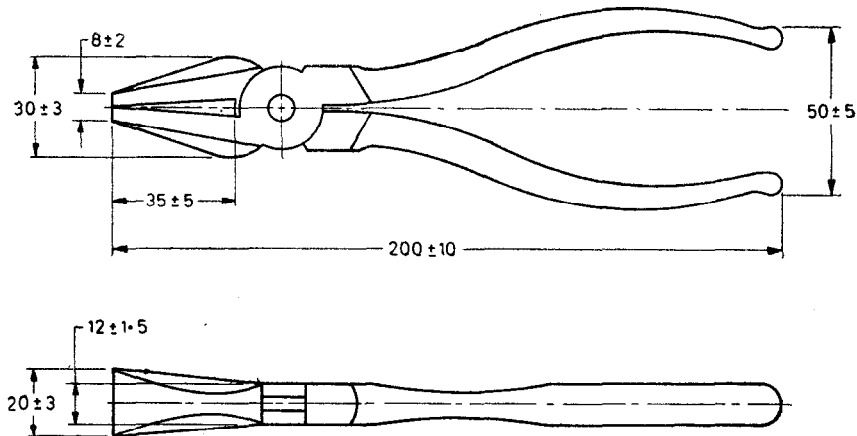
\*Rules for rounding off numerical values (*revised*).

†General requirements for pliers, pincers and nippers.

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#### 4. DIMENSIONS

4.1 The main dimensions for glass pliers shall be as given in Fig. 1.



All dimensions in millimetres.

FIG. 1 DIMENSIONS FOR GLASS PLIERS

4.1.1 With the jaws of the pliers opened so that the jaw surfaces are parallel, the jaw opening shall be not less than 11 mm and not more than 13 mm.

#### 5. HARDNESS

5.1 The jaws of pliers shall have a hardness value within the range of 450 to 700 HV (see IS : 1501-1968\*) or its equivalent in other scales.

5.1.1 The hardness shall be tested as specified in IS : 2615-1964†.

#### 6. MARKING

6.1 The pliers shall be clearly and legibly stamped with the manufacturer's name, initials and recognized trade-mark, if any, and year of manufacture, if required by the purchaser.

\*Method for Vickers hardness test for steel (first revision).

†General requirements for pliers, pincers and nippers.



**6.1.1** The pliers may also be marked with the ISI Certification Mark.

**NOTE** — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

**7. TESTS**

**7.1** In addition to the tests specified in IS : 2615-1964\*, the following test shall also be carried out.

**7.1.1 Handle Load Test** — The pliers shall be tested for deflection and permanent set in accordance with 9.5 of IS : 2615-1964\*. With a flat steel insert of 11 mm thick between the jaws at their outermost end, and a moment of 8.5 kgf.m applied to the handles, the handle deflection under the moment shall not exceed 13 mm and the permanent set of the handles shall not exceed 3 mm.

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\*General requirements for pliers, pincers and nippers.

## ON

**IS:**

Rs

273-1961	Picks and beaters ( <i>revised</i> )	...	...	...	3:00
274 ( Parts I & II )-1966	Shovels ( <i>second revision</i> )	...	...	...	3:50
402-1964	Chisels ( <i>revised</i> )	...	...	...	4:00
413-1965	Punches round ( <i>revised</i> )	...	...	...	1:50
510-1964	Blacksmith's anvils ( cast steel ) ( <i>revised</i> )	...	...	...	2:50
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663-1964	Adzes ( <i>revised</i> )	...	...	...	2:00
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704-1968	Crow bars and claw bars ( <i>first revision</i> )	...	...	...	4:00
841-1968	Hand hammers ( <i>first revision</i> )	...	...	...	6:50
842-1968	Smith's swages ( <i>first revision</i> )	...	...	...	5:00
843-1968	Smith's tongs ( <i>first revision</i> )	...	...	...	5:00
844-1962	Screw drivers	...	...	...	5:50
845-1961	Swage blocks and stands	...	...	...	2:00
846-1968	Smith's flatters ( <i>first revision</i> )	...	...	...	3:50
847-1968	Smith's fullers ( <i>first revision</i> )	...	...	...	4:00
1759-1961	<b>POWRAHS</b>	...	...	...	4:50
1930-1961	Wood working chisels and gouges	...	...	...	3:50
1931-1962	Engineers' files	...	...	...	7:00
2027-1967	Width across flats for spanners ( <i>first revision</i> )	...	...	...	2:00
2028-1968	Open jaw spanners ( <i>first revision</i> )	...	...	...	5:00
2029-1962	Ring spanners	...	...	...	2:00
2030-1962	Box spanners	...	...	...	2:00
2586-1964	Bench vices ( machinist's vices )...	...	...	...	4:00
2587-1964	Pipe vices ( open side type and fixed sides type )	...	...	...	2:00
2588-1964	Blacksmith's vices	...	...	...	2:00
2615-1964	General requirements for pliers, pincers and nippers	...	...	...	4:50
2852-1964	Carpenter's augers	...	...	...	2:00
2989-1965	Keys for lathe chucks	...	...	...	2:00
3082-1965	Hexagonal keys for socket hand screws	...	...	...	1:50
3152-1965	Needle files	...	...	...	2:00
3529-1966	Eyelet pliers	...	...	...	1:00
3552-1966	Flat nose pliers	...	...	...	1:50
3568-1966	Round nose pliers	...	...	...	1:50
3569-1966	Burner pliers	...	...	...	1:00
3587-1966	Rasps	...	...	...	3:50
3650-1966	Combination side cutting pliers	...	...	...	1:00
4003-1967	Pipe wrenches	...	...	...	4:00
4017-1967	Carpenters' squares	...	...	...	2:50
4057-1967	Carpenters' metal bodied bench planes	...	...	...	5:00
4095-1967	Carpenters' pincers	...	...	...	2:00
4123-1967	Chain pipe wrenches	...	...	...	3:50
4378-1967	Nippers	...	...	...	2:50
4481-1968	Duckbill pliers	...	...	...	2:00
4485-1968	Track spanners for railways	...	...	...	2:50
4500-1967	Pipe wrenches, foot print type	...	...	...	4:00
4506-1968	Ballast forks	...	...	...	3:50
4508-1968	Shortened single ended open jaw spanners	...	...	...	3:50
4509-1968	Shortened single ended ring spanners	...	...	...	3:50
4806-1968	Heat coil pliers	...	...	...	2:00
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