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IS 8761 (1978): steel folding cots [CED 35: Furniture]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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SPECIFICATION FOR STEEL FOLDING COTS

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Indian Standard

SPECIFICATION FOR STEEL FOLDING COTS

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SPECIFICATION FOR STEEL FOLDING COTS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 27 February 1978, after the draft finalized by the Furniture Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 The fast changing developments and innovations in designs have brought new concepts in designing furniture, where shortage of living space is effectively solved by such furniture items having folding arrangement so that these could be stored in folding condition while not in use. The popularity of folding cot further increases due to the fact that large quantities of such cots can be stored and transported with comparative ease.

0.3 This standard contains clause **9.1** which requires the purchaser to supply certain technical information at the time of placing orders.

0.4 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 : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers requirements of materials, dimensions, construction and finish of steel folding cots.

2. MATERIALS

2.1 Steel Tubes — Steel tubes shall conform to IS : 7138-1973†.

2.2 Mild Steel Rounds and Flats — Mild steel rounds and flats shall conform to IS : 1977-1969‡.

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

†Specification for steel tubes for furniture purposes.

‡Specification for structural steel (*ordinary quality*) (*first revision*).

2.3 Mild Steel Sheets — Mild steel sheets shall conform to IS : 513-1973*, or IS : 1079-1973†.

2.4 Electrodes and Filler Rods — The welding electrodes and filler rods for gas and arc welding shall conform to IS : 1278-1972‡, IS : 814 (Part I)-1974§ and IS : 814 (Part II)-1974||.

2.5 Mild Steel Angles and Channels — Mild steel for angles and channels shall conform to IS : 1977-1969¶. Mild steel angles shall conform to IS : 808-1964**.

3. DIMENSIONS AND TOLERANCES

3.1 Dimensions — The dimensions of steel folding cots shall be as follows (see Fig. 1):

Length	1 830 or 1 890 mm
Width	760 mm
Height	400 mm

3.2 Tolerances — The dimensions specified in 3.1 shall not vary by more than ± 5 mm.

4. MANUFACTURE

4.1 Frame — The frame for folding cots shall be made from steel tubular pipes of wall thickness not less than 2 mm and 25 mm as outside diameter or from mild steel angles of 40 × 40 × 3 mm section or from mild steel unequal channel section as in Fig. 2. The frame shall not have more than two joints. In case of tubular pipe frame a piece of pipe shall be inserted in the joint with outer diameter equal to inside diameter of the tubular frame and then the joint shall be secured by welding. The inside radius at bends shall not be more than 150 mm and the tube shall be bent without causing any cracks, unevenness or other defects in the bend. A hole of 10 mm diameter shall be provided at the centre of each bend for fixing mosquito curtain frame.

*Specification for cold rolled carbon steel sheets (*second revision*).

†Specification for hot rolled carbon steel sheets (*third revision*).

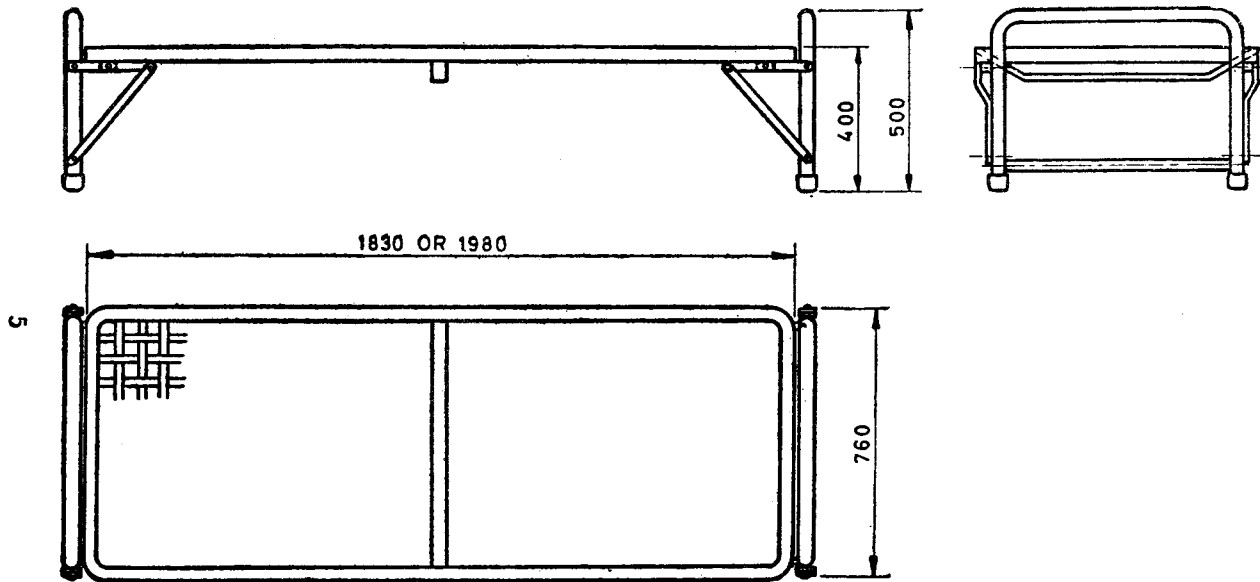
‡Specification for filler rods and wires for gas welding (*second revision*).

§Specification for covered electrodes for metal arc welding for structural steel: Part I For welding products other than sheets (*fourth revision*).

||Specification for covered electrodes for metal arc welding for structural steel: Part II For welding sheets (*fourth revision*).

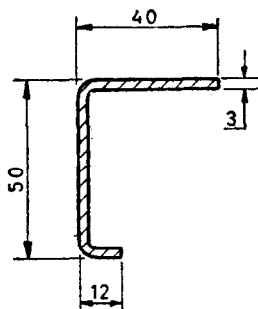
¶Specification for structural steel (ordinary quality) (*first revision*).

**Specification for rolled steel beam, channel and angle sections (*revised*).



All dimensions in millimetres.

FIG. 1 TYPICAL SKETCH OF STEEL FOLDING COT



All dimensions in millimetres.

FIG. 2 DETAIL OF UNEQUAL CHANNEL SECTION

4.2 Legs — Legs shall be made from steel tubular pipe of not less than 1.25 mm in thickness and 25 mm outside diameter or from mild steel angles of $40 \times 40 \times 4$ mm section. For strength and rigidity the legs on each side shall be cross connected with tubular pipe of not less than 1.2 mm in thickness and 15 mm outside diameter or mild steel angle of $40 \times 40 \times 4$ mm section. The legs may be fitted with spring clamps for holding the legs with frame in the folded position when not in use. The free end of the legs shall be fitted with replaceable shoes made of good quality plastic or rubber.

4.3 NEWAR used for knitting of folding cots shall not be less than 50 mm in width and shall conform to IS : 1895-1970*.

5. ASSEMBLY

5.1 The components shall be assembled by means of welding or rivetting.

5.2 The method of gas and arc welding shall conform to IS : 1323-1966† and IS : 816-1969‡ respectively.

6. FINISH

6.1 All sharp edges shall be removed from the various components. The components shall be individually pickled, scrubbed and rinsed to remove grease, rust, scale or any other foreign matter.

*Specification for cotton tape *NEWAR*, grey or dyed (*first revision*).

†Code of practice for oxy-acetylene welding for structural work in mild steel (*revised*).

‡Code of practice for use of metal arc welding for general construction in mild steel (*first revision*).

6.2 Immediately after pickling mild steel components shall be given phosphating treatment conforming to Class C of IS : 3618-1966*. The process for application of phosphate coating shall be in accordance with IS : 6005-1970†.

NOTE — Putty shall be applied to all the surfaces requiring filling and shall conform to IS : 426-1961‡. Aluminium primer shall conform to IS : 2931-1964§.

6.3 Coat/coats of enamel paint shall then be applied as follows:

- a) Finish coat with enamels conforming to IS : 151-1950||, IS : 2932-1975¶ or IS : 2933-1975**, and
- b) In case of stoving enamel the components shall thereafter be baked at a specified temperature in an oven heated uniformly. The finish shall be smooth and uniform with a hard and tough film of enamel strongly adhering to the surface. The finish shall be free from all visible defects and shall not chip when tapped lightly with a dull pointed instrument.

7. PERFORMANCE REQUIREMENTS OF FINISH

7.1 Scratch Hardness Test—A sample of mild steel plate 150 × 50 mm in size and thickness 0.315 mm finished as given in 6 shall be subjected to scratch hardness test in accordance with 15.1 of IS : 101-1964††. A scratch, showing the bare metal, shall not be produced on the test sample.

7.2 Pressure Test—Samples prepared from mild steel plates of thickness 0.315 mm and finished as given in 6 shall be subjected to pressure test in accordance with 15.2 of IS : 101-1964††. The metal surface shall not be rendered visible when the test pieces are separated after the test.

7.3 Flexibility and Adhesion Test—A sample of mild steel plate 150 × 50 mm in size and thickness 0.315 mm finished as given in 6 shall be subjected to flexibility and adhesion test in accordance with 16 of IS : 101-1964††. The paint film on the test piece shall not show damage, detachment or cracking when examined under × 10 magnification.

*Specification for phosphate treatment of iron and steel for protection against corrosion.

†Code of practice for phosphating of iron and steel.

‡Specification for paste filler for colour coats (revised).

§Specification for ready mixed paint, brushing, aluminium-zinc oxide composite primer.

||Specification for ready mixed paint, spraying, finishing, stoving, enamel, for general purposes, colour as required.

¶Specification for enamel, synthetic, exterior, (a) undercoating, (b) finishing (first revision).

**Specification for enamel, exterior, (a) undercoating, (b) finishing (first revision).

††Methods of test for ready mixed paints and enamels (second revision).

7.4 Stripping Test — A sample of mild steel plate 150 × 50 mm in size and thickness 0.315 mm finished as given in 6 shall be subjected to stripping test in accordance with 17 of IS:101-1964*. The scratch produced after the test shall be free from jagged edges.

7.5 Test for Protection Against Corrosion under Conditions of Condensation — A mild steel panel of size 150 × 100 mm and thickness 1.25 mm finished as given in 6 shall be subjected to test for protection against corrosion under conditions of condensation in accordance with 18 of IS:101-1964*. The metal surface shall show no signs of corrosion after the test.

8. PACKING

8.1 All the component parts shall be packed in such a way that no damage is caused to them during transit.

9. INFORMATION TO BE SUPPLIED

9.1 The purchaser shall supply the following information to the supplier along with the order:

- a) Whether spring clamps are required or not;
- b) Whether *NEWAR* is required or not;
- c) Where alternative methods of construction and finish are specified they shall be clearly stated in the order; and
- d) Whether frame and legs should be of tubes, angle or channel sections or a combination of the sections.

10. MARKING

10.1 All steel folding cots shall be marked with the suitable mark identifying the manufacturer.

10.2 The steel folding cots 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. The ISI 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 which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. 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.

*Methods of test for ready mixed paints and enamels (second revision).

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