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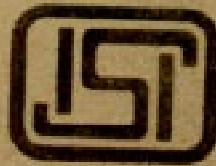
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Indian Standard
SPECIFICATION FOR
FLUSH DROP HANDLE FOR DRAWERS

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SPECIFICATION FOR FLUSH DROP HANDLE FOR DRAWERS

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Indian Standard

SPECIFICATION FOR FLUSH DROP HANDLE FOR DRAWERS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 29 February 1980, after the draft finalized by the Builder's Hardware Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 The flush drop handle is used in drawers where the handle does not protrude and is in the same plane as the drawer. This standard has been prepared with a view to covering the basic requirements of the flush drop handle.

0.3 While issuing this standard the Sectional Committee took note of the acute scarcity of non-ferrous materials like copper, zinc and their alloys in the country and the need for conserving the use of the same in the national interest. However, in view of the demand for hardware items made of these materials in overseas market the Sectional Committee has retained them specifically to meet the requirements of export trade. For all indigenous use it is recommended that hardware items made out of these materials should not be used.

0.4 In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

0.5 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 lays down the requirement for material, dimension, manufacture and finish of flush drop handle for drawers.

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

2. MATERIAL

2.1 The material used for the manufacture of flush drop handles shall comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR MATERIALS FOR FLUSH DROP HANDLES

(Clauses 2.1 and 6.1)

MATERIAL	SUITABLE GRADE IN INDIAN STANDARD
Mild steel	Grade 0 of IS : 1079-1973*
Brass sheet	Grade CuZn 40 of IS : 410-1977†
Cast brass	Grade 3 of IS : 292-1961‡
Aluminium alloy sheet	Designation 52000 or 65032 of IS : 737-1974§
Aluminium alloy die casting	Designation 4600 or 5230 of IS : 617-1975
Aluminium alloy extruded sections	IS : 733-1975¶
Mild steel wire	‡ H of IS : 280-1972**
Brass wire	IS : 4413-1967††
Malleable iron	Grade A or B of IS : 2108-1977‡‡

*Specification for hot rolled carbon steel sheet and strip (*third revision*).

†Specification for cold rolled brass, sheet, strip and foil (*third revision*).

‡Specification for brass ingots and castings (*revised*).

§Specification for wrought aluminium and aluminium alloys, sheet and strip (for general engineering purposes) (*second revision*).

||Specification for aluminium and aluminium alloy ingots and castings for general engineering purposes (*second revision*).

¶Specification for wrought aluminium and aluminium alloy bars, rods, and sections (for general engineering purposes) (*second revision*).

**Specification for mild steel wire for general engineering purposes (*second revision*).

††Specification for brass wires for general engineering purposes.

‡‡Specification for blackheart malleable iron castings (*first revision*).

3. TYPES

3.1 The flush drop handles shall be of the following types:

Type I — Drop handles with fixing holes, and

Type II — Drop handles without fixing holes.

NOTE — The handles may be in recess above or below.

4. SIZES

4.1 The sizes of the flush drop handles shall be 75 and 100 mm.

4.1.1 The size of the handle shall be denoted by the overall length of the body plate.

4.2 The flush drop handle of size other than those specified in **4.1** may be supplied by agreement between the purchaser and the manufacturer.

5. DIMENSIONS

5.1 The leading dimensions of the flush drop handles shall conform to Table 2 read with Fig. 1.

NOTE — The shape of the flush drop handle is only illustrative but the dimension and minimum requirements are binding.

TABLE 2 DIMENSIONS OF FLUSH DROP HANDLES

(All dimensions in millimetre.)

SL No.	SIZE	A	B	C ₁	C ₂	E ₁	E ₂	d	t	SCREW HOLES	
		Min	Min	Min	Min	Min	Min	Min	Min	No.	Size Designation of Countersunk Head Wood Screw (see IS : 6760-1972*)
i)	75	75	50	60	35	35	20	5†	1.5	4	6
ii)	100	100	75	85	60	60	25	8†	1.5	4	6

*Specification for slotted countersunk head wood screws.

†Recommended and not mandatory.

6. MANUFACTURE

6.1 The flush drop handles shall essentially consist of a body plate having a recess and a handle fixed to the plate. The handle shall be fixed in such a way that it can rest on the recess and its movement is free and easy. The body plate shall be of either cast brass or brass sheet, or aluminium alloy casting or aluminium alloy sheet or mild steel sheet and shall be of rectangular shape. It shall have four holes drilled at four corners to facilitate fixing. All screw holes shall be clean and countersunk to suit countersunk wood screws of number specified in Table 1. The handles shall be well made and shall be free from defects. All sharp edges and corners shall be removed.

7. FINISH

7.1 Mild Steel flush drop handles shall be stove enamelled black. Aluminium alloy flush drop handles shall be anodized to a bright, natural, mat or satin finish or dyed. The anodic coating shall not be less than Grade AC 10 of IS : 1868-1968*. Brass flush drop handles shall have

*Specification for anodic coating on aluminium (first revision).

bright satin finish, nickel plated or copper oxidized or bronze finish as specified by the purchaser.

8. MARKING

8.1 Each flush drop handle shall be clearly and permanently marked with the name of the manufacturer or his trade-mark.

8.1.1 The handles 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.

9. PACKING

9.1 Each flush drop handle shall be wrapped in a thin paper and packed in cardboard boxes.

9.2 Each box shall be marked with the following information:

- a) Manufacturer's name or trade-mark,
- b) Size of the handle,
- c) Quantity, and
- d) Type.

10. SAMPLING AND CRITERION FOR CONFORMITY

10.1 The method of selecting flush drop handles and the criterion for conformity shall be as given in Appendix A.

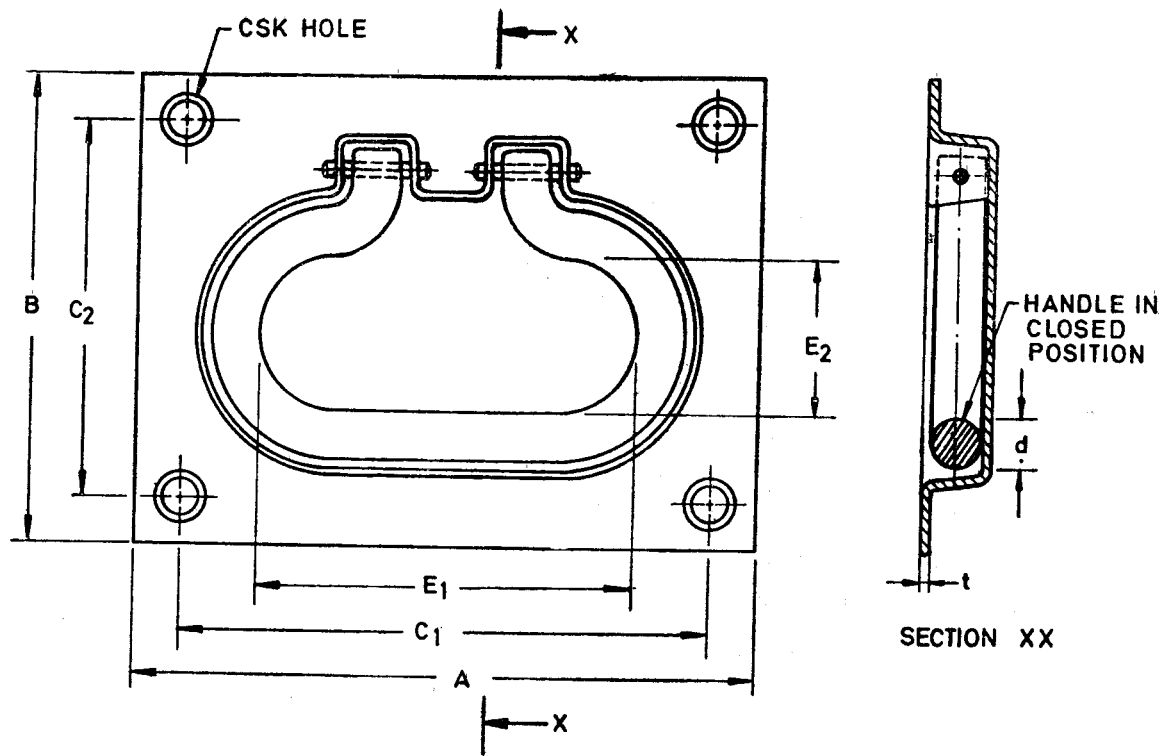


FIG. 1 TYPICAL FLUSH DROP HANDLE FOR DRAWERS

A P P E N D I X A*(Clause 10.1)***SAMPLING OF FLUSH DROP HANDLES****A-1. SCALE OF SAMPLING**

A-1.1 Lot — In any consignment all the flush drop handles of the same type, shape, size and manufactured from similar materials under identical conditions shall be grouped together to constitute a lot.

A-1.2 Sample Size — The number of flush drop handles to be selected from a lot shall depend on the size of the lot and shall be in accordance with col 1 and 2 of Table 3.

A-1.3 These flush drop handles shall be selected at random from at least 10 percent of the randomly selected packages subject to a minimum of three, equal number of flush drop handles being selected from each such package.

TABLE 3 SCALE OF SAMPLING AND CRITERION FOR CONFORMITY

(Clauses A-1.2 and A-3.1)

LOT SIZE	SAMPLE SIZE	PERMISSIBLE NUMBER OF DEFECTIVE HANDLES
(1)	(2)	(3)
Up to 100	5	0
101 to 300	20	1
301 to 500	32	2
501 to 1 000	50	3
1 001 and above	80	5

A-2. NUMBER OF TESTS

A-2.1 All the flush drop handles selected as in **A-1.2** shall be checked for material, dimensional requirements, manufacture and finish. Any flush drop handle which fails to satisfy any one or more of these requirements shall be considered a defective flush drop handle.

A-3. CRITERION FOR CONFORMITY

A-3.1 A lot shall be considered as conforming to the requirement of this standard if the number of defective flush drop handles among those tested does not exceed the corresponding number given in col 3 of Table 3.