



PLANT STANDARD HYDERABAD

HY7433661

Rev. No. 00

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GI CABLE TRAYS AND ACCESSORIES

1. SCOPE:

This specification governs the quality requirements of design, manufacture, testing, packing at manufacturers' work and delivery at site of various Cable Trays and accessories, as per requirements spelt out in this specification and complete in all respect.

2. APPLICABLE STANDARDS:

The cable trays and accessories shall comply to the latest edition of applicable Indian standards but not limited to the following:

- IS-513: For cold rolled low carbon steel sheets and strips.
- IS-816: For use of metal arc welding and for general construction in MS.
- IS-1079: For hot rolled carbon steel sheets and strips specifications.
- IS-2629: For practice of hot dip galvanising & adhesion test
- IS-1363: For heat bolts, screws and nuts.
- IS-1367: For threaded steel fasteners.
- IS-5986: For hot rolled steel plates, sheets, strips and flats for flanging & forming operation.

3. CONSTRUCTIONAL REQUIREMENTS:

- a) All materials and hardwares to be supplied by the contractor shall be new , unused and of best quality and it shall confirm to the latest specifications of Bureau of Indian Standards
- b) The cable trays and accessories such as coupler plates, Tees, horizontal cross, elbows and covers shall have rigid welded constructions and shall be fabricated out of minimum 2mm thick hot rolled sheet steel.
- c) The rungs shall be welded to the side runners in ladder type cable trays.
- d) Hot dip galvanizing shall be done after fabrication as per relevant Indian standards. The amount of galvanizing shall be min. 610 g/m².
- e) All the finished cable trays and accessories shall be free from sharp edges, corners, burrs and unevenness.

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f) Cable trays shall be suitable for a cable weight of 75kg/m of running length of tray and additionally it shall also be suitable for point load of 75kg(equivalent to weight of a man working on the cable tray).

g) All hardware and fittings like bolts, nuts, washers etc. shall be hard chrome or Cadmium plated or Zinc passivated.

h) No negative tolerance is acceptable. However a positive tolerance of 2mm (Max) will be acceptable for different types of cable trays only and not for coupler plates and other assemblies.

i) Constructional, dimensional and sectional details of various types of GI cable trays and accessories are shown in the following enclosed specifications.

Ladder Type Cable Trays & Accessories (Channel design, Type-1) : HY7433662

Ladder Type Cable Trays & Accessories (Channel design, Type-2) : HY7433663

Ladder Type Cable Trays & Accessories (Angular design, Type-3) : HY7433664

Perforated Type Cable Trays & Accessories : HY7433665

Solid Bottom Cable Trays & Accessories : HY7433666

4. INSPECTIONS AND TESTS:

a) The following tests shall be carried out on all types of cable trays and accessories.

(i) Test for thickness of Galvanized coating by Elcometer.

(ii) Test for mass of Galvanized coating by stripping test.

(iii) Test for determination of uniformity of Galvanized coating.

(iv) Load test for uniform point loading

b) Visual inspection for conformance of dimensional details and materials and etc, shall be carried out at manufacturer's works in presence of owner's/customer's/customer consultant's representative before dispatch of materials.

c) Inspection call shall be given to owner 15 days in advance for witnessing the inspection.

d) It shall be bidder's responsibility to obtain owners/customer's/customer consultant's Final approval (without any comments) on the drawings before inspection call is given.

5. DOCUMENTATION:

a) Two sets of all relevant drawings, technical data sheets, routine and type test certificates, catalogues shall be furnished along with the technical bid.



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- b) 12 sets of above mentioned documents shall be submitted to owner for approval within 1 week from date of placement of Purchase order.
- c) The drawings and technical data sheets shall be submitted in the format provided by BHEL.

Notes:

- I No deviation is allowed on the above mentioned technical requirements and Bidder shall furnish clause wise confirmation to all the points listed above.
- II For sectional, dimensional & constructional details of Ladder Type Cable Trays and accessories: Refer attached Annexure.
- III Bidder shall submit all relevant sectional details (drawings) of main cable trays and all associated accessories like bends, elbows, tees, cross and etc along with the technical Bid for owner's evaluation.
Technical bids without the above details will not be evaluated likely to be rejected technically.
- IV After award of PO bidder shall furnish all the required drawings for owner's approval. Bidder shall necessarily obtain Manufacturing Clearances on the drawings from Owner, before taking up manufacturing activities.