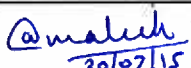


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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.			<u>TECHNICAL SPECIFICATIONS FOR GI CABLE /TUBES DUCTS AND ACCESSORIES</u> 1. SCOPE: This specification governs the quality requirements of design, manufacture, testing, packing at manufacturer's work and delivery at site of various cable ducts and accessories, as per requirements spelt out in this specification and complete in all respect. 2. APPLICABLE STANDARDS: The cable ducts 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 galvanizing & 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 hardware to be supplied by the contractor shall be new, unused and of best quality and it shall conform to the latest specifications of Bureau of Indian Standards. b) Standard minimum straight length of duct and cover shall be 2500mm. c) Duct shall be fabricated out of standard size of angles, flats, rods and sheets /plates as per Indian standards. d) Within the duct, the partition height shall be up to the duct cover, providing bottom support to the cover to prevent sagging. e) The cable ducts and accessories such as joining plates, Tees, elbows, reducers, duct bridges (jump-over) and covers shall have rigid welded constructions and shall be fabricated out of minimum 3.2mm thick hot rolled sheet steel.			
Ref. Doc		Revisions: Refer to record of revisions :	Prepared:  K V NAGENDRA REDDY	Checked:  SESHU KIRAN.G	Approved:  ABU MALICK	Date: 30.07.15

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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED . It must not be used directly or indirectly in any way detrimental to the interest of the company.			f) Hot dip galvanizing shall be done after fabrication as per relevant Indian standards. The amount of galvanizing shall be min. 610 g/m². g) All the finished cable ducts and accessories shall be free from sharp edges, corners, burrs and unevenness and welding shall be of good quality. h) All hardware and fittings like bolts, nuts, washers etc. shall be carbon steel zinc /cadmium plated. i) No negative tolerance is acceptable. However, a positive tolerance of 2mm (Max) will be acceptable for different types of partition sheets only and not for joining plates and other assemblies. j) The cable ducts (straight run, tees, elbows, reducers, duct bridges etc) has to neatly labeled with paint on side runners (i.e. M-Path, N-Path). k) Constructional, dimensional and sectional details of various types of cable /tube ducts and accessories are shown in the following enclosed specifications. i. Cable Ducts Fabrication Details and Accessories (Category-1) : PY 55148 ii. Cable Ducts Fabrication Details and Accessories (Category-1) : PY 55149 iii. Cable /Tube Ducts Fabrication Details and Accessories (Category-2) : PY55150 iv. Cable /Tube Ducts Fabrication Details and Accessories (Category-2) : PY55151	
			4. INSPECTION AND TESTS: a) The following tests shall be carried out on all types of cable ducts 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. 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.				
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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED . It must not be used directly or indirectly in any way detrimental to the interest of the company.	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. Bidder shall submit all relevant sectional details (drawings) of cable ducts and all associated accessories like bends, elbows, tees, reducers, duct bridges (jump-over) bid for owner's evaluation. Technically bid without the above details will not be evaluated likely to be rejected technically. III. 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.						
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	00	30/07/15	Original Issue	---	 30/07/15 ABU MALICK
	Ref.				