

**TELANGANA STATE POWER GENERATION  
CORPORATION LIMITED**

**4X270MW BHADRADRI TPS (FGD)**

**VOLUME -II**


***TECHNICAL SPECIFICATION  
FOR  
MS ROD FOR BELOW GROUND  
EARTHING***

**SPECIFICATION NO: PE-TS-440-509-E001  
REVISION: 00**




**BHARAT HEAVY ELECTRICALS LIMITED  
POWER SECTOR  
PROJECT ENGINEERING MANAGEMENT  
NOIDA, UP (INDIA) – 201301**

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	DOCUMENT TITLE  TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING	SPECIFICATION NO. PE-TS- 440-509-E001	
		VOLUME II	
		REVISION - 0	DATE: 07.01.2022
		SHEET 2	

## STANDARD TECHNICAL REQUIREMENTS

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## TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING

### 1.0 INTENT OF THE SPECIFICATION

- 1.1 This specification covers the design, manufacture, inspection & testing, packing at manufacturer's works and delivery to site of MS ROD FOR BELOW GROUND EARTHING.
- 1.2 The intent of specification is not to specify all details of design & construction of material. The material shall, however, conform in all aspects to high standard of design, engineering and workmanship and be capable of performing in continuous operation up to & after bidder's guarantee period in manner acceptable to purchaser who will interpret the drawings & specification and shall have power to reject any work or material which in his judgement is not in full accordance with this specification.

### 2.0 CODES & STANDARDS

- 2.1 The material shall comply with all currently applicable safety codes and statutory regulations of India as well as of the locality where the material is to be installed.
- 2.2 Applicable Standards (Latest amendment to be referred): -
- IS 2062, Grade E250 Sub-Quality A: Hot Rolled Low, Medium and High Tensile Structural Steel.
  - ASTM A 510M Grade No. 1010 (SAE No. 1010) /1018 (SAE No. 1018) /1020 (SAE No.1020): Standard Specification for general requirements of wire rods and coarse round wire, carbon steel.
  - IS 1875, Designation 15C8: Carbon Steel Billets, Blooms, Slabs and bars for forging – Specification.

### 3.0 TECHNICAL REQUIREMENTS

- 3.1 Straight lengths of MS rods of standard diameter of 40 mm in minimum length of 9 m shall be supplied.
- 3.2 All finished MS rods for Below Ground Earthing shall be free from sharp edges, corners, burs & unevenness.
- 3.3 Bidder to supply order quantity indicated in the Technical Specification. Overall tolerance on total dispatched quantity shall be restricted to +/- 3% in line with IS 2062.

### 4.0 QUALITY / INSPECTION

- 4.1 The supplier shall perform all tests necessary to ensure that the material and workmanship conform to the relevant standards and comply with the requirements of this specification.
- 4.2 The tests shall be in accordance with relevant Indian/American standards. The extent of the tests to be performed by the supplier shall include but not be limited to the following: -
- Routine Tests:
    - Tests for Chemical Composition
    - Test for Mechanical Properties.

Necessary Test Certificates shall be submitted to BHEL for review before actual dispatch of material.

### 5.0 PACKING

The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.

### 6.0 BOQ FOR BELOW GROUND EARTHING (MS ROD)

40MM DIA MS ROD – 32 MT

Note- Vendor shall submit the dates for drawing/document submission/BHEL comments/resubmission/approval after approval of documents.



TECHNICAL SPECIFICATION FOR  
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**SCOPE MATRIX FOR MS ROD**

Sr. No.	Activities	Manufacturer	Bidder/ Associate	Remarks
1.	Source of Supply	Material is to be dispatched directly from the place of manufacturer (works / storage yard) of MS Rod to the project sites without any transshipment.	-----	Consignors Name & address on dispatch documents shall be of Manufacturer (works / storage yard) from where the material is dispatched.
2.	Testing/ Inspection			
3.	Guarantee/ Warrantee			
4.	Transportation			

Bidder to furnished duly filled in signed & stamped copy of scope matrix for broad activities