

Specification	SPECIAL TERMS AND CONDITION FOR PROCUREMENT OF RETENTION TANK SYSTEM FOR IR BG COACHES	MDTS 224 REV-05 PAGE 5 OF 9 DATED 10.05.2013
---------------	---	--

## Annexure-A

### Infrastructure Requirements

1. Separate covered area for manufacturing of stainless steel components to avoid iron contaminations and also having adequate space underneath for storage of raw materials. The covered area should have display board showing different colour shades nominated to different grades of steel to avoid mix up of materials.
2. Either at least one CNC laser profile cutting machine in working order in-house.

OR

- Should have a valid tie-up in the form of MoU with the agency, having in-house CNC laser cutting machine in working order, for cutting components of bio-digesters. A copy of MoU to be submitted along with the tender. During inspection of material, the firm should be able to submit documentary evidence in form of challan, invoice, transport bill etc, in support of having cut the components from CNC profile laser cutting machine from outside agency. Railway or inspecting agency on behalf of railways may visit/verify the availability and use of laser cut machine with tied up agency.
3. Adequate drilling facilities of suitable capacities and standard make should be available.
4. The firm shall have at least one press brake of suitable capacity along-with punch and dies for component forming.
5. Only TIG welding with Argon shielding gas should be used for fabrication of tanks. For this minimum two TIG welding plants should be available with the tenderer.
6. Adequate Nos. of hand grinders for removal of fins & burrs shall be available.
7. Handling equipments such as slings, hooks and lift truck forks should be protected with clean wood, cloth or plastic buffers to reduce contact with the iron surface.
8. Proof of procurement of raw material from reputed stainless steel manufacturer and their test certificate shall be enclosed by inspection agency along-with the inspection certificate.
9. The raw materials e.g. electrodes and hardware should be procured from the authorized distributor of original manufacturer and firm should procure material with test certificate.
10. The welder shall have adequate experience of the same type of welding.
11. The fabricator shall have adequate fabrication and process capability to obtain all the tolerances and geometrical tolerances and shall have arrangement of jig/fixture/clamping device for main assembly & sub-assembly work.
12. The firm should have the immersion tanks with FRP lining for acid cleaning, neutralization and water rinsing.

#### 13. Testing Facilities:

- a. Chemical Lab: The firm shall be ready for carrying out spectrographic analysis of the material from NABL certified Lab at their own expense as and when required.
- b. Physical Testing Lab: The firm shall be ready for carrying out testing for UTS, Yield strength from NABL certified Lab at their own expense as and when required.
- c. Other Testing Facilities: The firm shall possess the following:
  - i. The firm shall have suitable arrangement in house for testing the leakage's etc.
  - ii. The firm shall have adequate facilities for preparation of test sample. Facilities like machining, grinding, polishing etc. should be available in house.
  - iii. Adequate number of fine punches for stamping marking particulars on finished components.
  - iv. Adequate numbers of measuring instruments such as:
    - v. Digital Vernier Callipers - 0 mm to 300 mm.
    - vi. Inside & outside Micrometers - Ranging from 0 to 150 mm
    - vii. GO & NO-GO gauges.
    - viii. Profile gauges

-----X-----

Prepared By

*Shankar*

Agreed By

*an.*