
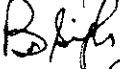
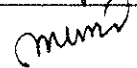
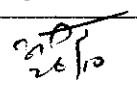
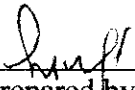


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Name	Designation	Signature	Date	Level
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**1. General:**

This specification covers the technical/infrastructure requirements for seat & berths of LHB and Conventional coaches.

**2. Eligibility Criteria:**

2.1. The tenderer must submit clause-wise comments on the specification. In absence of clause-wise comments, offers shall be deemed as incomplete and may not be considered.

2.2. The manufacturer should have following in-house infrastructure facilities for manufacture and inspection of seat & berths:

- 2.2.1. Separate covered area for manufacturer of seat & berths. The covered area should display board showing different colors nominated to different grade of materials including recron foam, rexine, plywood, steel and other fittings.
- 2.2.2. At least two MIG welding sets (400A or more) with suitable shielding media.
- 2.2.3. At least one pipe bending machine.
- 2.2.4. At least one Laser profile cutting machine or tie-up for Laser cutting.
- 2.2.5. At least one band saw/power hacksaw.
- 2.2.6. Adequate machining facilities such as: lathe, cylindrical grinding machine, circular saw, hand grinder etc.
- 2.2.7. At least one power press.
- 2.2.8. At least one shearing machine of suitable capacity
- 2.2.9. Trimming and stitching facilities.
- 2.2.10. Powder coating, anodizing facilities or Tie-Up.
- 2.2.11. Sand or shot facilities or hot phosphate with seven tank process
- 2.2.12. Priming facilities.
- 2.2.13. Adequate numbers of measuring instruments (along with calibrated certificates) such as: Digital vernier calipers – 0 to 300 mm, Vernier caliper - 0 to 600mm, Measuring scale – 3 meter, Inside & outside micrometers – 0 to 150mm and Measuring tape 3 meter

**2.3. Testing Requirements:**

2.3.1. **Chemical Lab:** The firm shall have its own in-house arrangement for spectro analysis or tie-up with NABL approved Lab.

2.3.2. **Physical Testing Lab:** The firm must possess a well-equipped physical lab with following facilities in house or tie-up with NABL approved labs:

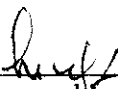
- 2.3.2.1. Universal testing machine of 40t capacity with load/deflection plotting arrangement to conduct UTS etc.

2.4. The manufacturer shall be an ISO: 9001 certified company.

**3. Identification Marking:**

Each unit should have manufacturer's identification mark, serial number and date of manufacturing to facilitate identification/correlation with the inspection/ test result.

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