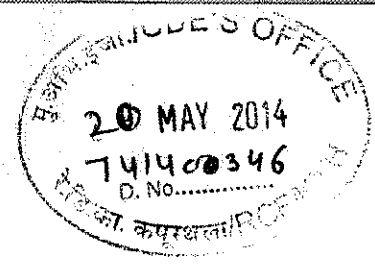


PAGE




RAIL COACH FACTORY KAPURTHALA

MD46171

Dated 17.05.14

SUB: Issue of MDST111 of Honey Comb Partition Frame

The schedule of Infrastructure requirement for Honeycomb Partition frame has been finalized by MDST111 REV 0. The same is being issued so that a reference copy is available for all concerned in Design library and record section


SSE/ Shell (design)

Enclosure One copy of MDST111


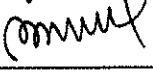
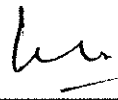
SSE/ Design Library

SSE/Records ✓

Copy to: **(For kind information please without enclosure)**

DY CME/D3

SPECIFICATION	SCHEDULE OF INFRASTRUCTURE REQUIREMENTS FOR HONEY COMB PARTITION FRAME MANUFACTURING	MDST: 111 REV: NIL PAGE 1 OF 5 DATED 12.05.14
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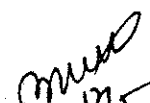
Name	Designation	Signature	Date	Level
Sh.H.P.S.Sodhi	SSE/Shell Design		12/05/14	Prepared
Sh. Lalit Kishore	Dy CME/D-III		12/5/14	Reviewed and Agreed
Sh. Parmanand Singh	CDE		19/5/14	Approved

Issue/Rev	Details of Changes	Date

Prepared By


12/5

Agreed By


17/5

SPECIFICATION	SCHEDULE OF INFRASTRUCTURE REQUIREMENTS FOR HONEY COMB PARTITION FRAME MANUFACTURING	MDST: 111 REV: NIL PAGE 2 OF 5 DATED 12.05.14
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1. Scope:

This schedule describes the minimum infrastructure requirements available at the tenderer's premises in working order for manufacture and testing of Honey comb Partition frame.


2. Eligibility Criteria:

- 2.1. The tenderer must submit detailed clause-wise comments on the specification specifying the availability of infrastructure with them and the firm with whom tie-up has been made along with the capacity and make. In absence of above, offers shall be deemed as incomplete and may not be considered.
- 2.2. Bulk or regular procurement orders shall only be given to the firms who have infrastructure as mentioned in para #3, 4 and 5 of this specification. Firm will be assessed by CDE/RCF wherever required for ascertaining the infrastructure.

3. Infrastructure Requirements:

- 3.1.1. Sufficient space should be available for storing the honey comb core .The required space should be free of dust and suitably ventilated. The space should be free of materials that can act as source of corrosion and contamination for the aluminum core.
- 3.1.2. Proper facilities to store the adhesives at the required temperature and condition as specified by the reputed supplier of adhesives should be available.
- 3.1.3. Proper storage for HPL sheets should be suitably stacked in neat rows in a room
- 3.1.4. Proper facilities for storage of steel sheets which are to be used for inserts should be available.
- 3.1.5. **Honeycomb Core Expansion Facilities:** Firm should have at least one honey comb aluminum core expander of reputed make of size 3mx 3m with adjustment provisions for expanding cores of smaller sizes also.
- 3.1.6. **Handling Requirement Of Core:** Firm should have at least one fork lifter or other transporting device for safe handling of honey comb partition frame during manufacturing stages such as transportation of expanded core to the adhesive application area/pressing area/cutting area and stacking area.
- 3.1.7. **Profile and Cutting Facilities:** Firm should have at least one CNC profile cutting router/ machining centre with suitable handling equipment for profile cutting of expanded core and for creation of cavity for inserts in the expanded core.

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SPECIFICATION	SCHEDULE OF INFRASTRUCTURE REQUIREMENTS FOR HONEY COMB PARTITION FRAME MANUFACTURING	MDST: 111 REV: NIL PAGE 3 OF 5 DATED 12.05.14
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3.1.8. **Pasting Table:** Firm should have at least one table of size 3 x 3 meter with auto glue applicator for application of adhesive and pasting the core with the HPL sheet. The table should have arrangement for fixing of partition frame of variable sizes.

3.1.9. **Edge Trimming Facilities:** Firm should have at least one Jig saw machine for smooth trimming the edges of sandwich honey comb partition frame.

3.1.10. **Pressing Facilities:** Firm should have at least one hydraulic press of reputed make of suitable size with adequate pressure and temperature facilities for pressing the HPL sheet with core to form sandwich construction.

4. Testing Facilities:

4.1. **Chemical Lab:** The tenderer should have in-house arrangement or a permanent arrangement with NABL certified Lab for testing the adhesives, Honey comb core, and inserts for adhering to the specified parameters for the materials.

4.2. **Physical Testing Lab:** The tenderer should have physical lab at firm premises or a permanent arrangement with NABL certified Lab for testing the specimen of Honey comb partition frame as per IS: 11682 1986(Part-2).

4.3. **Must Measuring Instruments with tenderer:** Firm should following measuring instruments, duly calibrated, at firm's premises:

4.3.1. Digital Vernier Calipers - 0 mm to 300 mm.

4.3.2. Measuring scales – 3 meter

4.3.3. Templates for measuring the size of the partition frame.

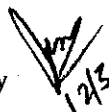
4.3.4. Magnet of suitable size and strength.

5. Testing and Approval Of Prototype:

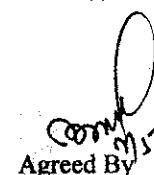
5.1. Tenderer must submit and get approval of Quality Assurance Plan from CDE/RCF before taking up prototype manufacture. Type test/routine test shall be carried out by CDE/RCF or inspecting agency as under:

5.1.1. **Type Tests:** The Type Test shall be conducted for approval of the firm and as a part of audit check/modified specification when required by the purchaser at any point of time. Report of 'TYPE TEST' results witnessed by CDE-RCF/RITES, shall be submitted by the firm before executing first supply. Two samples drawn at random shall be subjected to the test as specified in the Clause-5. In case sample fails, two more samples shall be drawn at random and subjected to the tests as mentioned in the Clause-5. The samples shall pass the test specified or else the entire lot shall be rejected. The lot shall be accepted if the sample passes the tests. In the event of rejection fresh lot shall be offered for type tests.

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5.1.2. **Routine Tests:** Five percent test pieces of a lot for each coach type, selected at random shall be subjected to the tests as specified in clause-5. In case the item/assembly fails, one more sample shall be drawn at random and subjected to the tests mentioned above. The sample shall pass the tests specified or else the entire lot shall be rejected. The lot shall be accepted if the sample passes the tests. In the event of rejection fresh lot shall be offered for tests.

6. Code of Practice for Quality Control and Inspection:

- 6.1. Regular inspection shall be done by inspecting agency as per approved Quality Assurance Plan.
- 6.2. The raw materials should be procured from the authorized distributor of original manufacturer along with their test certificates. These test certificates shall be co-related with the stamping on the raw material taken up for manufacture, prior to commencement of work or with any other adequate alternate system to ensure proper traceability with the raw material.
- 6.3. Wherever test certificates are not available, sample shall be drawn and tested both for chemical composition and physical properties in the presence of Inspecting Agency. All records of physical and chemical tests shall be made available to Inspecting Agency.
- 6.4. The manufacturers shall furnish to the purchasing/ inspecting authorities information in respect of quality control systems in force at their works on various materials used in the manufacture of components.
- 6.5. The manufacturers shall furnish to the Purchasing/ Inspecting authorities the details of tests and inspection records and other relevant records as required under the quality control systems in force.
- 6.6. These records and reports shall be maintained by the Competent Technical Authority of the manufacturer and shall be open to examination by the Purchasing/ Inspecting Authorities at all reasonable time.
- 6.7. Purchasing / Inspecting Authorities at their discretion may select samples of products at any stage of production for conformity tests of raw material at the works of the manufacturer or in an approved laboratory. In case the samples do not conform to the requirements of the specification, double the number of samples from the same lot/batch shall be drawn for re-tests. If any of the re-test samples do not conform to the requirements, the entire lot/batch shall be rejected.

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SPECIFICATION	SCHEDULE OF INFRASTRUCTURE REQUIREMENTS FOR HONEY COMB PARTITION FRAME MANUFACTURING	MDST: 111 REV: NIL PAGE 5 OF 5 DATED 12.05.14
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7. Identification Marking:

Each partition frame shall have the following marking for the ease of identification and trace-ability:

1. Manufacture's Name/Logo
2. Part/Drawing No.
3. Year of Manufacture

8. Packing:

The packing shall be such that partition frames shall be properly protected against rubbing/ impact/scratches during transportation. Each package shall be of convenient mass for easy handling.

9. Warranty:

The manufacturer shall warrant the honey comb partition frame for conformance to quality for a period of 30 months from date of supply or 24 months from date of installation which ever shall be sooner, as per IRS conditions.

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