

**SPECIFICATION FOR HEAVY DUTY PNEUMATIC SANDERS
TECH.SPEC.NO. MECH/M&P/3000/GM/ 04**

1.0 IMPORTANT INSTRUCTIONS TO TENDERERS FOR FILLING TECHNICAL BID

- 1.1 Bidders are required to give clause wise comments on the technical specifications, confirming compliance/non-compliance with details of deviations if any along with their effect on the performance. Back references to be avoided, offers are likely to be ignored in case of non-compliance of these instructions for furnishing the information.
- 1.2 Unless otherwise stated, latest alterations/ revisions of specifications/ standards/ drawings shall be applicable. In respect of safety standards and environmental standards relevant to the machine, the machine manufacturers shall ensure compliance with international (CE/ISO/DIN/JIS)/National standards (IS) (where applicable).
- 1.3 Tenderers should offer and quote for all the specified concomitant accessories, as these are considered essential for commissioning and utilization of the machine. Even if bidder does not recommend the purchase any of these accessories, the price must be quoted for comparison purposes and their recommendation/suggestion indicated in the offer. Tenderers should also quote for optional accessories, spares and consumable spares as asked in the specifications.
- 1.4 In case, any item is required in sets, please specify nos./pieces per set. This is essential for proper technical evaluation of the offer. Offers received without this may be considered as incomplete and liable to be rejected.
- 1.5 The bidder should quote only for the specified make of sub-assemblies and equipment wherever specified. Makes of sub-systems other than the specified ones will normally not be acceptable. In case, some other make is quoted, specific reasons for the same including its features/advantages over specified makes must be brought out in the offer.
- 1.6 In case there is a contradiction in any information provided (some parametric values given in the specification and those given in the brochure or some other document enclosed by the tenderer), unless specifically mentioned in the deviation cum confirmation statement the values as given in the specification shall be taken as confirmed by the tenderer and offer evaluated accordingly.
- 1.7 The Purchaser may accept internationally accepted alternative specifications which ensure equal or higher quality than the specifications mentioned in the Technical Specification. However, the decision of the Purchaser in this regard shall be final.
- 1.8 Purchaser reserves the right to verify the details submitted by the bidder by actual site visits.
- 1.9 Other terms & condition of the contract will be as per Indian Railway Standard conditions of contract.

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2.0 PURPOSE FOR WHICH REQUIRED AND CAPABILITY:

2.1 Capability:

The Heavy Duty Pneumatic Sanders should be capable of removing excessive putty from railway coaches during painting process. The supply shall include all standard equipment as detailed in the specification and any other accessory, whichever manufacturer considered essential to the machine for the full operation when installed and connected to power supply. The machine should be capable for mounting of 5" backing pad with 5 no. holes for extraction of dust.

3.0 DESCRIPTION AND SCOPE OF SUPPLY:

3.1 The specification covers the Heavy Duty Pneumatic Sanders with complete accessories etc. to make the machine fully operational to the required parameters/ capacity, given in Schedule - I. The scope of supply includes the following things:

- i) One Heavy Duty Pneumatic Sander with extraction hose pipe & bag.
- ii) One 5" Velcro type back up pad (must be weight mated with sander).
- iii) One Quick Release coupling $\frac{3}{4}$ " & $\frac{1}{2}$ " nipple.
- iv) 20 mtr Light weight PU Hose pipe 12 mm ID & capable to handle 6.2 bar pressure.
- v) $\frac{3}{8}$ " NPT Reducer with 1558 LPM & 60⁰ maximum temperature for operation.
- vi) Onelitre Lubricating oil as per manufacturer recommended product for tool lubrication for higher performance for each machine.
- vii) Two year normal maintenance consumables as per 8 hours per day.
- viii) Running basis price list (to be supplied along with tool to cover maintenance to tool).

3.2 Machine must be ready to use at the time of commissioning at consignee end.

4.0 COMMISSIONING AND PROVING OUT:

4.1 The successful tenderer shall have to commission the Heavy Duty Pneumatic Sander within one week from the date of receipt at RCF, Kapurthala.

4.2 The successful tenderer shall have to prove out the Performance of Heavy Duty Pneumatic Sander for atleast 10 (Ten) coach shells to the satisfaction of consignee.

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5.0 TECHNICAL LITERATURE:

5.1 One copy of the printed illustrative catalogue showing features of the machine and its elements must be enclosed with each copy of the bid.

5.2 The successful tenderer will have to furnish for each Machine 4 copies of spare parts catalogue giving the part List number of each component with exploded views and assembly drawings, maintenance manual, trouble-shooting guide, operational manual of the machine and all electrical circuit diagrams.

6.0 SPECIAL FEATURES:

6.1 Special features incorporated into the machine, if any, shall be indicated separately by the tenderer, clearly indicating the advantages of these features.

7.0 SPARES AND CONSUMABLES (Optional):-

7.1 List of recommended spares for 2 years normal maintenance to cover the complete range of mechanical and electrical Equipment should be separately quoted.

7.2 List of recommended consumables for two years shall be quoted separately.

7.3 Two years maintenance spares / consumables are also required along with spares.

8.0 DEVIATIONS:

8.1 The tenderer should clearly certify that the machine offered fully meets the specification various design features incorporated in the machine to fulfill different technical performance requirements should be fully explained in the offer. However, minor deviations from this specification, which do not affect or in any way interfere with the stipulated performance standards, or would result in improved safety/reliability or would reduce recurring maintenance/operating cost of the machine, can be considered for acceptance.

8.2 Quick release coupling arrangement should be provided on the inlet hose to couple with the pipe.

9.0 WARRANTY

The warranty condition of contract will be as per IRS conditions.

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SCHEDULE – I

TECHNICAL DATA FOR HEAVY DUTY PNEUMATIC SANDER (RANDOM ORBITAL SANDER)

Sr. No.	Characterstics	Value
1.	Orbit dia	Minimum 10 mm
2.	Grip type	Palm type grip should completely cover the housing with palm-rest platform
3.	Machine speed	Not less then 12000 rpm
4.	Weight of the machine	Not more than 1.0 Kg
5.	Extraction type	Self-vacuum with flex hose & hook closure bag
6.	Vacuum Port Area	Not less than 340 mm ²
7.	Power of machine	Not more than 210watt
8.	Bearing Dust Protection	V Seal Bearing protection
9.	Air consumption	Approx. 18-20 CFM
10.	Air inlet	6mm
11.	Hose Size	12mm OD
12.	Vibration Level	2.05 m/sec ²
13.	Sound Pressure	83 dB (A)
14.	Backing Pad	5", 5 Hole Hookit (mushroom type) weight mated with sander. Pad weight not more than 100 gms with single hub design
15.	Quick Release Coupling	Suitable for fitting to machine at one side and other side with Flexible PU Hose pipe of 12mm ID.

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