

Annexure-1



TECHNICAL SPECIFICATION FOR 24" TURBO VENTILATOR - 76Nos.

ADDRESS OF THE SUPPLIER:

CONTACT PERSON:

MOBILE NO.:

TELEPHONE NOS:

FAX NOS:

E-MAIL ADDRESS:

Sl.No.	Description of Equipment	Offered	Deviations	Remarks
1.0	Supply , Erection and Commissioning of 76 Nos. of 24" Neck Diameter wind Operated Turbo Ventilators with FRP Base plate suitable to Existing profile of Galvanized Sheets in 01 shop of BHEL,Hyd..			
2.0	Technical Details			
2.1	Neck Diameter = 25 " +/- 1 OR 615 +/- 5MM			
2.2	Belly diameter = Vendor to indicate			
2.3	Size of Translucent UV stabilized FRP Base plate = 1845 mm x 990 mm (Approx.)			
2.3.1	The size of the base plate and the profile shall match with the existing galvanized sheets at BHEL,Hyderabad.			
2.4	Opening at the bottom of the Base = 1200 mm X 755 mm. (Approx.)			
2.5	Material of Impeller shaft = EN 24 / (Any Suitable alternative Vendor to indicate)			
2.6	Material of Top cap & Neck ring of Impeller = Stainless steel			
2.7	Material of Vanes = Hi Grade Aluminium			
2.8	Reinforcement Cone 1mm thick alumium alloy 8011 H2 for sturdiness double capping is done with conical dish			
2.9	No. of Vanes = Minimum 40 or Vendor to indicate			
2.10	Special profiled turbo vanes High Grade Aluminium 24 guage Alloy 8011 H2 & these vanes should be light weight & special design in such a way in order to offer least resisitance to air & making it leak proof against even torrential rains			

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2.11	Inclination of roof at BHEL,Hyderabad	= 19 ° to horizontal			
2.12	Central Shaft & Pivot	CS Shaft wirth electro zinc plating & Pivot of SS.			
2.13	Shaft Sleeve	Shaft sleeve to be made of galvanized steel with double casing the central shaft for effective protection,longitudinal support & reinforcement.			
2.14	Central Spoke Disc	Stainless steel material and these should be capable of gripping the spokes and also retains them intact			
2.15	Spokes with adjusting nuts	Galvanized steel material and capable for effective adjustment			
2.16	Bearing less design	Specially designed double sealed 60' pivot mechanism with graphite filled teflon(GFT) a self lubricating composite material bushing.			
2.17	Capacity (CFM)	Avg 3500 to 4500			
3.0	Other Features				
3.1	Turbo Ventilator shall work only on non consumable source of Energy (Wind Energy)				
3.2	The minimum wind speed at which it works shall be specified				
3.3	The ventilator (Fan) shall be statically and dynamically balanced .				
3.4	Entire System shall be coated with extra coat of PTFE / Teflon / Polyurethene.				
3.5	Basis for testing of Ventilation including Turbo Ventilators shall be mentioned				
3.6	Weight of the Ventilation system shall be specified.				
3.7	Type of Material of constructions including the grade shall be specified.				
3.8	Supplier shall indicate the reasons for choosing that material.				
3.9	Turbo Ventilator shall be mounted on Translucent UV stablized FRP Base plate				
3.10	Colour of the FRP base shall be selected as such to improve the Day light of the work area				
3.11	The FRP base shall be designed in such a way that after installation, the turbo ventilator stands vertical to the ground level. Drawing for this may be submitted along with the offer. If not possible, vendor shall furnish proper justification of their design.				
3.12	The Ventilator shall be maintenance free . The Vendor shall mention the shaft Bearing arrangement .				
4.0	Vendor shall furnish Drawing of Turbo Ventilator along with Ventilation design parameters and the calculations for BHELs approval before manufacturing of Ventilator.				

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4.1	Supplier shall furnish addresses of customers of Turbo Ventilators supplied by them along with contact persons name & address. Preference will be given to vendors who have supplied such equipments either to Government or Public Sector along with the offer.			
4.2	In case of Agents, recent Technical Catalogue / Literature from their Principals shall be furnished along with the offer.			
4.3	Supplier shall enclose the Data sheet of their quoted items showing CFM values at Different Elevation and Wind velocity			
5.0	Erection & Commissioning			
5.1	Vendor is responsible for Erection & Commissioning of Turbo Ventilators at BHEL, Hyderabad. The Offer shall include Erection and Commissioning charges.			
5.2	BHEL will not provide any accomodation for the Vendor's personnel that comes for installation.			
6.0	General Requirements			
6.1	The Technical bid and Price bid shall be submitted in separate sealed covers.			
6.2	The Vendor shall comply with all safety / statutory requirement existing at the time of placement of orders.			
6.3	BHEL reserves the right to Accept / Reject any offers without assigning any reason.			
6.4	The Turbo Ventilator along with FRP Base plate shall be guaranteed for satisfactory performance for atleast 2 years from the date of commissioning at BHEL.			
6.5	Three sets Operating Instructions & Maintenance manuals along with Test Certificate and Guarantee Certificate for the Turbo Ventilators shall be furnished along with the supply.			
6.6	Any Improvement to the above specification may be suggested by supplier. BHEL will study such proposals and only on its confirmation in writing by BHEL such changes shall be incorporated . If there is a cost benefit due to the technical change, it shall be passed on to BHEL.			
6.7	Vendor shall furnish all the requested data for all the points mentioned above ,in the absence of which the offers are likely to be rejected			

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