

**INDIAN INSTITUTE OF TECHNOLOGY
MADRAS**

BILL OF QUANTITIES FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE
				INR
A CENTRIFUGAL BLOWER, MOTOR & ACCESSORIES				
1	Medium Pressure Direct Driven PP Centrifugal Blowers (For 2789 cfm @ 120 mm WG Static pressure) including suitable clamp adapter, Electro galvanized stand base frame for Centrifugal Blower	No.	1	
2	Motor 3.7KW /4P(5HP/4P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application for CMVeco-315 . Terminal box should be on top side. Motor should be compatible for VFD operation.	No.	1	
2.1	Weather cowl Dia 350mm , (1.48 Sqmts).	No.	1	
2.2	Stack support (Kg:- 75 Kgs).	No.	1	
2.3	Motor Guard with accessories for 5HP/4P	Set	1	
B VARIABLE FREQUENCY DRIVE				
1	Variable Frequency Drive- 3.7 KW for Fume Hood Exhaust blower	No.	1	
C PP/FRP DUCTING & ACCESSORIES				
1	PP/FRP ducting using 3mm thick PPGL sheets with 2mm thick FRP lining using polyester resin including flanges & bends.	Sq. mts.	55	
2	PP/FRP 16" dia. single leaf Butterfly Manual damper with both side flanges for fume hood subheader	No.	1	
3	PP/FRP 10" dia. single leaf Butterfly Manual damper with both side flanges for spot extractor subheader	No.	1	
4	PP/FRP 6" dia. single leaf Butterfly Manual damper with both side flanges for Spot extractor Subheader	No.	1	
5	PP/FRP 8" dia. single leaf Butterfly Manual damper with both side flanges for Spot extractor Subheader	No.	1	
6	PP/FRP 10" dia. single leaf Butterfly Manual damper with both side flanges for Bypass Cluster 1	Rmts	1	
D SCRUBBERS & ACCESSORIES				
1	Type: Vertical with integrated liquid tank, Material: PP/FRP, Airflow: (2789) CFM Temperature: 60deg C (max.), Pressure drop: 500Pa (approx.), Dimension: Dia 750mm & Height 3300mm (approx.).Makeup Water Connection with , Control Valve, Water Level Indicator. Size Drain with Control Valve & Over Flow Pipe.Scrubber Recirculation Pump with pump inlet Flange connection with Y-Strainer, Outlet Flange Connection with NRV Ball Valve, Delivery Pipe with the Supports. inlet and outlet flanged connections with gasket and Bolt Nuts. Scrubber Pump of 0.5HP, 3phase 50Hz, 415Volts, 48 Lpm. Including Dosing Plug with Valve, Mounting Bolt & Nuts with Anti Vibration Pads, Including ladder with Handrial,Recirculation Pump Enclosure	No.	1	
TOTAL OF ANNEXURE-II				

Note

1 The civil foundation for the blower has to be provided by the Client.

SI				UNIT PRICE
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- 2 The starter & control panel (MCC Panel) for the exhaust blower has to be provided by the Client.
- 3 All communications and power cabling has to be provided by the client.
- 4 The make of the exhaust blower is Colasit, Switzerland.
- 5 PP/FRP Ducting material over and above will be billed seperately @ actuals.

Considerations:

- 1 True ceiling height -3900 mm
- 2 False ceiling height - 2745mm
- 3 Designed direct driven fan with VFD.
- 4 All base cabinets will be connected to the Fume Hood Exhaust Blower.
- 5 Considered Labs are in Second Floor & Terrace is above the Second floor

TOTAL PRICE