

Fume Extraction System/Water Washed Scrubber System for Surface Treatment Plant
(On Turn-key basis)

Code No. _____

Qty. – 01 Set

PURPOSE: Fume Extraction System/Water washed scrubber system for Surface Treatment Plant.

SCOPE: Design, supply, erection, installation and commissioning of fume extraction system/Water washed scrubber for surface treatment plant at ALIMCO, Kanpur

SPECIFICATIONS:

SL. NO.	DESCRIPTION OF REQUIREMENT	REQUIRED
A	Technical Details	
1	Scrubber	
1.1	Capacity	26000 m ³ /Hr
1.2	Type	Vertical Column / Tower With Packing, Spray Nozzles Arrangement
1.3	Size	Min. Dia. 1.8 m; Min. Height 3.5 m
1.4	Thickness	7 mm PP & 5 mm FRP Lining
1.5	Packing	1" Ceramic Rings
1.6	Material of Construction (MOC)	PP With FRP Lining
2	Pump	
2.1	Quantity	2 No. (1 No. Operating, 1 No. Standby)
2.2	Power	Min. 2 HP
2.3	Type	Centrifugal Type
2.4	Make	Kirloskar / Fuji / Vansal / Varuna
3	Id Fan	
3.1	Quantity	01 No.
3.2	Power	Min. 25 HP
3.3	Static Pressure	240 mmwc

3.4	Type	Centrifugal Type
4	Duct	
4.1	Diameter	Min. 250 mm at Hood End & min. 350 mm at Scrubber End
4.2	Length	As per vendor's design
4.3	MOC	3 mm PP With 5 mm FRP Lining
5	Chimney	
5.1	Length	Min. 10 meter from ground level
5.2	Diameter	Bottom 400 mm $\pm 10\%$ Top 300mm $\pm 5\%$
5.3	MOC	PP with FRP Lining
5.4	PP chimney with FRP lining with weather cowl and with support structure Chimney wall thickness: min. 5 mm (PP) + min. 3 mm (FRP)	Confirm
6	MS with FRP lined, Centrifugal Exhaust fan (3 phase, energy efficient) complete with direct drive/ 'V' belt driven AC motor, and dynamically balanced SS 316 Impeller, complete standard unit.	Confirm
7	PP with FRP lined, water washed Fume Scrubber complete with water spray nozzles, circulation pump, pall rings, mist eliminator and vertical pump.	Confirm
8	PP with FRP lined, Mist traps to arrest particulate contaminant in exhaust fumes/ air	Confirm
9	All cabling/ wiring along with cable tray & support structure	Confirm
10	PP with FRP lined, connecting ducts from lip ducts on tanks to Mist trap/ Scrubber to Exhaust fans (with support structure)	Confirm
11	All necessary spares and accessories not mentioned and will be required for smooth functioning, are in vendor's scope	Confirm
B	OTHER CONDITION	
12	Electrical System to be designed for	
12.1	3 Phases, 415V ($\pm 10\%$)	Confirm

12.2	Frequency: 50 Hz (\pm 3%)	Confirm
12.3	Protection level	IP54 or better
13	Supplier shall undertake to supply machine spares/accessories up to minimum 10 years from date of supply	Confirm
14	Vendor to submit the detail layout along with technical details	Confirm
15	Documentation: Following documents (3 sets of hard copy and 1 set of soft copy) along with delivery will be required	Confirm
15.1	Operating instruction	Confirm
15.2	Installation and Commissioning instructions	Confirm
15.3	Preventive maintenance instructions	Confirm
15.4	Lubrication chart & parameter list	Confirm
15.5	Lifting instruction mentioned in packing list.	Confirm
15.6	Detailed invoice and packing list of all items and all other accessories enclosed in respective boxes	Confirm
16	Training at site	
16.1	Operation and Training	1 Day
16.2	Preventive maintenance training	1 Day
17	Service: Contact person name, address with details such as e-mail, contact no. to be provided by the vendor	Vendor to specify
18	Delivery period including installation and commissioning: within 3 months	Confirm
19	Vendor to deliver machine/ items at "ALIMCO Kanpur site"	Confirm
20	Packaging and Transportation is in scope of vendor	Confirm
21	Installation and Commissioning should be done within 30 days on receipt of machine at site by the vendor. All necessary calibrations shall be done by vendor before handover the machine.	Confirm

DELIVERY PERIOD INCLUDING INSTALLATION & COMMISSIONING:

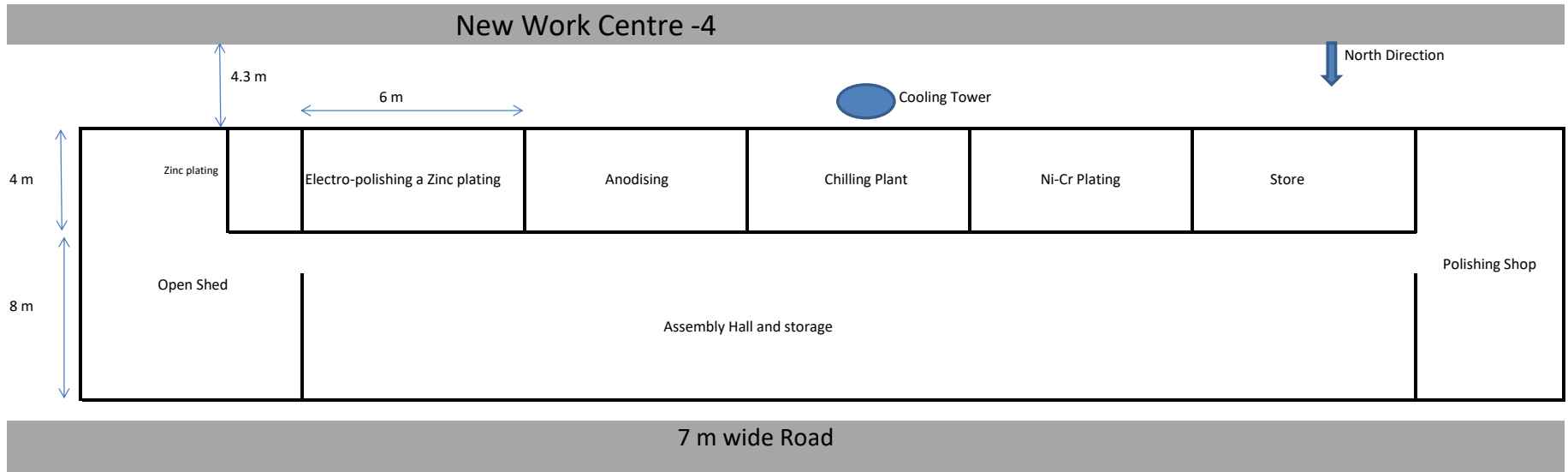
The delivery period including installation & commissioning of the machines/items at the destination mentioned in Para 1 on page no. 02 of the tender documents will be 03 months from the date of placement of Purchase Order/work contract.

WARRANTY:

The machine/item inclusive of all system/accessories should be covered under warranty for a period of 24 months from the date of commissioning.

Note:

1. Civil foundation details and drawings with specifications to be provided by the tenderer. Vendor to arrange any civil foundation work, if required, for the installation of machine/item/system.
2. Total power consumption (in kW) to be provided by the tenderer.
3. Breakdown calls to be attended within 48 hrs.
4. Successful tenderer has to arrange unloading and material handling at site, by their own.
5. Sufficient suitable cable, cable tray, Circuit breaker, fittings to connect the machine/item from power source is in Vendor's scope.
6. Tap for water at point will be available in the shop, Pipe line from there to be required location is in vendor's scope
7. Abbreviations:
 - PP - Poly propylene
 - FRP - Fibre reinforced plastic
 - SS - Stainless steel
 - MOC - Material of construction
 - MS - Mild steel



Layout of Existing Surface Treatment Plant

- Note :
- 1) Building height is 4 m (Approx) from ground level.
 - 2) Scrubber location will be between building and new work centre nearer to building ensuring all hazardous fumes will be taken care off.