

<b>SUPPLY, ERECTION AND COMMISSIONING OF "SINGLE STAGE DUCTED EVAPORATIVE AIR-COOLING SYSTEMS FOR 51 CANTEEN</b>				
TECHNICAL SPECIFICATIONS & BILL OF MATERIALS				
Sl.No.	DESCRIPTION	Qty.	Rate Rs.	Total Cost Rs.
	<b>PREQUALIFICATION OF BIDDERS:</b>			
	Tenderer shall necessarily submit all the following documents to get qualified.			
i.	To submit proof for achieving annual turnover of minimum Rs.38.0 Lakhs towards supply, installation, commissioning of HVAC works in at least one financial year during the period April 2005 to March 2009.			
ii.	To submit proof of satisfactorily executed (Completion certificate issued by the user) as a prime contractor of at least TWO similar HVAC works of value not less than Rs.19.0 lakhs each during the total period of April 2005 to March 2009.			
iii.	Certificate to the effect that the tenderer is a own equipment manufacturer (OEM) / authorized dealer of Air Washer units of minimum 27,000 CFM.			
	<b>51- Canteen ( 35 X 15 X 3.83 MTS ,200 people)- 54,000 CFM</b>			
<b>A.</b>	PACKAGED TYPE SINGLE STAGE EVAPORATIVE COOLING UNITS OF HIGH ADIABATIC EFFICIENCY OF 90% OR MORE: a) Weather Proofed, b) Corrosion Protected, c) Self Priming Pumps- total 2 Nos, 1 standby.			
	<b>Including Washer Section</b>			
1	Inlet Filters: 50mm thick multilayer aluminium wire mesh viscous, dust filter designed at 2 mps for 20 microns efficiency encased in aluminium frames.			
2	HumidificationSection: Consists of a S.S.water tank, FRP Distributor with medium class internal GSS piping. The impored cellulose based media of 200mm thickness with min 90% eff			
3	Distribution system: G.I class-B perforated impinging piping on distributor.			
4	Bleed-Off:To maintain minerals concentration in water to an optimum level.			
5	To mention total Consumption of water per hr per unit.			
	<b>Including Air Handling section</b>			
1	Centrifugal fan: Farward curved dynamically balanced heavy duty centrifugal blower with 16G scroll mounted mounted on shaft and self- aligning ball bearing.			
2	Fan bearings shall be provided with grease/oil "feeder Units" to ensure lubrication.			
3	Motor: Totally enclosed 3 Ph 440V eletric motor of reputed ISI make only.			
4	Drive: Taper-lock (Fenner make only) V-Belt pullys and belts.			
5	Taper lock V-belt driven and driver pulleys			
6	Noice Level: Not more than 80 db measured at a distance of 1 mtr from machine.			
	<b>Including Tank &amp; Pump section</b>			
1	Pump: 1 working and 1 standby -monoblock motor driven type.			
2	Tank: 18G Stainless Steel (SA-304 spec) with necessary class-B valves and fittings and "B" class internal piping			
3	Screen: 12 mesh brass in S.S frame.			
4	Float Valve: Highly reliable float with plastic ball.			
5	Plumbing: G.I / HDPE class-B			
	<b>Including Casing :</b>			
1	Material:Roof,Front and side panels GSS outside and plain 16G GSS inside dully 25 mm thick styroform insulated with GI perforated sheet			

## EVAPORATIVE COOLING SYSTEM FOR 51-CANTEEN

Dt: 04-11-2009

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2	Finish: with 2 coats synthetic enamel paint.			
<b>B</b>	<b>Low- Side Works: SPIRAL DUCTING (painted in trendy enamel colors)</b>			
	Ducting to be designed to ensure equal distribution of air at all parts of the area.			
<b>1</b>	20G Spiral Duct including steel supports	88 sq mtrs		
	22G Spiral Duct including steel supports	88 sq mtrs		
	24G Spiral Duct including steel supports	144 sq mtrs		
2	Thermal insulation of exposed duct with thermocol sand cement plaster	135 sq mtrs		
3	Supply air grills: Aluminium 6"SAG supply air grills with VCD	8 sq mtrs		
4	Duct Dampers	6 sq mtrs		
5	Control panels and remote operating units with 30 meters wiring and laying.	1 No		
<b>C</b>	Design Charges	Lumpsum		
<b>D</b>	Labour charges for erection, testing and commissioning charges	1Nos		
	Freight Extra	Appx.		
	<b>Note:Payment for low side works: on actual measurements.</b>			
	<b>TAXES EXTRA ED , CST, VAT</b>			
	<b>SERVICE TAX EXTRA</b>			
	<b>GRAND TOTAL</b>			