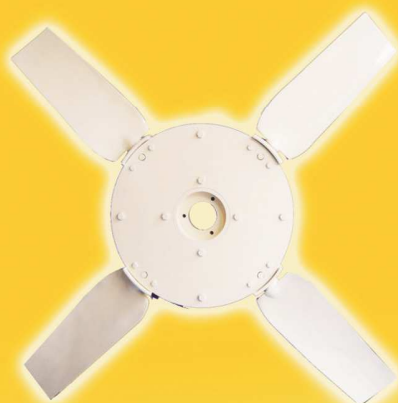
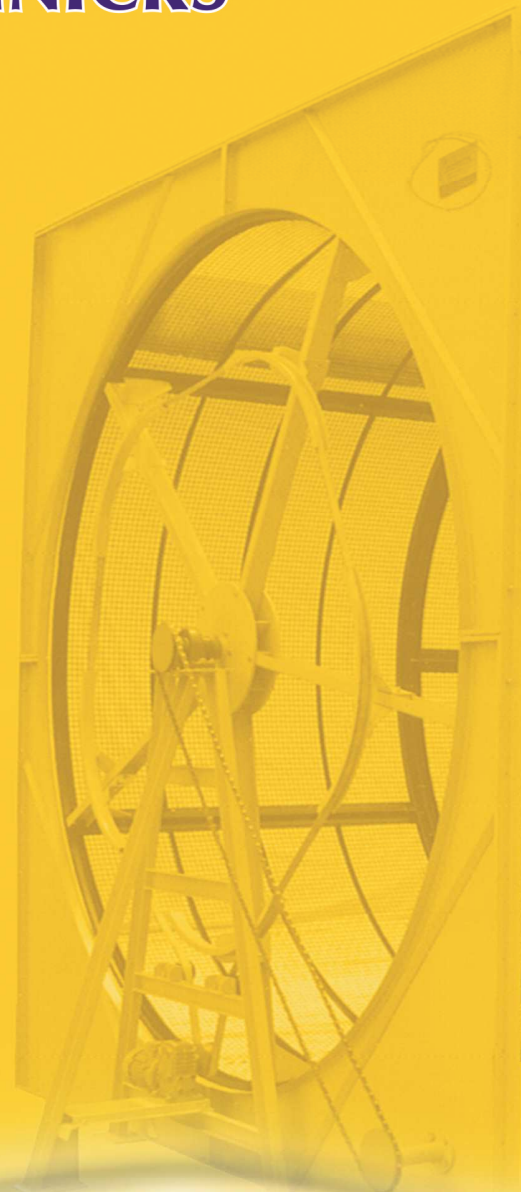




VODALUFT

ENERGY TECHNICKS



VODALUFT

WATER TREATMENT TECHNICKS





INTRODUCTION

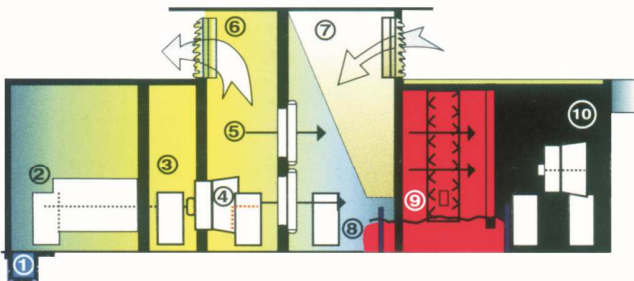
Vodaluft is pioneer in Re-Engineering for Energy Efficiency in all types of Air Conditioning & Ventilation systems inclusive of Humidification Plants.

All the HVAC systems are designed Energy Efficiently with state-of-the-art Technologies, keeping in view of the raising Energy costs.

With over 2 decades of Experience of the promoters in the field of Energy Management, Re-Engineering, HVAC Design, R&D, Projects & Implementation, the Energy consumption of such designed systems are the lowest in the market. The Energy savings varies from 30% ~ 50% as compared to other brands in the industry.

Vodaluft has delivered to the extent of 10000 cfm/kw. The market norm is hardly 3500 cfm/kw.

CENTRALIZED HUMIDIFICATION PLANT



Objective of the H' Plant is to maintain the desired RH in various departments while balancing the Supply Air & Return air from the departments and maintaining certain Air changes / hour.

Vodaluft offers SUCK THROUGH as well as BLOW THROUGH systems depending upon the site conditions.

Energy efficient design of the H Plant consists of incorporation of state-of-the-art Energy Efficient Aerofoil Fans, ANC systems, Aerofoil Dampers, Mist Eliminators, Rotary Drum Filters. In addition to the above a well designed Ducting & Trench Systems results in achieving the desired humidity levels and dust / heat removal from the department.

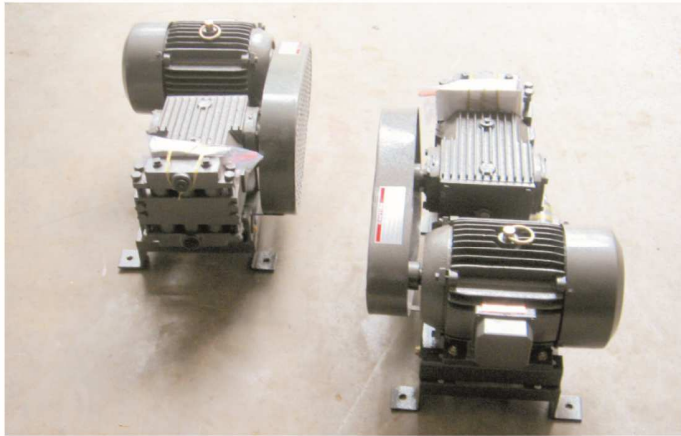


PRE-FABRICATED AIR WASHER SYSTEM

The Air Washer can be applied either in a centralized air handling system or, as a stand - alone unit in a central station of Masonry. The housing stands clear of the ground on a base frame and consists of standardized Panels. Pre-fabricated systems are available for Humidification, Chilled Water Systems as Ventilation Systems & Cellular Pad Systems in Various Capacities.



ADIABATIC NEBULIZATION COOLING SYSTEM



ADIABATIC NEBULIZATION COOLING SYSTEM (ANC) works with treated water - atomized & nebulized at a very high pressure with a specially designed & re-engineered pump. The atomization so fine that nebulized mist is created.

Since the water in the Nebulization state behaves like a vapor, it readily evaporates into the air, resulting in adiabatic cooling. Hence the Name Adiabatic Nebulization Cooling system.

And it is very different from general fog system available in the market – in the performance, quality, energy saving as well as operating cost

Due to this reason, the quantity of water sprayed is 100 times lower as compared to conventional air washer system.

Specially designed VODALUFT Nebulizers (Laser Drilled) made of Stainless Steel are operated between 30 ~ 70 Bars.

Most of the problems associated with conventional air washers is due to poor quality of water. This results in smoking & fouling of all the air washer components like Pump Filter, Main Header, Spray Banks, Spray Nozzles, Eliminators as well as air distribution ducts & diffusers. This necessitates regular maintenance to maintain the humidification plant efficiency.

This treated water passes through a Micron filter before entering the specially designed Nebulizers.



ADVANTAGES

1. High degree of evaporation & humidifier efficiency
2. Air Washer Tank can be totally eliminated.
3. Only 1 to 1.5 m³ of HDPE tank in place of 12 to 14 m³ of air washer tank.
4. Due to spraying only exactly dosed water (approximately 100 times less than conventional system) minimum pump power requirement. Approximately 65 ~ 80% Power Saving.
5. Due to optimised Adiabatic Cooling, reduction in chiller load.
6. Due to lower system resistance – 10 to 15% reduction in fan power consumption.
7. 75% Maintenance cost saving in respect of water related issues of conventional Air Washers (Labour, Water & spares)
8. No Touch System due to high quality water usage.
9. Automatic Pump Control System linked to RH sensor placed in the department.





LOW PRESSURE DROP MIST ELIMINATORS

- ★ The Basic Purpose of Eliminator is to Control the Undesirable Water passing after the Air Washer Zone. Available in PVC W type & S type.

AIR TIGHT DOOR

- ★ Available in Single Skin / Double Skin with Glass Puff Insulated.
- ★ Available G.S. / M.S. & S.S.
- ★ Easy Operation Handle.



DISTRIBUTION LOUVERS



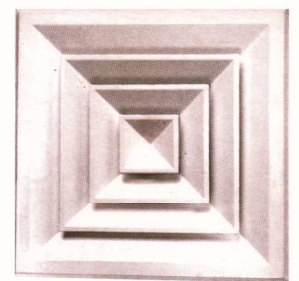
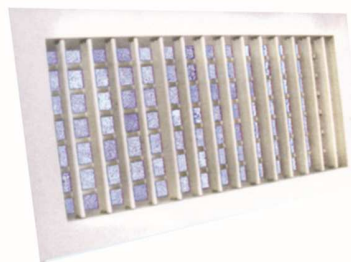
- ★ The function of the Weather Louver is to Prohibit the Ingress of wind Driven in the Ventilation System.
- ★ All Stainless Steel Construction/GI/PVC/Aluminium



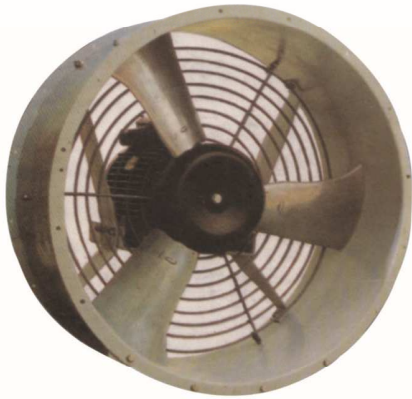
DAMPER

- ★ A Dampers are designed to Control the flow of air through Fresh Air / Re-Circulation Air or Exhaust Air.
- ★ There are two type of Dampers - Manual & Motorized. Manual Dampers are controlled by Twisting a Screw.
- ★ In a Motorized Damper Twisting of the Screw is done by an Actuator Motor.
- ★ The Sophistication Level of Motorized Dampers Varies. They can be as an Attachment to the Screw or as Advanced as Computerized Screen to Determine how far Open the Damper should be.
- ★ **Dampers are also available in MS / Al Extruded Profile** with & without Powder Coated.

DIFFUSER & GRILLS



- Minimum Resistance to the Flow of Air
- With or Without a Specially Designed Air Volume Control Device.
- Available in Mild Steel, Galvanised, Stainless Steel, Aluminium & PVC Materials.



ENERGY EFFICIENT AEROFOIL ALUMINIUM BLADE AXIAL FLOW FANS

Vodaluft offers 1200, 1400, 1500, 1600 & 1800mm dia energy efficient aerofoil aluminium blade axial flow fans.

The 1200mm dia fans are adjustable pitch bladed axial fans. The blades are of cast aluminium alloy while the hub is made of two-half hubs pressed from carbon steel. These fans are available in 2 / 3 / 4 / 6 blade arrangement depending upon the capacity (cfm & pressures) requirements.

The 1400 to 1800mm dia fans are perfect aerofoil shaped and meticulously designed so as to achieve highest efficiency levels in terms of specific energy consumption (cfm/kw). In these fans the hub as well as all blades are of aluminium alloy. These fans are available in 4 blade arrangement.



ROTARY DRUM FILTER

ENERGY EFFICIENT, ECONOMIC, EASY TO MAINTAIN

The rotary Drum filter is a well designed dust filtering system for return air with a high concentration of dust and fibres in spinning and weaving mills.

- Controlling of the cleaning process by differential pressure gauges.
- Automatic cleaning of the filter drum with a suction device fitted on the sides.
- Application with pre-fabricated housing or in a wall room.
- One filter mat per drum segment shortens the maintenance time.



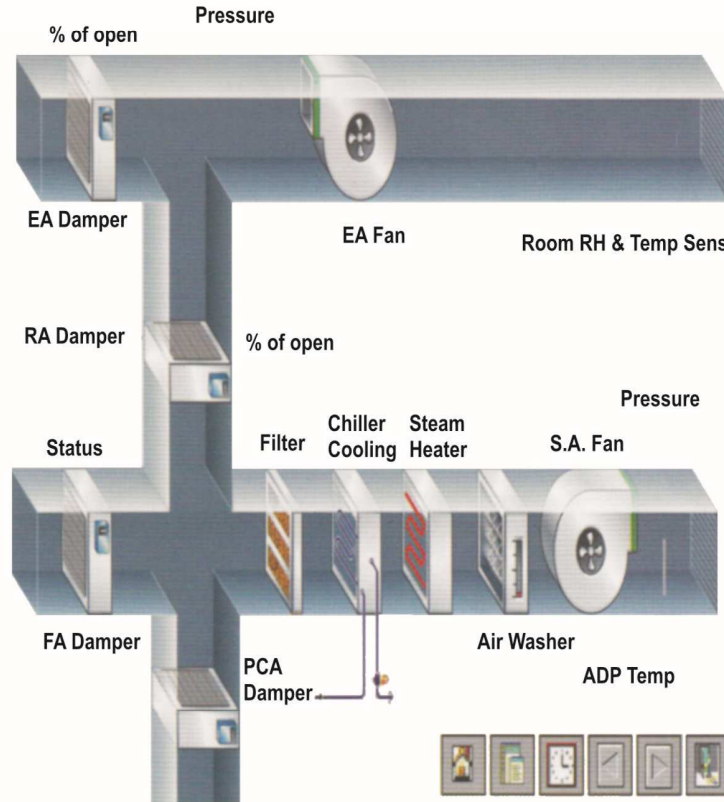
SEMI AUTOMATION

- Based on the department Relative Humidity the pump & fan are switched On/OFF Automatically.
- Single pump/fan ON/OFF control
- Two pump/Two fan ON/OFF control



FULLY AUTOMATION

- Based on the Relative Humidity, the pump & fan are switched ON/OFF Automatically.
- Based on the department / Outside Dry bulb Temperature, the FA/RA/EA damper operated Gradually/modulated.
- Based on the department relative humidity supply / exhaust fan speed can be increased / decreased accordingly with the help of inverters (VFD).



CENTRALIZED MONITORING AND CONTROL STATION (SCADA)

- All the parameters can be Monitored / Recorded / Controlled in a single Location.
- Graphical animated Display.
- Report generation.
- Web Access.
- Easy to Identify Single point failure.



VODALUFT ENERGY TECHNICKS

New No. 9, Old No. 35, 1st Floor, Samanthi Street, Brindavan Nagar, Chennai - 600 092.
No.5/548-A, Dasappa Nagar, (Ramasamy Nagar East), Udumalpet - 642 126, Tiruppur Dist.

☎ : +91 94449 59165 / +91 93817 90065 E-mail : sudhir.energy@vslprayag.com

Web : www.vslprayag.com

TURNKEY PRODUCT

- Humidification System
- Waste Collection System
- Comfort Air Cooling System
- Air Washer System
- Ventilation System
- Clean Air Room
- Central Air Conditioning System
- Pressurisation System
- Air Pollution

USER INDUSTRIES

- Textile Industries
- Pharmaceutical Units
- Tea Industries
- Tyre Industries
- Power Plants
- Automobile & Engg. Industries
- Cement Industries
- Steel Plant
- Food Industries
- Hotels
- Work Shop Building
- Cinema & Community Centre

PRODUCT RANGE

- Mist Eliminators
- Double Skin Air Tight Door
- High Efficiency Fan Coil Unit
- High Efficiency Air Handling Unit
- Aerofoil Dampers (Fresh Air & Exhaust Air)
- Diffusers
- False Ceiling
- Air Filter
- Water Filter
- Cooling Coil
- High Efficiency Axial Flow Fan
- Distribution Louvers
- High Efficiency Centrifugal Blower
- Duct
- Spray Nozzle & Nebulization Nozzles
- Piping (PVC, GI, SS)
- Insulation



VODALUFT WATER TREATMENT TECHNICKS