

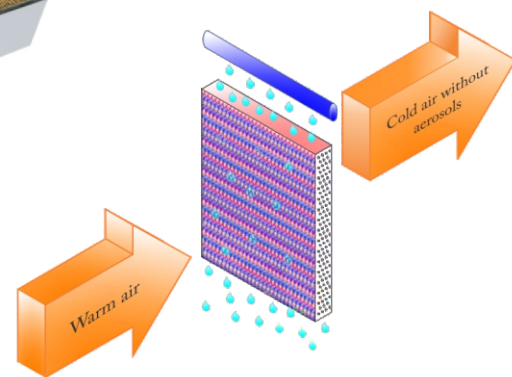
Adiabatic Cooling Tower



Working Principle

Adiabatic Cooling Tower reduces process cooling water with approaches of 5°C by direct heat transfer with air being circulated through finned & tube heat exchanger. This mode is called Dry mode; during most of the year the unit works without any water evaporation.

When ambient temperature is high during peak summer condition and dry mode is not sufficient then adiabatic mode will be activated by our intelligent controller to precool air. Adiabatic mode works on Evaporative Cooling Principle. Pump installed inside the cooling tower will operate and circulate water to cooling pad. Water flows down the corrugated surface of the cooling pad and reduces air inlet temperature by absorbing heat from air and as a part of this heat transfer, water evaporates. After that cold air passing through finned and tube heat exchanger reduces the process water temperature.



Proven Components

Fan Cycling

- Axial Flow Fans with EC MOTOR for tremendous energy savings of 30% on average during part load requirement
- Motor with IP 55 protection for open air installation
- Suitable for wide range of Voltage and both 50 / 60 Hz Frequency
- In-built soft starter and reverse polarity protection
- Optional variable speed fans available

Fin & Tube Heat Exchanger

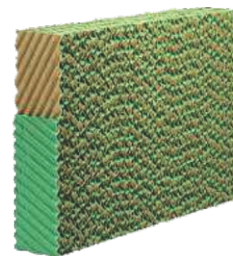
- Fin & Tube Heat Exchangers designed for Indian Environment
- Special Blue (Hydrophilic) coating on Aluminium to improve life of fins

Control

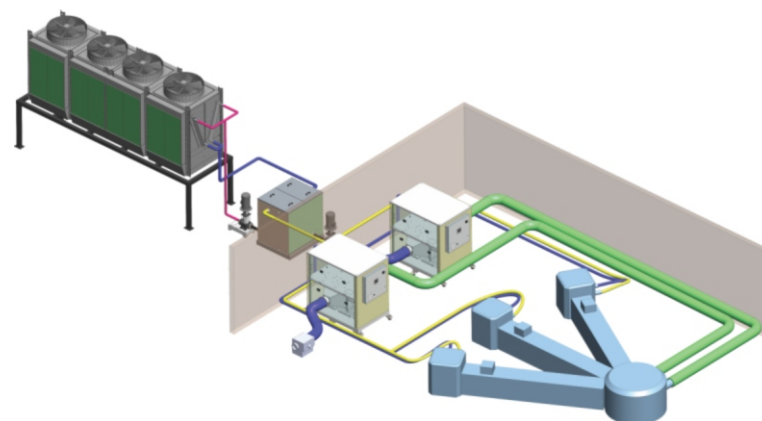
- 7" touch screen control
- RS 485 communication capability
- Display of cooling water inlet & outlet temperature
- Display of air inlet temperature
- Expandable up 240 TR of cooling tower (6 fan design)

Cooling Pad

- High evaporation efficiency improves performance of Adiabatic Cooling Tower
- Lower pressure drop reduces operating cost
- No water carry-over
- Quick & easy to install
- Even distribution of water with the help of water distribution manifold



Typical Installation Diagram of Adiabatic Cooling Tower with Multilayer Blown Film Plant



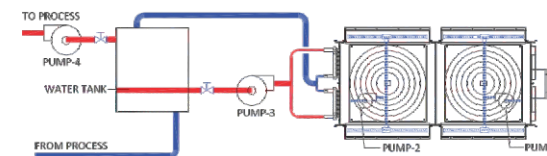
Sustainability: Nu-Vu Conair is committed to help our customers achieve sustainability goals.

Minimized Water Evaporation (up to 90% less)



Water is a very important resource. Normal conventional Evaporative Cooling Tower evaporates lot of water close to 1% of water flow. It also requires frequent blow down of the tank to restrict overall TDS of the cooling tower water.

Nu-Vu Conair Adiabatic Cooling Tower can reduce water evaporation rate by up to **90%** of conventional Evaporative Cooling Tower.



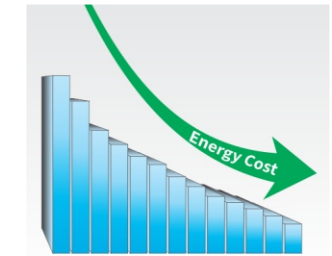
Decreased Operating Cost



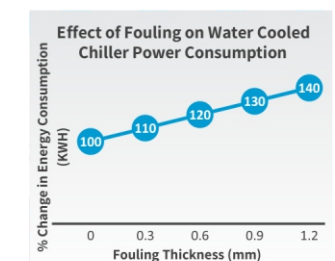
Evaporative open Cooling Towers causes fouling in the processing machines, in the Condenser Tubes of a water cooled chiller which in turn needs regular & laborious maintenance to keep the plant running without breakdown. It involves a lot of work in addition to the cost of chemicals, descaling units and down time to perform maintenance work.

Nu-Vu Conair Adiabatic Cooling Tower eliminates all unwanted maintenance related costs because of closed loop system in process water. It also reduces unplanned shutdown and disturbance to processing machines due to need of maintenance.

Decreased Energy Cost



Application where Chillers are being used instead of Open Cooling Tower for water temperature requirement of 30°C ~ 35°C.



Water Cooled Chillers will have higher power consumption due to fouling inside the tubes of condenser.

Technical Specifications

Model	ACT 1	ACT 2	ACT 3	ACT 4	ACT 5	ACT 6
Performance Characteristics						
Nominal Cooling Capacity KW (TR) *	70 (20)	140 (40)	210 (60)	280 (80)	350 (100)	420 (120)
No. of Fan / KW	1 / 2.2	2 / 2.2	3 / 2.2	4 / 2.2	5 / 2.2	6 / 2.2
Nominal Water Flow Rate LPM	150 @ 2 bar	328 @ 2.9 bar	590 @ 2.4 bar	800 @ 2.1 bar	1008 @ 2.3 bar	1216 @ 4.4
Circulation Pump KW	1.45	2.2	4		7.5	15
Maximum Flow to Adiabatic Tower LPM	230	380	960		1600	1300
Maximum Pressure Bar	2.8	3.5	2.8			5.7
Process Pump KW	Customer Scope of Supply					
Water Reservoir Capacity Liters	Optional (Refer Quote Submitted)					
Dimension W x D x H (mm)						
W - Width	1550					
D- Depth	1400	2800	4200	5600	7000	8400
H - Height	2150					
Connection - Internal Circulation						
Inlet / Outlet connection (BSP INCH)	1 1/2"	2 1/2"	3"		4"	
Electrical Power Supply	415V, 50 Hz, 3 phase					
Control Voltage	24V DC					
Total Connected Load KW	3.65	6.6	10.6	12.8	18.5	28.2
Control Range in Deg. Cel.	Plus (+) 30 to plus (+) 35					
Water Quality	Pure DM water – Conductivity < 10-30 µs/cm					
Weight (Kg)						
Installed (NET)	600	1200	1800	2400	3000	3600
Color	RAL 9005 Black / RAL 7047 Telegrey 4					

All specifications are subject to change without prior notice.

*Considering ambient condition: 35 degree celsius & 63% relative humidity.
**Nominal Capacity based at Leaving Water Temperature of 32°C & Ambient Temperature of 35°C DBT / 25°C WBT.

LEADING MANUFACTURER OF PLASTIC AUXILIARY EQUIPMENT

Material Storage | Conveying | Drying | Blending | Heat Transfer | Size Reduction



(An ISO 9001:2015 Certified Organization)

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