

Beat the heat with nature's fresh air



**OUR OTHER PRODUCT RANGE**

- Air Treatment Unit • Fan Coil Unit • Pressurisation Unit • Air Scrubber
- Air Terminal Product • Smoke & Fire Damper • Accoustic Door

# BRIGHTFLOW EVAPORATIVE AIR COOLING UNITS

## EVAPORATIVE AIR COOLING UNITS

With over three decades of being in the installation of Air-conditioning & Refrigeration line, we also had the privilege of supplying & installing Evaporative cooling plants. The installation experience is proving to be of immense advantage in the manufacturing enabling us to cater to the specific demand of the user. These units are available in various sizes, ranges as per requirement be it **Horizontal / Vertical Floor Mounted** or **Ceiling Suspended Units** both in **Single & Double Skin** construction.

## AN AMAZING TECHNOLOGY

Evaporative cooling is the natural way of cooling on the simple principle that cooling is caused by evaporation. Summer brings a lot of inconvenience & discomforts to all & retards the workers efficiency, leading to low production, absenteeism from duty & causes heat related health problems. The inbuilt system comprises of a centrifugal blower / blowers, eco-friendly cooling pads; water distribution system. Hot & dry air is drawn by the blower/ blowers through the completely wet air cooling pads, gets cooled & distributed through a network of ducting for various cooling applications.

## EFFECTIVE COOLING PADS

The pads are available in various standard depths, widths & height and cater to saturation efficiency from 60% to 95% based upon the selected depth & velocity of air through the cooling pads. Bleak chances of damage, breakage of pads due to negligible edges build up.

A well designed & unique water distribution system & pads keep them completely wet. Each and every pad meet the standards of high performance and durability.

## WHY TO USE EVAPORATIVE COOLING

In Air Conditioning we use recirculated air which becomes stale, impregnated with germs causing diseases in the closed space. In evaporative cooling 100% fresh filtered air passes through the open space which comparatively contains much lesser germs, free from odour and the occupants don't feel lethargy & are more active. Our 80% lifetime is spent indoor & our health depends upon the air we breathe and the type of building. So Evaporative Cooling with 100% nature's fresh air is the answer.

## NECESSITY OF BLEED OFF CONNECTION

Such type of unit coolers exhibit high performance in hot & dry areas where a salt setting is generally observed within a few days of the unit operation. The salt blocks the pads & the hot air which doesn't come into contact with the wet area with result in much lower saturation efficiency & comparative uncomfortable conditions prevail in the relevant areas. The salt observed is basically the presence of minerals which must be drained off. The drained water should be made up automatically by make up water connection.

## HORIZONTAL / VERTICAL FLOOR MOUNTED DOUBLE/ SINGLE SKIN

The framework is made of special Extruded Aluminum profiles joined by three directional nylon corners, which form the complete structure. The casing is fabricated out of double panels, the inner from G.I sheet and the outer one with 24G pre-painted, pre-plasticized G.I. sheets. We normally supply the panels with CFC free, non-hydroscopic, poly-urethane injected foam having 38-40 kg/cum density. The units are also available in **Single Skin** construction as well.

## MOUNTING BASE

Both the double/ single skin units are mounted on heavy guage G.I. sheet channels.

## FAN SECTIONS

The fan is double width, double inlet, centrifugal forward curved, belt driven & is designed for low RPM, mounted in the double or single skin casing, isolated from the main supporting structure by spring isolators & Fire retardant flexible connection to minimize the vibrations & noise transmission. Backward curved centrifugal fans also available as an optional.

## EVAPORATIVE COOLER INTERNALS

Apart from the inside location of the blower in the units, the humidification section consists of epoxy coated mild steel tank or fiberglass reinforced plastic (FRP) or stainless steel sump tank, complete with pipe & pipe fittings including valves for inter-connecting the monoblock pump set/ sets, distribution system, quick-fill, drain & complete with bleed off connections & suction screen.

## FILTER SECTION

The filter section comprises of aluminium corrugated wire mesh / HDPE filter which can be removed from the sides or top as per convenience of the end user.

## CEILING SUSPENDED UNITS

The description of the ceiling suspended unit is same as described under horizontal / vertical floor mounted except the fan which may be twins keeping in view the limitation of the height between the ceiling & the false ceiling. The units may be either double skin or single skin.

## DOUBLE SKIN FLOOR MOUNTED UNIT (SINGLE BLOWER- BELT DRIVEN)



## TECHNICAL DATA

Model No.	Air Volume		Fan Dia (mm)	Overall Dimension (mm)			Fan Outlet Velocity (m/s)	Evaporative Pad Area (Sq.ft)
	CMH	CFM		Length	Width	Height		
BFW - 20	3400	2000	250	1475	850	1150	9.08	4
BFW - 30	5100	3000	315	1600	1050	1175	8.69	6
BFW - 40	6800	4000	355	1650	1350	1175	9.26	8
BFW - 45	7650	4500	355	1650	1050	1150	10.41	9
BFW - 50	8500	5000	400	1750	1350	1350	9.22	10
BFW - 60	10200	6000	450	1850	1350	1475	8.78	12
BFW - 70	11900	7000	450	1850	1350	1675	10.24	14
BFW - 75	12750	7500	500	2000	1400	1750	8.70	15
BFW - 80	13600	8000	500	2000	1400	1850	9.28	16
BFW - 85	14450	8500	500	2000	1400	1950	9.86	17
BFW - 90	15300	9000	560	2000	1400	2050	8.33	18
BFW - 95	16150	9500	560	2100	1700	1800	8.79	19
BFW - 100	17000	10000	560	2100	1700	1850	9.26	20
BFW - 110	18700	11000	560	2100	1700	2000	10.18	22
BFW - 120	20400	12000	630	2150	1700	2100	8.85	24
BFW - 135	22950	13500	630	2150	1700	2300	9.96	27
BFW - 150	25500	15000	710	2300	2000	2150	8.79	30
BFW - 175	29750	17500	710	2400	2000	2450	10.25	35
BFW - 200	34000	20000	800	2500	2300	2400	9.33	40
BFW - 222	37400	22000	800	2300	2600	2350	10.26	44
BFW - 250	42500	25000	900	2450	2900	2350	9.24	50
BFW - 270	45900	27000	900	2500	3200	2350	9.98	54
BFW - 300	51000	30000	1000	2650	3500	2400	8.84	60
BFW - 340	57800	34000	1000	2650	3100	2650	10.01	68
BFW - 350	59500	35000	1000	2650	3800	2500	10.31	70

- For vertical floor mounted & ceiling suspended unit's dimensions, please contact our technical department.
- Due to continuous R & D improvement in the products, we reserve the right to alter dimensions of the units without any prior notice