

ULTRASONIC HUMIDIFIERS

THE LATEST IN HUMIDIFICATION TECHNOLOGY



RAPID COOL

Cooling People Know Heating Best

ULTRASONIC HUMIDIFICATION SYSTEM

RAPID MIST

Rapid-mist humidifiers are ultrasonic humidifiers. They work on the principle of Ultrasonic vibrations, which require no heating elements are required for Humidification. A conventional humidifier with heating elements would require 750 Watts of electricity to humidify 1 liter of water. Whereas rapid-mist humidifier only Requires 100 watts to humidify 1 liter of water. Hence you get about 85% of Electric savings by using our rapid-mist humidifiers.

Ultrasonic humidifiers use piezo-electric transducer to create a high frequency Mechanical oscillation in water. The water tries to follow the high frequency Oscillation but cannot because of its comparative weight and mass inertia. Thus, a Momentary vacuum is created on the negative oscillation, causing the water to Cavitate into vapor. The transducer follows this with a positive oscillation that creates High pressure compression waves on the water's surface, releasing tiny vapor Molecules of water into the air. This is an extremely fine mist, about one micron in Diameter, that is quickly absorbed into the air flow.

In almost any commercially useable space, where air is being exchanged, Humidifying that air is almost always desirable and often essential. Take computer Rooms or hospital diagnostic centers, for example. Proper humidification in those Areas controls the occurrence of static electricity, which can otherwise cause Problems in equipment operations. Efficient humidification system will ensure Smooth product processing. A controlled humidity environment helps maintain Freshness and quality of air. Rapid-mist humidifiers are designed to provide the Tight humidification control necessary for this wide range of applications.

Since the mist is created by oscillation, not heat, the water temperature need not Be raised. Rapid-mist humidifiers, therefore, can create instantaneous humidity, And don't have to wait for a heating element to boil the water. This precise on/off Humidity control is the hallmark of rapid-mist humidifiers. In addition, unlike wet Pad humidifiers, ultrasonic units can be of comparatively small size, and produce Significant amounts of vapor.

The biggest advantage of rapid-mist is the energy savings. Compared to steam Canisters and infrared humidifiers, ultrasonic humidifiers require about 90% less Electricity to humidify the same size space! In addition, this small electricity Requirement can lead to significant savings in the cost of wiring, electrical Distribution boards, standby generation and even the main input transformer to The building. Energy analysis calculations show that the lower energy costs, alone, Can give the customer a payback in one to two years.

The rapid-mist humidifiers are almost maintenance free, as the water is filtered Before humidification, there is no dust particles, mud or scaling inside the humidifier. The only maintenance require is cleaning or replacing the filter periodically.

Simply put, the ultrasonic humidifier system does not generate heat at any point in The humidification process.

As a result it saves you energy in :

- Reduces humidifier's power consumption
- Eliminates unwanted heat added to the air stream
- Eliminates heat lost in the flushing process
- Eliminates heat-based inefficiencies
- Reduces compressor use via free cooling Ultrasonic Humidifier

COMPARISON CHART

For new Ultra Sonic Humidifier vs. Heater Based Humidifier.

Assuming one unit of electricity is for Rs. 4.35 and one unit = 1 k.w., According to the power consumption given below a 10 LPH ultrasonic Humidifier (Model RM-10) running for 8 hour daily for 365 days would have electric consumption of worth

Rs. 6978.80 (± 5%) and

a 10 LPH regular heater based humidifier running for 8 hour daily for 365 days would have electric consumption of worth **Rs. 101616.00** (± 5%)

Comparing the two, the New Ultrasonic Humidifier would save **Rs. 94637.00** on electricity.

NEW ULTRASONIC HUMIDIFIER RAPID MIST

Liters Per Hour	Electric Consumption (K.W.)	Price Per Hour
2 Liters Per Hour	0.14	0.60
5 Liters Per Hour	0.31	1.34
10 Liters Per Hour	0.55	2.39
15 Liters Per Hour	0.85	3.69
20 Liters Per Hour	1.10	4.78
25 Liters Per Hour	1.36	5.91
30 Liters Per Hour	2.28	9.91

Regular Heater Based Humidifier of Same Capacity

Liters Per Hour	Electric Consumption (K.W.)	Price Per Hour
2 Liters Per Hour	2.40	10.44
5 Liters Per Hour	4.75	20.66
10 Liters Per Hour	8.00	34.80
15 Liters Per Hour	11.75	51.11
20 Liters Per Hour	15.50	67.42
25 Liters Per Hour	19.25	83.73
30 Liters Per Hour	23.00	100.05