

# Humidifirst® MPL Series Packaged Ultrasonic Humidifiers



Humidifirst® offers a choice of humidity controllers, ranging from a mechanical on/off humidistat to a state-of-the-art microprocessor with proportional control and modem interface.

Humidifirst® MPL Humidifier	Other Manufactures	Humidifirst® Benefits
<ul style="list-style-type: none"> <li>• Plug'n Go. Only humidifier that does not require hard power and control wiring.</li> <li>• Quick connect/disconnect fitting for both power and water.</li> <li>• Easy access to all parts.</li> <li>• No flush cycle.</li> <li>• Uses energy efficient ultrasonic transducers to produce a pure mist.</li> <li>• Instant on and instant off humidification. The transducers start humidifying the air immediately.</li> </ul>	<ul style="list-style-type: none"> <li>• Require hard power and control-wiring.</li> <li>• Hand piped and hard wired.</li> <li>• Difficult, tight access to parts.</li> <li>• Steam canisters require hard pipe drains for boiling water flush cycles.</li> <li>• Many use steam boilers or electric cathods that are high electricity consumers.</li> <li>• Many require time for the water to boil before a mist is provided. They may require a shutdown period while dirt is flushed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces price of humidifier and installation.</li> <li>• Easier and faster to service.</li> <li>• Easy to service. Reduced maintenance cost.</li> <li>• Reduced installation cost.</li> <li>• Can save the user over \$1,200 per year in operating costs.</li> <li>• Humidifirst® provides more accurate control of relative humidity.</li> </ul>

# MPL Series Ultrasonic Humidifiers



**HUMIDIFIRST®**  
ULTRASONIC HUMIDIFIERS

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**HUMIDIFIRST®**  
ULTRASONIC HUMIDIFIERS

*Leading the Way in Ultrasonic Technology*

# Steam Size Droplets at $\frac{1}{13}$ <sup>th</sup> the Cost!

## Why are steam size droplets important?

Ultrasonic humidifiers create consistently small, steam size water droplets - about 1 micron in diameter - that allow for quick evaporation. But unlike steam technology, ultrasonic mist is instantly produced so there is no waiting for boiling of water, and it is a cool mist so heat energy is not added to the surrounding space. Other technologies, like spray nozzle systems, produce large water droplets that make it difficult to achieve quick and complete evaporation. In addition, both spray nozzle and steam humidifiers lack ultrasonic's ability to be proportionally controlled. Proportional control of ultrasonic's unique ability to instantly turn on and turn off humidity production allows the humidifier to pulse power so that output is reduced following the demand curve of the building. This avoids large swings of humidity change, and gives ultrasonic the ability to accurately and consistently control humidity levels.

## User Friendly

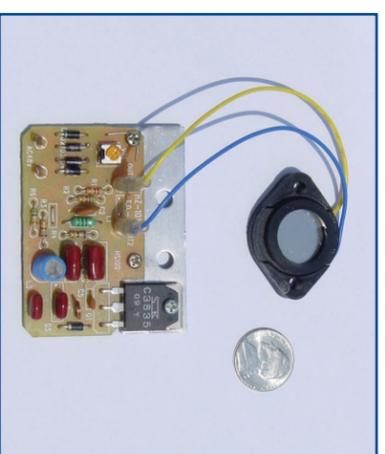
- Powered by 120v input
- Stand alone or install in air conditioner system
- Can be installed in air conditioners with either up-flow or down-flow air patterns
- Slim profile design
- Unique design provides finest mist possible

## Principles of ultrasonic humidification

The ultrasonic transducer is a piezo-electric crystal, immersed in water where it converts high-frequency electronic signals into a high-frequency mechanical oscillation.

The water tries to follow the high-frequency oscillating movement of the crystal (1.65 MHz) but cannot. As a result, a momentary vacuum is created on the negative oscillation of the crystal wherein the water cavitates into vapor. Then, on the positive oscillation, high pressure waves force the cavitated water through the surface of the water as a very fine mist (about 1 micron) which is easily absorbed into the air flow.

**Humidifirst®** ultrasonic humidifiers harness this ultrasonic technology to provide tight humidity control with remarkable energy savings.



## Humidifirst® Customers Include:

- Boeing Co.
- Frito-Lay, Inc.
- Tyco Corp.
- 3M, Inc.
- Argonne National Laboratory
- Raytheon Polar Services
- Hewlett-Packard
- E.I. DuPont
- Proctor & Gamble
- Jet Propulsion Laboratory

# Humidifirst® MPL Series Humidifiers



## Humidifirst® MPL Series Humidifiers

The MPL Series ultrasonic humidifiers from **Humidifirst®** are designed for stand alone use or for installation in compact air conditioner systems. The uniqueness of this humidifier is that the transducers are spaced farther apart than traditional ultrasonics, which produces faster evaporation. The humidifier is all 304 grade stainless steel.

The MPL Series operates off standard 120v power and has quick-connect fittings for water and electricity. The humidistat is pre-wired to the control panel.

## Humidifirst® Ultrasonic MPL Series Technical Data

Humidifier Module	Capacity (#/hr)	Power used	Weight (lbs.)	Dimensions L x D x H (in.)	Number of Transducers	Fan CFM
MPL-2	2	75 v/a	14	21 x 6.5 x 8.5	2	45
MPL-5	5	150 v/a	19	36 x 6.5 x 8.5	5	45
Control Panel	-	-	30	14 x 14 x 8	-	-

## Easy Maintenance

There are no pans to scrub, infrared bulbs to change, or steam canisters to replace. **Humidifirst®** MLP Series ultrasonic humidifiers are made out of high-grade stainless steel. Using pure deionized water will eliminate contaminants from entering the humidifier. Transducers will last approximately 15,000 hours.