



TRION[®]
Indoor Air Quality



Whether it is during high heating months in northern climates, or throughout the whole year in arid conditions, consumers have increased their positive awareness regarding the achievable personal health benefits of incorporating humidifiers into their HVAC systems. Similarly, humidifiers condition and can better protect everything else residing in our homes and businesses.

However, buyers of new humidification systems need to also be aware that some types of humidifier products waste a significant quantity of water while producing humidity output. Specifically, the most water-wasting type of humidifiers are lower cost, evaporative pad based products. In this type of humidifier, an evaporator pad is constantly wetted by introducing water at the top and allowing water to saturate down the pad while air is blown around the pad.

Water that is not transformed into humidity is pulled down through the pad by gravity, ultimately dripping from the bottom of the pad and into a drain pan where it is wasted out the drain connection.

TRION Indoor Air Quality (IAQ) does sell low cost evaporative pad type humidifiers. At the same time, for more water-conscious consumers, TRION IAQ offers a cutting-edge, patented¹ innovation to significantly reduce the amount of fresh water wasted out to the drain.

TRION IAQ's CB300S Evaporative Bypass Humidifier and CB100S Fan-Equipped Evaporative Humidifier incorporate H₂O Smart™ Technology that electronically monitors the evaporative pad airflow temperature and automatically reduces the water flow when it senses that the pad is reaching saturation. By shutting the water off ahead of full pad saturation, the amount of water dripping into the drain pan is significantly reduced.

Competitors' systems without H₂O Smart Technology may waste up to five gallons of fresh water for every gallon delivered to the air. Over time, that's an incredible amount

CB100S **Fan-Powered** **Evaporative Humidifier**

FEATURES

- H₂O Smart Technology controls self-adjust to compensate for variations in temperature, airflow, and water pressure, allowing the CB100S to provide maximum performance and water savings regardless of system conditions.
- H₂O Smart-equipped humidifiers have the highest peak capacity and are the only humidifiers available with a constant drain water ratio.
- Environmentally Friendly - ComfortBreeze™ humidifiers consume less than 100 watts of electricity and H₂O Smart Technology translates into greater than 80% water savings versus conventional competing units.
- Versatile Installation - Fan-powered models are compatible with any type of furnace system: single stage, variable speed, or modulating.
- Push-to-Lock Fittings - Water connections provide quick installation and worry-free operation.
- Independent Operation - The CB100S can be installed so that a "call for heat" is not required for the unit to deliver humidification. H₂O Smart-equipped models feature a relay that can power the HVAC blower.
- 5-Year Limited Warranty
- Made in the USA

of wasted water. As an example, a competitor's 17 gallon per day output humidifier may waste 85 gallons each day, which is 2500 gallons each month! That's why TRION IAQ innovated H₂Osmart Technology...because old style humidifiers waste too much water. There are multiple drawbacks with wasting water:

1. Fresh water is a depleting natural resource that we must learn to preserve.
2. Water costs money.
3. In country homes, the wasted water subsequently increases the loading on septic systems.

TRION IAQ's H₂Osmart Technology reduces the water wasted from five gallons to only one gallon for each gallon of humidity output. In comparison for a single month, TRION IAQ's H₂Osmart Technology can save/preserve up to 2000 gallons of fresh water vs. the competition.

There are other reasons to invest a few extra dollars for the H₂Osmart Technology. TRION IAQ's competitors now offer another less efficient means to save some water based on a low-tech float valve. While the float provides reduction in wasted water vs. a constant drip, there is another reason for alert and concern.

The float valve relies on having a constant water level in the drain pan, which constantly submerges the evaporative pad. Keeping the evaporative pads submerged in waste water reduces the pad's life, as the pads continually soak up excessive minerals, which degrades the pad's absorbability long-term. Reduced pad life requires the consumer to replace more often, increasing the overall cost.

In closing, there are two additional problems/issues worth noting about cheaper evaporative humidifiers:

1. Without H₂Osmart Technology, the pads remain long-term submerged. This also helps to keep alive nasty, moldy, and smelly water as an everlasting mess, spraying the resultant mold spores into your home with normal HVAC flow.
2. Humidifiers using mechanical float valves are less reliable and fail more often than TRION IAQ's H₂Osmart humidifiers, which replace the mechanical float valve with a more reliable microprocessor-controlled electric valve.

¹Air System Components, Inc. "Air Humidification Systems." Patent 9,285,133. 15 March 2016.



CB300S

Evaporative Humidifier with H₂Osmart Technology

FEATURES

- H₂Osmart Technology controls self-adjust to compensate for variations in temperature, airflow, and water pressure, allowing the CB300S to provide maximum performance and water savings regardless of system conditions.
- ComfortBreeze humidifiers consume less than 10 watts of electricity, and H₂Osmart Technology translates into greater than 85% water savings versus conventional competing units.
- Versatile Installation - By-pass models include a summer/winter shut-off damper and deliver a peak capacity of 24 gallons per day at 140° air.
- Push-to-Lock Fittings - Water connections provide quick installation and worry-free operation.
- Independent Operation - The CB300S can be installed so that a "call for heat" is not required for the unit to deliver humidification. H₂Osmart-equipped models feature a relay that can power the HVAC blower.
- 5-Year Limited Warranty
- Made in the USA