



The Maxi series constant volume humidity generators is a fully automatic positive pressure air supply devices, designed to provide conservation-quality humidity control for museum displays or storage enclosures.

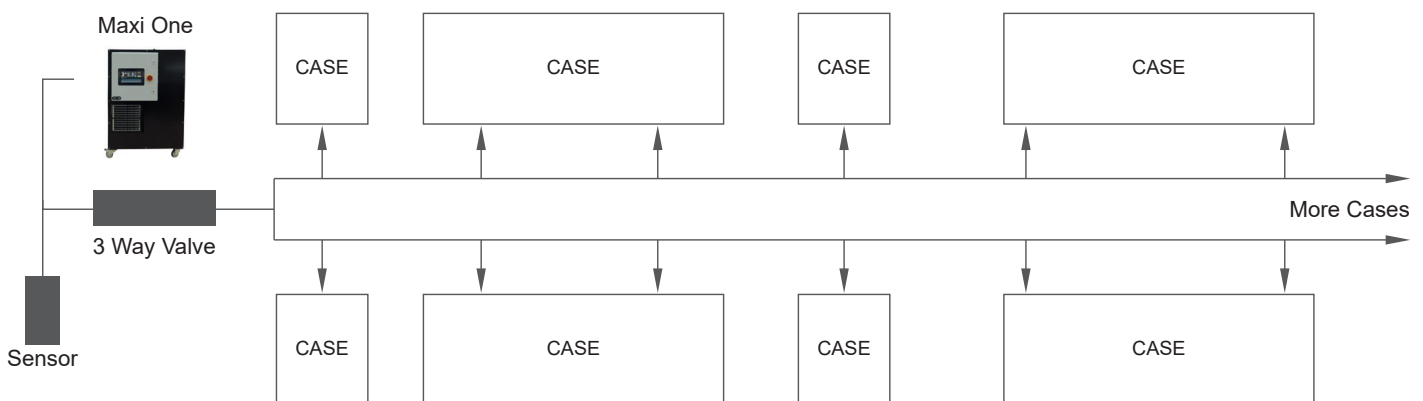
A single unit in a remote location can reliably maintain stable humidity conditions in an entire gallery of showcases, ranks of storage cabinets, or an archive room.

## MAXI SERIES MICROCLIMATE GENERATORS

### ▶▶▶ ADVANTAGES OF THE MAXI ONE GENERATOR

Maxi microclimate generators are used to supply air to multiple display cases, very large volume showcases, multiple storage enclosures or small archive rooms where:

- Energy cost savings of up to 50% are to be realized.
- Accurate humidity control in new or renovated galleries may be expensive or impractical.
- Existing air conditioning systems or building envelopes cannot maintain adequate humidity control.
- Existing display cases with moderate to high leakage rates must be used, or cost savings must be found on new display or storage cases.
- Pollutants or dust from internal or external sources must be purged from cases.



## OPERATING PRINCIPLES

Maxi series units provide a continuous low-pressure flow of filtered air to display or storage cases, gently displacing case air and pollutants. Air is supplied as a positive pressure feed only, there is no return flow. Displaced air from the case is exhausted through naturally occurring leakage. Constant airflow may be set for any humidity from below 35% to above 60% at ambient temperatures of 70 degrees F / 21 degrees C and can be distributed to multiple enclosures.

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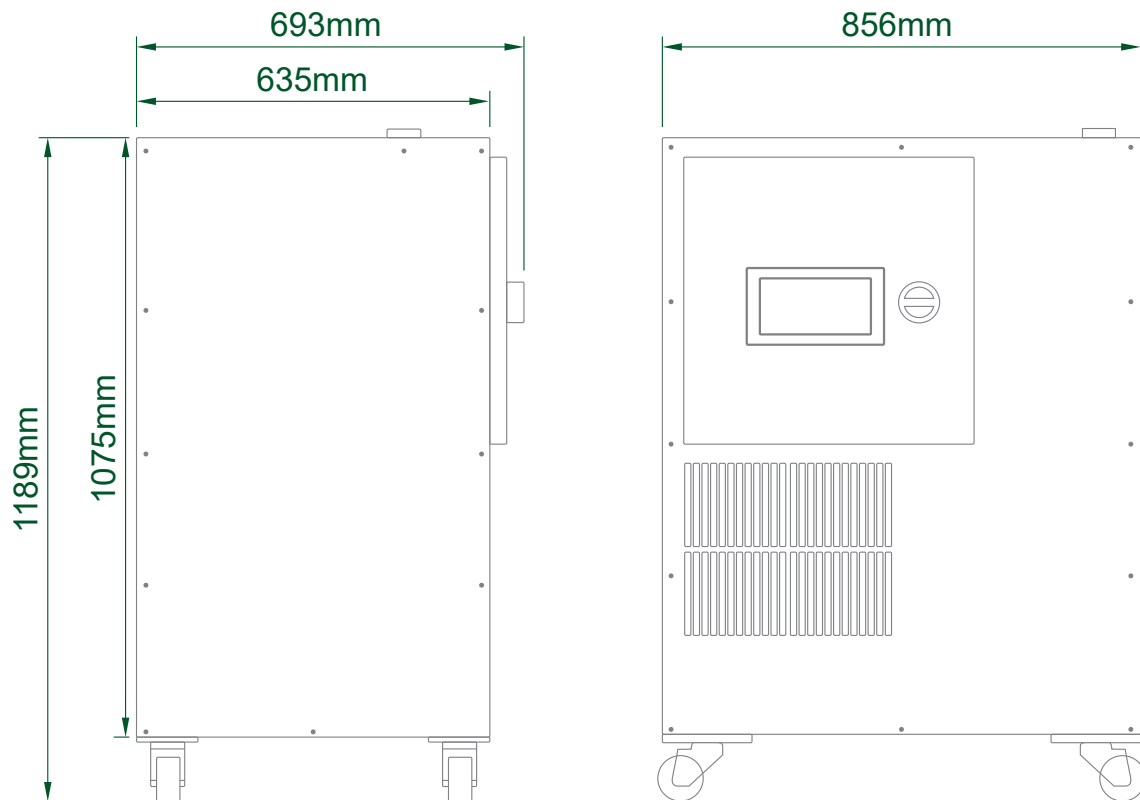
Output variation at constant temperature is typically less than +/- 1%. Depending on unit and application, a constant output volume from less than 15 cfm / xxxxxlpm to over 40 cfm / xxx pm can be generated. Depending on enclosure leakage, humidity targets, and ambient conditions, a single unit can provide a maximum treatment capacity for over 14,000 cubic feet / 500 cubic meters of enclosures.

## INSTALLATION



Maxi units can be located up to 400 feet / 150 meters from the gallery, in a machine room, janitorial closet, or any space with adequate room, ventilation, water supply, floor drain, and power connections. The footprint of the unit is 90 cm X 65 cm), The unit should be floor mounted, and comes on casters for easy movement. Noise levels are surprisingly low, allowing locations close to treated enclosures. The unit will operate in an environmental range of 15 to 30 degrees centigrade and at higher humidities, but optimum performance will be found at lower ambient temperatures.

The unit comes complete with a high quality temperature and humidity sensor. which must be located in the gallery. Sensors may be wall mounted, or optionally placed in a “representative” showcase. Environmental data is returned to the control panel on the unit by cable or wireless system.

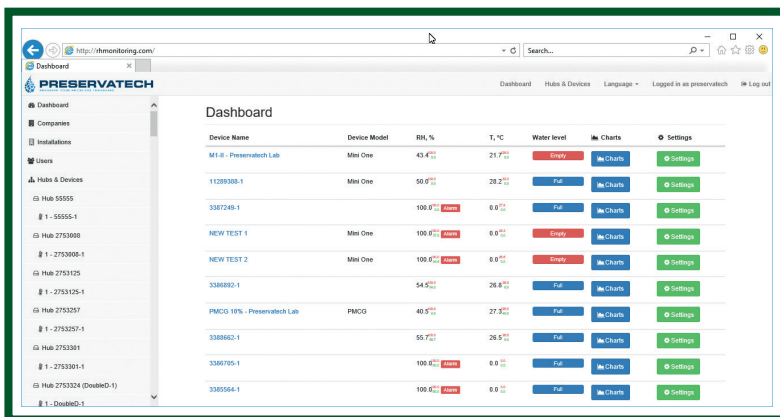


## TECHNICAL SPECIFICATIONS

- Unit Size: 856mm wide x 695mm deep x 1190 height (including 4" diameter swivel casters)
- Body: Steel frame, aluminum covers, black powder coated.
- Nominal Weight: 200 kg (reservoir empty), ~ 300 kg (reservoir full) • Power Supply: 110V/220V/1/60, 3 wires plus ground, 30 Amp • Nominal Power Consumption: 12 Amps @ 220V when generating 50% RH @ 21C • Maximum Operating Amperage: 15 Amps @ 220V/1/60 • Operating Temperatures 10 – 30 degrees C; Gallery temperatures have no effect on unit's mechanical operation, but will affect achievable humidity levels.
- Filter Media: Optional Intake filter: Combination of (Carbon / PP / Fine Particulate filters); Exit filter: HEPA grade, or As Requested.
- Water Supply: ¼" hose connection for domestic line. An optional reservoir is available.
- Drainage: Floor drain in vicinity of unit, or optional containment tray.
- Output: The MAXI ONE may be optimized to provide a constant flow of RH tempered air at tolerances as low as +/-2% within an operating range of 15 to 30 degrees centigrade at a flow of up to 60 SCFM / 2000 lpm and pressures of 3 to 8 inches wc / 750 to 2000 pascals at the output pipe. This air flow may be adequate to supply up to 7000 cubic feet / 200 cubic meters of display cases at four air changes per day. Ultimate device capacity will depend on the combined leakage of cases, layout of supply runs, and desired performance parameters.
- Standard Accessories Included: Off-site alarm connections; gallery mounted sensor box; electro-mechanical dump valve; operating manual and trouble-shooting guide.



## REMOTE MONITORING



Existing museum Wi-Fi networks may be used to connect the units to the internet, and rhmonitoring.com is accessible through any web connectable device. Monitoring can be done from any location.

rhmonitoring.com can be used to report on current relative humidity and temperature conditions and

historical data, as well as changing some operating parameters. Sensor history graphs may be generated, and notifications and alarms can be automatically sent by email as required.

## OPTIONAL EQUIPMENT



While not necessary for Maxi unit operation, we recommended a tank free, reverse osmosis system to ensure a low mineral content water supply. This will prevent performance degradation caused by accumulated mineral deposits. Maintenance and monitoring plans are also available.