Cool, Clean and Comfortable
Condair HP-Series
Adiabatic In-Duct High Pressure
Humidification System...
Simply Awesome
Why Choose Condair HP Series?

- Quiet energy efficient operation
- Flexible mounting of parts to fit many duct dimensions
- Tight humidity control and excellent hygiene properties
- Complete system with integrated RO and options to boot
- A single high pressure pumping station serving many, air-handlers, ducts and zones
- High capacities available, up to 2860 lbs/hr, with back-up pumps and customized solutions

Control Panel
A clear and intuitive control panel makes it easy for the Building Management System (BMS) to communicate with the pump station. The touch screen interface is user friendly and personnel can enter system requirements and read vital data.

Integrated RO System
An optional integrated reverse osmosis system allows for a reliable and hygienic operation.

Energy Efficient Motor
High quality Grundfos electric motor that gives you one of the lowest energy consuming humidifiers, without sacrificing quality.

High Pressure Pump
With water lubricated pumps you can guarantee a longer life than oil lubricated pumps. You also have the added peace of mind of clean water being used inside your pumping system.

Valve Block
The valve block provides control of various nozzles. Clients have the choice of the standard 7-stage valve block (with ± 4% humidity control) or the more advanced 15-stage (with ± 2% humidity control).
Nozzle Grid / Manifold Assembly
The stainless steel nozzle grid assembly allows for long life and durable mounting of parts.

Mist Eliminator
In order to prevent the fine water droplets from wetting any downstream components, Nortec recommends a mist eliminator downstream of the nozzles. A drain pan (by Others) is a must to expel collected water.

Air handling unit drain pan / auxiliary drain (by Others)
Technical Data

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>HP 100 (200 VFD)</th>
<th>HP 300 (500 VFD)</th>
<th>HP 500 (800 VFD)</th>
<th>HP 800 (1300 VFD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump Capacity: lbs/hr (l/hr)</td>
<td>No VFD: 26 - 264 (12 - 120)</td>
<td>No VFD: 79 - 700 (36 - 318)</td>
<td>No VFD: 92 - 1162 (42 - 528)</td>
<td>No VFD: 159 - 2086 (72 - 948)</td>
</tr>
<tr>
<td>Nominal Output (480V/3/60Hz) kW</td>
<td>No VFD: 1.0</td>
<td>No VFD: 1.8</td>
<td>No VFD: 2.2</td>
<td>No VFD: 3.2</td>
</tr>
<tr>
<td>With VFD: 1.8</td>
<td>With VFD: 2.2</td>
<td>With VFD: 3.2</td>
<td>With VFD: 4.0</td>
<td></td>
</tr>
<tr>
<td>Rated Current Amps</td>
<td>1.5</td>
<td>1.9</td>
<td>3.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Required humidifying section (Length)</td>
<td>Minimum 4.2 ft. (1.3 m)</td>
<td>No VFD: 26 - 2860 lbs/hr (12 - 1300 kg/hr)</td>
<td>No VFD: 208, 400, 480, 600 VAC / 3 Phase / 50-60 Hz</td>
<td>No VFD: 1015 Psi (70 bar)</td>
</tr>
<tr>
<td>Humidifying capacity</td>
<td>30 - 102 Psi (2 to 7 bar)</td>
<td>Reverse Osmosis, De-ionized (5 - 30 μS/cm)</td>
<td>0-5 VDC, 1-5 VDC, 0-10 VDC, 2-10 VDC, 0-20 mA, 4-20 mA</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
</tr>
<tr>
<td>Pump supply voltage</td>
<td>208, 400, 480, 600 VAC / 3 Phase / 50-60 Hz</td>
<td>No VFD: 26 - 2860 lbs/hr (12 - 1300 kg/hr)</td>
<td>No VFD: 1015 Psi (70 bar)</td>
<td>No VFD: 208, 400, 480, 600 VAC / 3 Phase / 50-60 Hz</td>
</tr>
<tr>
<td>Pump operating pressure (Standard)</td>
<td>1015 Psi (70 bar)</td>
<td>No VFD: 26 - 2860 lbs/hr (12 - 1300 kg/hr)</td>
<td>No VFD: 1015 Psi (70 bar)</td>
<td>No VFD: 208, 400, 480, 600 VAC / 3 Phase / 50-60 Hz</td>
</tr>
<tr>
<td>Inlet water pressure range</td>
<td>30 - 102 Psi (2 to 7 bar)</td>
<td>Reverse Osmosis, De-ionized (5 - 30 μS/cm)</td>
<td>0-5 VDC, 1-5 VDC, 0-10 VDC, 2-10 VDC, 0-20 mA, 4-20 mA</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
</tr>
<tr>
<td>Inlet water quality</td>
<td>Reverse Osmosis, De-ionized (5 - 30 μS/cm)</td>
<td>0-5 VDC, 1-5 VDC, 0-10 VDC, 2-10 VDC, 0-20 mA, 4-20 mA</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
<td>MERV 13</td>
</tr>
<tr>
<td>Control signal connection</td>
<td>0-5 VDC, 1-5 VDC, 0-10 VDC, 2-10 VDC, 0-20 mA, 4-20 mA</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
<td>MERV 13</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
</tr>
<tr>
<td>Relative humidity control accuracy</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
<td>MERV 13</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
</tr>
<tr>
<td>Required air filter class upstream of humidifier</td>
<td>MERV 13</td>
<td>MERV 13</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
</tr>
<tr>
<td>Allowable air velocity</td>
<td>150 ft/min - 700 ft/min</td>
<td>MERV 13</td>
<td>MERV 13</td>
<td>± 4% (7 Stage), ± 2% (15 Stage)</td>
</tr>
</tbody>
</table>

Options

- Multi-zone Package
  Allows up to 4 individually controlled humidifier grids to share a common pump.

- Droplet Separator
  Easy to install droplet filter contains water to a given evaporation distance and improves water efficiency through post evaporation.

- Conductivity sensor
  Continuously monitors incoming water quality by measuring conductivity and triggers alarm if water values are out of range. Provides peace of mind as well as enhanced operational safety.

- Water meter
  Integrated water meters display consumption, ideal for building performance monitoring or claiming regional water and sewer tax credits.

- UV Water Treatment
  Factory installed ultraviolet lamp inhibits bacterial growth in the humidification water, enhancing hygienic operation and improving operational safety.

- High Precision System
  Additional valve staging allows for tighter tolerances and enables control accuracy of up to +/-2%.

- Communication Gateway
  Provides a factory installed communication gateway for integration of the humidifier into a building automation or SCADA system.

- Integrated RO System
  Provides a high performance reverse osmosis water treatment system integrated directly into the high pressure pump skid.

- Water Softener
  Self-regenerating ion exchange softener is ideal for systems with integrated RO systems. Removes hardness prior to RO system prolonging membrane life.

- Carbon Filters
  Activated carbon pre-filter removes free chlorine from supply water. Recommended for systems with integrated RO system when chlorine concentrations are above 0.05 – 0.1 mg/l.

- Additional Hose
  Provides additional high pressure hose for connections between pump and valve blocks.

As the leading manufacturer of commercial/industrial humidification systems for more than 70 years, Condair has the technology and application expertise to meet the needs of any application.

Contact us today and ensure you have the best humidification and evaporative cooling solution for your application.