



HP  
SERIES



## 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

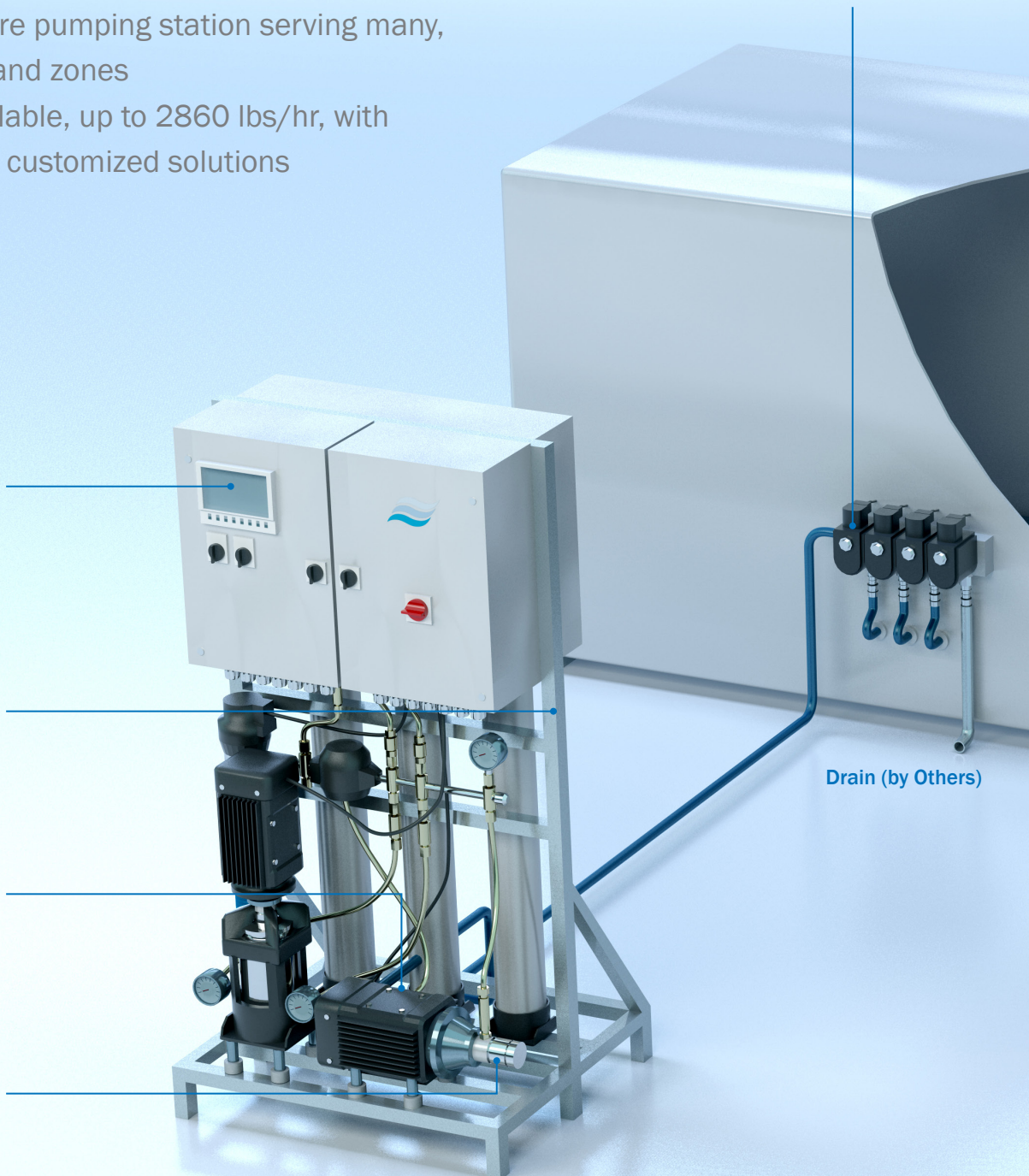
High quality Grundfos electric motor that gives you one of the lowest energy consuming humidifiers, without sacrificing quality.

### 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  $\pm 4\%$  humidity control) or the more advanced 15-stage (with  $\pm 2\%$  humidity control).



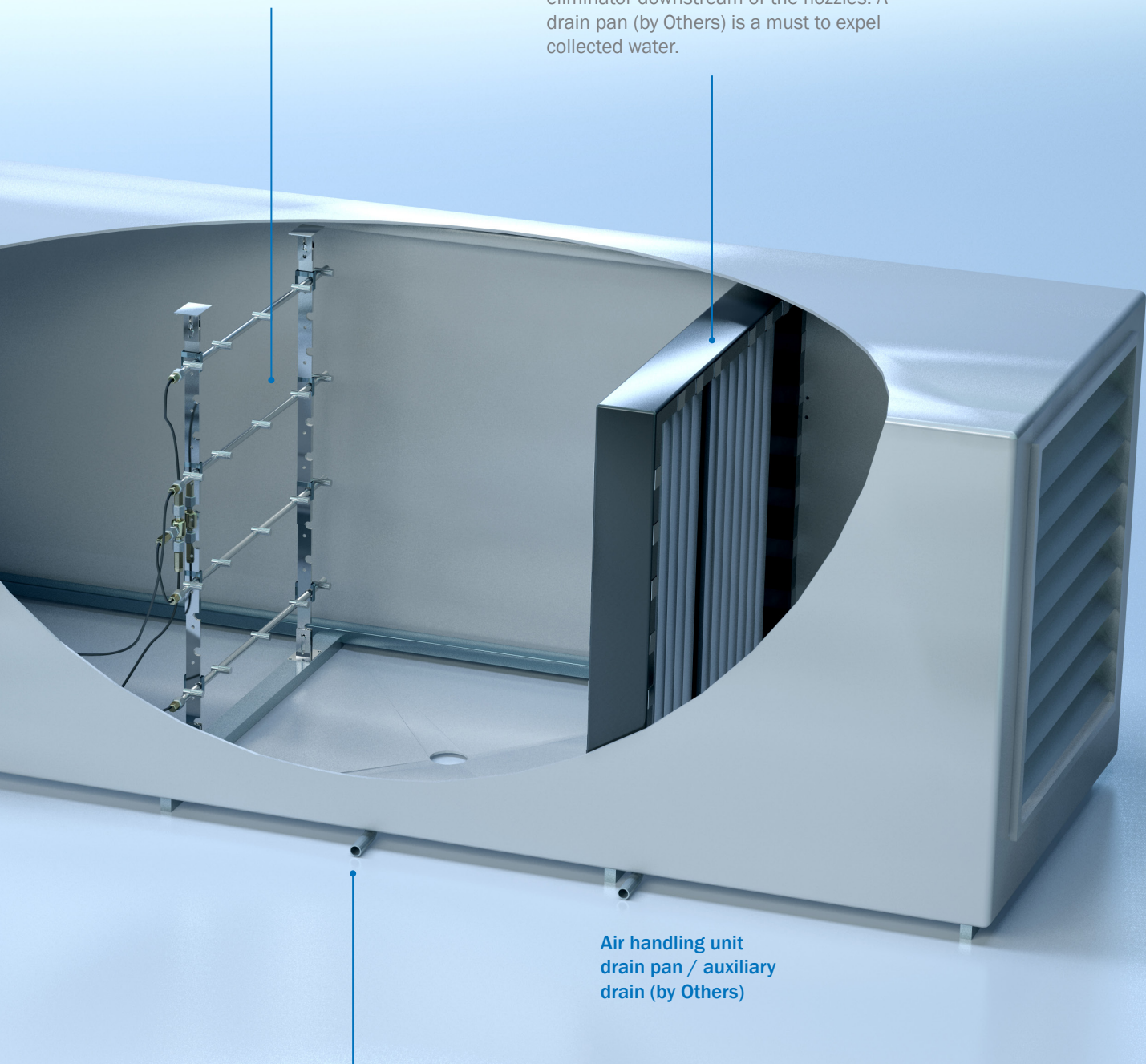


#### Nozzle Grid / Manifold Assembly

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)

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

# Technical Data

SPECIFICATION	HP 100 (200 VFD)	HP 300 (500 VFD)	HP 500 (800 VFD)	HP 800 (1300 VFD)
Pump Capacity: lbs/hr (l/hr)	No VFD: 26 - 264 (12 - 120) With VFD: 11 - 440 (5 - 100)	No VFD: 79 - 700 (36 - 318) With VFD: 44 - 1100 (20 - 500)	No VFD: 92 - 1162 (42 - 528) With VFD: 88 - 1760 (40 - 800)	No VFD: 159 - 2086 (72 - 948) With VFD: 132 - 2860 (60 - 1300)
Nominal Output (480V/3/60Hz) kW	No VFD: 1.0 With VFD: 1.8	No VFD: 1.8 With VFD: 2.2	No VFD: 2.2 With VFD: 3.2	No VFD: 3.2 With VFD: 4.0
Rated Current Amps	1.5	1.9	3.7	5.3
Required humidifying section (Length)	Min. 4.2 ft. (1.3 m)			
Humidifying capacity	26 - 2860 lbs/hr (12 - 1300 kg/hr)			
Pump supply voltage	208, 400, 480, 600 VAC / 3 Phase / 50-60 Hz			
Pump operating pressure (Standard)	1015 Psi (70 bar)			
Inlet water pressure range	30 - 102 Psi (2 to 7 bar)			
Inlet water quality	Reverse Osmosis, De-ionized (5 - 30 µS/cm)			
Control signal connection	0-5 VDC, 1-5 VDC, 0-10 VDC, 2-10 VDC, 0-20 mA, 4-20 mA			
Relative humidity control accuracy	± 4% (7 Stage), ± 2% (15 Stage)			
Required air filter class upstream of humidifier	MERV 13			
Allowable air velocity	150 ft/min - 700 ft/min			

## 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.

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