



## CONDAIR RS

Resistive steam humidifier with  
advanced scale management

Humidification, Dehumidification  
and Evaporative Cooling



 **condair**

# Resistive steam humidifier with advanced scale management

## Scale control

The scale management system ensures scale detaches from the heater elements and falls into the scale collection tank. This allows it to be removed by regular maintenance personnel and significantly extends the periods between major services.

## Corrosion-resistant stainless steel cylinder

### Cold water pool protects water inlet and drain outlet against scale blockages

Near the water inlet and drain outlet connections, the twin-walled cylinder design of the unit creates a cold-water pool, which always remains below the temperature of scale formation. Water inlet and outlet are therefore protected against scale deposition.



## External scale collection tank

The location of the scale collection tank below the unit ensures very easy access. The tank can be removed and emptied easily without the need for opening the unit housing. This makes maintenance tasks quick and simple.



Condair RS



## Steam distribution options

with steam  
hose for in-duct  
humidification

with blower pack  
for direct room  
humidification



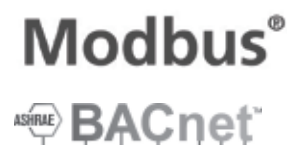
## Intuitive touch screen controller

State-of-the-art user interface offers simple control and advanced diagnostic reporting. Current and historic performance data can be called-up in real-time or accessed and analysed remotely via optional IoT (Internet of Things) connectivity.

## Comprehensive BMS connectivity

The Condair RS offers building management system connections for Modbus RTU or Modbus TCP as well as BACnet IP or BACnet MS/TP.

**Outdoor  
version  
(optional)**



Condair RS resistive steam humidifiers can operate on mains water, or demineralized water, for close control and reduced servicing.

This state-of-the-art humidifier is designed to be easy-to-use and maintain, whilst offering outstanding reliability and accurate humidity control.

## Advanced scale management

### **A technical innovation that solves the scale problem**

An advanced steam cylinder design allows scale to be removed from the humidifier by in-house maintenance personnel.

Scale detaches from the heating elements and falls into the scale collection tank. This tank can be easily drained and emptied, without needing to open the main unit housing.

Routinely removing scale from the humidifier improves performance and extends the periods between major service visits, reducing operating costs.

Scale is not only undesirable in the humidifier itself but can cause building drainage issues. By removing scale, rather than sending it to drain, pipe blockages are avoided.

### **Cold water pool**

By locating the water inlet and drain outlet between the walls of the outer cylinder and an inner plastic liner, the temperature by these orifices is kept at a level that inhibits the formation of scale. This prevents inlet and drain blockages, providing robust trouble-free operation.

By locating the drain pump above the scale collection tank, rather than at the base of the unit, it further reduces the quantity of scale sent to drain.

Cold water pool protects water inlet and drain outlet against scale blockages





Scale forms on heating elements



Scale detaches during heating cycles



Scale falls into the scale collection tank

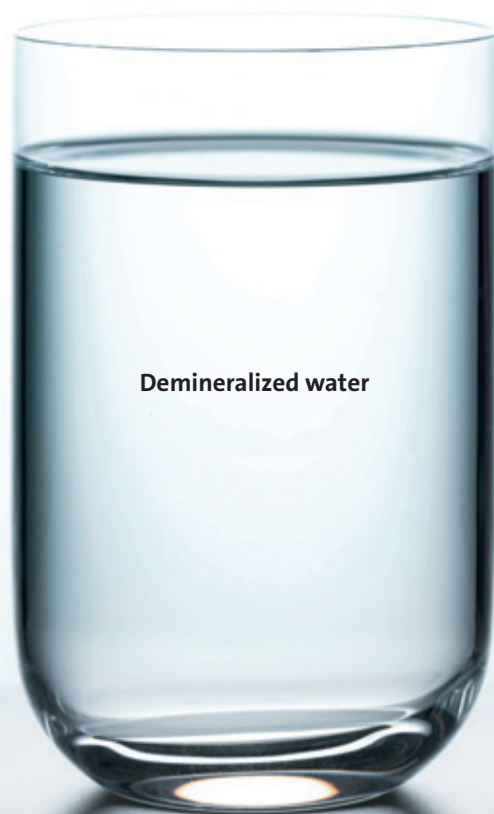


Collection tank is drained and emptied





Drinking water



Demineralized water



## Flexible choice of water

A resistive heater works independently of the water's conductivity. Unlike electrode boiler technology, which needs water with minerals, resistive steam humidifiers operate effectively with either mains or demineralized water.

When using demineralized water, scale build-up is virtually eliminated. This removes the need for dilution cycles to control mineral levels, provides a stable water temperature and more consistent humidity control. It also significantly reduces service requirements.

If steam humidifiers are to be operated on mains water, the Condair RS should always be first choice. Its scale management system provides robust performance and allows for quick and simple maintenance.

## Intuitive touch controller

### **Comprehensive BMS connectivity**

The Condair RS supports a variety of common building management system network protocols. As standard, the Condair RS can connect to Modbus RTU or Modbus TCP as well as BACnet IP or BACnet MS/TP. It incorporates BTL (BACnet Testing Laboratories) certified BACnet technology, considered a worldwide test standard in BACnet communication. An optional gateway board is available to connect to a LonWorks network.

### **Control and reporting at your fingertips**

With the Condair touch controller, humidifier operation is intuitive and easy.

Operating parameters can be viewed and adjusted using the mostly icon-based interface. Trouble-shooting suggestions help the user overcome common issues.

Historic performance is simple to access and can be viewed on the controller or analyzed in more detail via an optional IoT (Internet of Things) connection.

### **Precise control**

The electronic control system allows the steam output to be varied continuously between 0 and 100%. This results in a very accurate steam supply rate and precise humidity control.

Standard model

- Stainless steel steam cylinder
- Advanced scale management
- External scale collection tank
- Remote ON/OFF, operation and fault indication
- Modbus and BACnet-connectivity
- Touch screen operation
- Self-diagnostic system

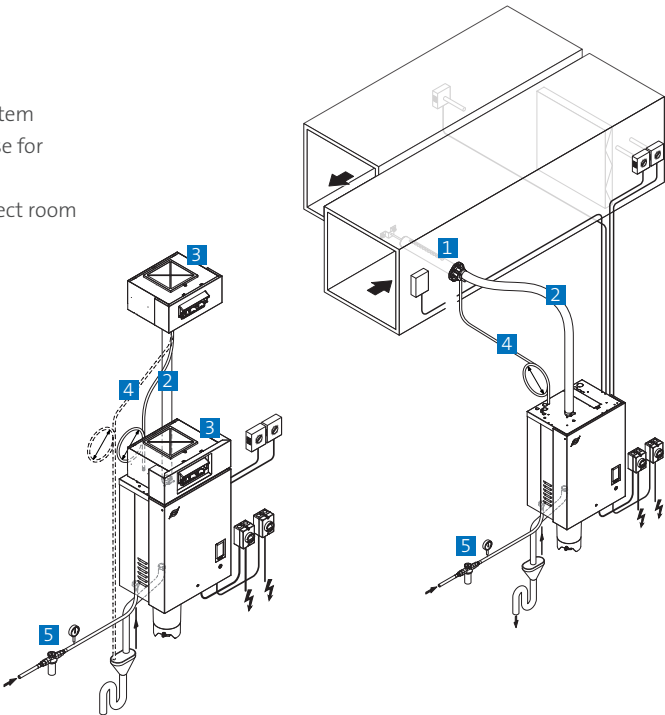
Options

- OptiSorp multiple steam distribution system
- Humidity sensor for duct/room installation
- Duct/room hygostat
- Pressure compensation set (up to 10,000 Pa)
- Condair Soft water softener
- Condair reverse osmosis unit
- Condair online remote diagnostics
- LonWorks-connectivity

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Accessories

- 1 Steam distribution system
- 2 Steam distribution hose for ducted installation
- 3 Ventilation unit for direct room humidification
- 4 Condensate hose
- 5 Filter valve



Technical data

Condair RS		5	8	10	16	20	24	30	40	50	60	80
Housing sizes		Small			Medium					Large		
Heating voltage		Maximum steam output										
400V 3Ph 50-60Hz	kg/h	5.0	8.0	10.0	16.0	20.0	24.0	30.0	40.0	50.0	59.6	80.0
230V 1Ph 50-60Hz	kg/h	5.0	8.0	9.8	-	-	-	-	-	-	-	-
Control voltage		230V 1Ph 50-60Hz										
Dimensions WxHxD	mm	453 x 987 x 370			563 x 1,097 x 406					1,033 x 1,097 x 406		
Operating weight	kg	40.2	40.2	40.2	65.8	65.8	65.8	65.8	65.8	132.0	132.0	132.0
Conformity		CE, VDE, SVE										

Condair RS		50	60	80	100	120	140	160
Housing sizes (Master-Slave)		2x Medium			3x Medium		4x Medium	
Heating voltage		Maximum steam output						
400V 3Ph 50-60Hz	kg/h	20.0 + 30.0	2x 30.0	2x 40.0	2x 30.0 + 40.0	3x 40.0	2x 30.0 + 2x 40.0	4x 40.0
230V 1Ph 50-60Hz	kg/h	-	-	-	-	-	-	-
Control voltage		230V 1Ph 50-60Hz						
Dimensions WxHxD	mm	2x 563 x 1,097 x 406			3x 563 x 1,097 x 406		4x 563 x 1,097 x 406	
Operating weight	kg	131.6	131.6	131.6	197.4	197.4	263.2	263.2
Conformity		CE, VDE, SVE						