

Condair DL

Hybrid Humidifier

Project / No.

System / No.

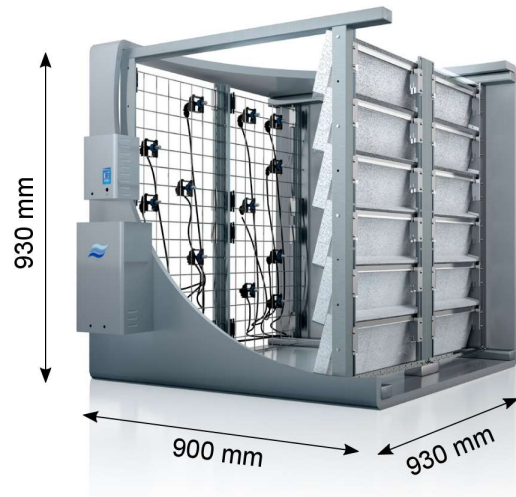
Location

Customer

Date 01.09.2021

Contact Person Michal Moravec

E-Mail Contact moravec@flair.cz



Technical Data

Unit width (interior)	930 mm	Air temperature after humidification	24,0 °C
Unit height (interior)	930 mm	Relative humidity after humidification	40,0 %
Unit length (interior)	900 mm	Humidifier capacity, nozzle pressure 7 bar	44,7 kg/h
Airflow volume	6.120 m ³ /h	Rinse water content	2,7 kg/h
Atmospheric pressure	1.013 hPa	Required quantity of demineralized water	47,4 kg/h
Altitude	0 m	Humidification efficiency factor	63 %
Air temperature prior to humidification	39,7 °C	Humidifier enthalpy	43,0 kJ/kg
Relative humidity before humidification	2,7 %	Heating capacity	31,6 kW
x1 abs. humidity upstream of humidifier	1,2 g/kg	Cross-sectional area	0,9 m ²
x2 abs. humidity downstr. of humidifier	7,4 g/kg	Cross-sectional air velocity	1,97 m/s
ΔX specific humidity increase	6,2 g/kg	Pressure loss across humidifier unit	40 Pa

Scope of supply

- ✓ Central unit with 15 humidifier steps
- ✓ Sterilization filter
- ✓ Pump with Frequency Converter
- ✓ Operating and error notification

Condair DL A 950 950 45 R 15 75 0 humidifier (complete)

Assembly

Humidifier unit, nozzle system, connection of connector hose central unit to nozzle system

Please note: On-site water inlet connection and electrical installation

Commissioning per Condair DL unit

One-off hygiene check after one year

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Humidifier housing

We recommend using a Condair humidifier housing, as its construction matches that of the humidifier installation. If other housing is to be used, housing please ensure that this is suitable for demineralized water operation and internally lined in a suitable way. The housing construction should be agreed with your local Condair agent.

Water treatment

The humidifier system must be operated with demineralized water (0.5–15 $\mu\text{S}/\text{cm}$) with a bacterial count of no more than 100 CFU/ml. We recommend using the patented Condair system, consisting of a water softener, Condair Soft, and the Condair AT 2 reverse osmosis unit for water treatment purposes. If other water treatment systems are used it must be ensured that a maximum bacterial count of 100 CFU/ml can be achieved and guaranteed. Hygiene problems caused by bacterial growth should be expected, especially during operation of the water treatment system in connection with a storage vessel that is open to the atmosphere.

Air filter

An air filter of quality grade F7 / EU7 or higher must be installed upstream of the humidifier.

Installation services

Installation services should be offered on the basis that goods already on site are available for installation and the humidifier chamber is easily accessible. Additional work required for the transport of material on site has not been included and should be invoiced separately. The humidifier chamber must be completely assembled for delivery to site and equipped with a demineralized water-resistant lining. Installation work is limited exclusively to the humidifier components supplied by us. Additional services to be supplied that have not been agreed separately will be invoiced at cost.

Delivery

Off-loaded delivery of Condair DL humidifier, and of an Condair DL housing if applicable, will in principle be made by a shipping agent of our choice. Unloading, transport to the installation site and, if necessary, weather-resistant temporary storage on site prior to the start of installation work, as well as the removal of any installation and packing material, constitute services to be provided on site.

Control

On-site enthalpy regulation must be provided and used. The regulation or control of the humidifier constitutes a service to be supplied on site unless agreed differently.

Comment

All rooftop or external water-bearing components, as well as the humidifier installations, must be protected against frost.

