



# Electrode

## Steam humidifier

- Unique control configuration
- Simple operation and maintenance
- Guaranteed quality and energy efficiency
- Wide range for industrial, commercial or cultural facilities





## Autonomous control and stabilization of air humidity

# Range pays dividends

DE Series electrode steam humidifiers from Envi provide humidification for a wide range of buildings, including health care, commercial, industrial, and government facilities. Easy installation and minimal maintenance make DE Series one of the most affordable humidification systems to purchase and install.



### EASY TO MAINTAIN

No cleaning required. Just replace the affordable steam cylinder when prompted by the controller display. The housing and painted doors resist corrosion. Model DE housing is stainless steel.

## Adaptable for every area of application

- Compact in size to fit into small spaces, with attractive cabinet for finished-space applications.
- Disperses steam into ductwork or open spaces.
- User-selectable drain water tempering, if desired.
- Modular systems availability.



clinics and hospitals



commercial buildings



galleries and museums



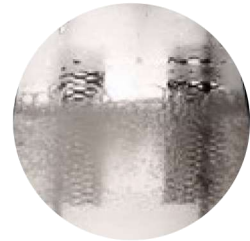
## Guaranteed quality and energy efficiency



## Best humidification performance



- Unique electrodes design to achieve the best performance.
- 13 unit sizes for a capacity range from 2 to 130 kg/h.
- Wide tap water rate conductivity use, from 125 to 1250  $\mu\text{s}/\text{cm}$ .



### ADVANTAGES

- Among the most affordable humidification systems to purchase and install.
- Accurate, responsive RH control with PID tuning for maximum performance.
- Automatic drain and fill events for optimized humidifier performance based on water type.
- Cylinder drains after a user-specified time with no call for humidity to prevent microbial growth.

## DE series fan pack or steam blower



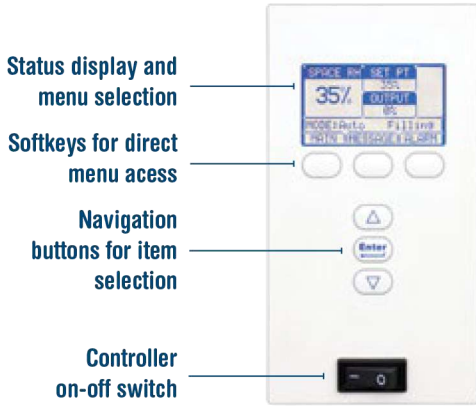
An optional fan pack or steam blower is available for use in finished spaces.

They disperse steam into open spaces and are used when there is not associated air handling equipment.



## Comprehensive control with DE series controller

### DE SERIES CONTROL INTERFACE WITH KEYPAD/DISPLAY



### DE SERIES WEB INTERFACE



## High Quality controller

DE controller provides the standard control features above, plus:

**Accurate, responsive RH control** with PID tuning for maximum performance.

**Easy-to-use menus** for all humidifier functions.

**Modbus, BACnet, or LonTalk** allow interoperability with multiple building automation systems. Modbus is standard, and BACnet or LonTalk are available options.

**Web interface** provides the capability to set up, view, and adjust humidifier functions via Ethernet, either directly or remotely through a network.

**USB port** allows firmware updates and data backup and restore.

**Cycle counter** triggers a message when it's time to replace the contactor.

**Real-time clock** allows time-stamped alarm and message tracking.

**Programmable outputs** allow remote signaling and device activation.

**Data logging** allows controller data to be downloaded to a PC for viewing and analysis.

**Enhanced diagnostics** include:

- **Test outputs** function using keypad/display or Web interface to verify component operation
- **Test humidifier** function using simulated demand to validate performance



## Envi selection tool

### Description and advantages:

- The Envi Selection Tool, for the Electrode, it is the only selection tool of its on the market. The tool enables the selection of the the best solution for each specific project and application.
- It is straightforward, simple and highly intuitive to use, enabling the selection of several units for one or more projects in a few short minutes and printout in a single document.

- It provides the technical drawings and makes it possible for the manufacturers of air-handling units to understand the exact nature of the space they need for the installation of the Electrode.
- Available for free to all our preferential clients, and it is available in DLL format for manufacturers.





## Electrode technical data



Type	DE-02	DE-05		DE-08		DE-14	DE-22	DE-34
Steam Capacity [kg/h]	2	5		8		14	22	34
Main Supply (CE Market)	230V/IN/50-60Hz		400V/III/ 50-60Hz	230V/IN/ 50-60Hz	400V/III/50-60Hz			
Main Supply (UL Market)	240V/1Ph/50-60Hz		480V/3Ph/ 50-60Hz	240V/1Ph/ 50-60Hz	480V/3Ph/50-60Hz			
Nominal Power [kW]	1,7	3,3		6		10	16,5	25
Line Consumption [A] CE/UL	7,2 / 6,9	14,5 / 13,9	4,8 / 4,0	26,1 / 25,0	8,7 / 7,2	14,4 / 12,0	23,8 / 19,8	36,1 / 30,1
Maximum Consumption [A] CE/UL	8,7 / 8,3	17,4 / 16,7	5,8 / 4,8	31,3 / 30,0	10,4 / 8,7	17,3 / 14,4	28,6 / 23,8	43,3 / 36,1
Control Voltage	24V, 50/60Hz, 75VA							
Steam Hose Connection [mm]	1 x Ø25					1 x Ø40		
Shipping Weight [kg]	17			17		23		29
Operative Weight [kg]	17			21		36		52
Dimensions [mm] Width x Height x Depth	370 x 523 x 221					450 x 612 x 300		504 x 650 x 340
Water Requirments	Pressure: 1,75 bar a 5,5 bar & Quality: from 125 µS/cm to 1250 µS/cm							

**Electrode technical data**

Type	DE-45	DE-57	DE-65	DE-90	DE-113	DE-130
Steam Capacity [kg/h]	45	57	65	90	113	130
Main Supply (CE Market)	400V/III/50-60Hz					
Main Supply (UL Market)	480V/3Ph/50-60Hz					
Nominal Power [kW]	33,3	41,7	47,8	66,7	83,3	95,7
Line Consumption [A] CE/UL	48,1 / 40,1	60,1 / 50,1	69,0 / 57,5	2x48,1 / 2x40,1	2x60,1 / 2x50,1	2x69 / 2x57,5
Maximum Consumption [A] CE/UL	57,7 / 48,1	72,2 / 60,1	80,0 / 69,0	2x57,7 / 2x48,1	2x72,2 / 2x60,1	2x80 / 2x69,0
Control Voltage	24V, 50/60Hz, 75VA					
Steam Hose Connection [mm]	1 x Ø50			2 x Ø50		
Shipping Weigth [kg]	29			63		
Operative Weigth [kg]	52			99		
Dimensions [mm] Width x Height x Depth	504 x 650 x 340			1005 x 650 x 340		
Water Requirments	Pressure: 1,75 bar a 5,5 bar & Quality: from 125 µS/cm to 1250 µS/cm					