

HygroMATIK®

WE HUMIDIFY THE AIR

FlexLine

Steam humidifier



New flexibility in award-winning quality

- A series of units with a wide performance range for every area of application
- Individual configuration
- Easy operation
- Highest quality
- Environmentally friendly, incorporating reusable components
- **Plus X Award** in three categories and „Best Product 2018“



Air humidification

for industry, commerce, culture and leisure

New flexibility in award-winning quality

The HygroMatik FlexLine as a modular system

Flexibility pays dividends.

The HygroMatik FlexLine represents a new generation of steam humidifiers which consists of a basic model that can be expanded to create an individual humidification solution suitable for all requirements.

Advantages:

- Ease of installation by means of individual pre-configuration ex factory
- Expansion options for retrofitting
- You only invest in the functions you really need

In order to make this flexibility available to our customers quickly, we have developed a **modular system**. This was awarded in three categories with the **Plus X Award** and FlexLine was named „**Best Product of the Year 2018**“.

Custom-made for every AREA OF APPLICATION.

The FlexLine basic model is the basis for all other configuration options. Thanks to its individual extension capability the FlexLine can be adapted to the requirements of different areas of application:

- Optimization of the indoor climate in industrial, commercial, cultural and leisure facilities
- Autonomous control and stabilization of air humidity in ventilation systems for industry and processes



Shopping centres and department stores

Automotive industry

Museums and galleries

Optimum humidification using the best METHODS.

FlexLine is available as an electrode as well as a heater element humidifier – depending on your water quality and the required degree of control accuracy.



Replaceable stainless steel large area electrodes for different conductivities



Resistor type heater elements in highly corrosion-resistant alloy

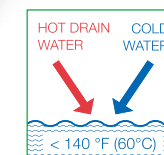


Always the correct HUMIDIFICATION PERFORMANCE.

Equip HygroMatik FlexLine with the power you need for optimum humidification. 15 performance classes with steam output from 10 lbs/h to 300 lbs/h selectable in 6 unit sizes. In addition, individual performance adjustments can be programmed both at the factory and on site.

Manifold OPTIONS for a humidification solution that fits perfectly.

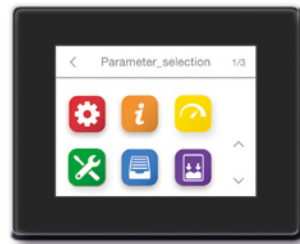
Every installation is different, and so every project places unique requirements on the humidification solution. The FlexLine can be equipped with a wide range of options to optimally meet your project requirements. Whether you choose HyCool (integrated waste water cooling) or the SuperFlush function (cylinder flushing device) depends entirely on your project. If needed, all options can be retrofitted. We are always pleased to provide advice.



Benefit from extensive functions

Powerful, smart and efficient

Excellent ease of operation.



All HygroMatik FlexLine units are equipped with a capacitive 3.5" touch display. Operation and programming are selected via a flat and intuitive menu structure analogous to modern smartphone logic. In addition to this, subsequent software updates are quickly and easily possible via USB flash.

- At a glance comprehensible pictographs provide information on the operating condition
- Simple and fast navigation
- Information and system messages displayed as plain text
- Readout of service messages with date and time
- Integrated real-time clock



Smart control – powerful and quick response.

The improved control and regulation technology of FlexLine units provides extensive possibilities that are simple and easy to operate.

- **Multi-unit operation management*** caters for optimum allocation and capacity utilization when operating multiple units and safeguards the humidity even when a unit is being serviced
- **Numerous control and reporting functions** can be assigned to up to 11 relays depending on the unit
- Freely programmable, overload-protected **digital input**
- **Integrated communication** protocol: Modbus RTU or BACnet

* Coming soon



Comprehensive service functions.

We have equipped the HygroMatik FlexLine with intelligent service functions and innovative features for operational safety. These provide a new level of safety, reliability, control and comfort.

- **Innovative:** Preventive maintenance through permanent monitoring and intelligent evaluation of operating parameters can avoid unplanned downtimes
- **Convenient:** Detailed messages enable deviations to be identified and rectified more quickly
- **Simple:** The diagnostic mode can be started directly via the touch display without commissioning the unit completely
- **Flexible:** Service intervals can be calculated by the unit according to time as well as the amount of steam produced

Optimized unit performance for efficient utilization.

As with all our products, the HygroMatik FlexLine has been developed for an especially long lifespan. The units feature technologies that not only reduce the amount of maintenance required, but also the wear of components. FlexLine offers the highest degree of efficiency where energy and resources are concerned.

- **Adjustable load shedding** between 25 and 100%, in order to adapt operation temporarily or permanently
- **Long-term continuous operation:** A robust base material provides our reusable cylinders to achieve a high temperature resistance and dimensional stability
- The **split cylinder** is easy to open and can be cleaned without using chemicals
- **Extremely durable:** All FlexLine cabinets are manufactured in corrosion-resistant stainless steel; the powder coating of the housing increases the lifespan and offers optimum work safety
- **Robust blowdown pump** for removing scale deposits to ensure long operating life cycles and minimal maintenance
- **Highest safety standard** in the market for electrode steam humidifiers due to integrated mechanical protection switch
- Heater element humidifier with electronic, **proportional level control** with no wear parts



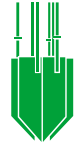
All in the green zone

Robust and durable cabinet

Reusable steam cylinders

Long and flexible service intervals

High energy and resource efficiency



FlexLine electrodes technical data

A higher humidification performance is possible by connecting units together.

| Electrical supply ⁽¹⁾ | Type | FLE05 | FLE10 | FLE15 | FLE20 | FLE25 | FLE30 | FLE40 | FLE50 | FLE65 | FLE80 | FLE100 | FLE130 |
|----------------------------------|---|-----------|--------------|-----------|-----------------------------|--------------|-----------|-----------------------------|-------------|--------------|-----------------|---------------|---------------|
| 208-240 VAC / 1 / N / 50-60Hz | Steam output [kg/h] | 4.2-4.8 | | 8.3-9.6 | | 16.6-19.2 | | | | | | | |
| | Steam output [lbs/h] | 9.2-10.6 | | 18.3-21.2 | | 35.7-42.3 | | | | | | | |
| | Rated power [kW] | 3.1-3.6 | | 6.2-7.2 | | 12.5-14.4 | | | | | | | |
| | Rated current [A] ⁽²⁾ | 15 | | 30 | | 60 | | | | | | | |
| 208-240 VAC / 3 / 50-60Hz | Steam output [kg/h] | 4.5-5.2 | 7.2-8.3 | 13.9-16.1 | | 23.1-27.0 | 29.3-30.5 | 28.8-33.4 | 49.0-51.0 | | 57.6-66.4 | 92.8-107.2 | |
| | Steam output [lbs/h] | 09.9-11.5 | 15.9-18.3 | 30.6-35.5 | | 50.9-59.5 | 64.6-67.2 | 63.5-73.6 | 108.0-112.4 | | 127.0-146.4 | 204.6-236.3 | |
| | Rated power [kW] | 3.4-3.9 | 5.4-6.2 | 10.4-12.1 | | 17.4-20.0 | 22.9-23.0 | 21.6-25.0 | 36.7-38.2 | | 2 x 21.6-25.0 | 2 x 34.8-40.2 | |
| | Rated current [A] ⁽²⁾ | 9.4 | 15.0 | 29.0 | | 48.0 | 60.0 | 60.0 | 96.8 | | 2 x 60.0 | 2 x 96.7 | |
| 440-480 VAC / 3 / 50-60Hz | Steam output [kg/h] | 4.8-5.2 | 9.6-10.4 | 14.3-15.6 | 19.1-20.8 | 24.0-26.0 | 28.7-31.3 | 38.2-41.7 | 48.0-52.2 | 62.0-67.5 | 76.4-83.4 | 95.5-104.4 | 124.0-135.0 |
| | Steam output [lbs/h] | 10.6-11.5 | 21.2-22.9 | 31.5-34.4 | 42.1-45.9 | 52.9-57.3 | 63.3-69.0 | 84.2-91.9 | 105.8-115.1 | 136.7-148.8 | 168.4-184.3 | 210.5-230.2 | 272.8-299.7 |
| | Rated power [kW] | 3.6-3.9 | 7.2-7.8 | 10.7-11.7 | 14.3-15.6 | 17.9-19.5 | 21.4-23.4 | 28.6-31.3 | 35.9-39.2 | 46.6-50.8 | 2 x 28.6 x 31.3 | 2 x 35.9-39.2 | 2 x 46.6-50.8 |
| | Rated current [A] ⁽²⁾ | 4.7 | 9.4 | 14.1 | 18.8 | 23.5 | 28.2 | 37.7 | 47.0 | 61.0 | 2 x 37.7 | 2 x 47.0 | 2 x 61.0 |
| 575-600 VAC / 3 / 50-60Hz | Steam output [kg/h] | 4.9-5.1 | 9.8-10.3 | 14.7-15.5 | 19.6-20.5 | 24.4-25.5 | 29.3-30.5 | 39.2-41.0 | 49.0-51.0 | 63.6-66.4 | 78.3-81.8 | 95.5-104.0 | 127.2-132.7 |
| | Steam output [lbs/h] | 10.8-11.0 | 21.6-22.5 | 32.4-34.2 | 43.2-45.2 | 53.8-56.2 | 64.6-67.2 | 86.0-90.4 | 108.0-112.4 | 140.2-146.4 | 172.6-180.3 | 210.5-229.3 | 279.8-291.9 |
| | Rated power [kW] | 3.7-3.8 | 7.4-7.7 | 11.1-11.5 | 14.7-15.5 | 18.3-19.0 | 22.0-23.0 | 29.4-30.5 | 36.7-38.2 | 47.7-49.8 | 2 x 29.4-31.0 | 2 x 36.7-38.2 | 2 x 47.7-49.8 |
| | Rated current [A] ⁽²⁾ | 3.7 | 7.4 | 11.0 | 14.8 | 18.4 | 22.0 | 29.5 | 36.8 | 47.9 | 2 x 29.5 | 2 x 3 x 40.0 | 2 x 47.9 |
| Number of cylinders | 1 | | | | | | 2 | | | | | | |
| Control type | FlexLine mainboard with capacitive 3.5" touch color display | | | | | | | | | | | | |
| Internal control voltage | 208-240V / 50-60Hz | | | | | | | | | | | | |
| Steam hose connection [mm] | 1 x DN 25 ID | | 1 x DN 40 ID | | 1 x DN 40 ID ⁽⁴⁾ | 2 x DN 40 ID | | 2 x DN 40 ID ⁽⁴⁾ | | 4 x DN 40 ID | | | |
| Steam hose connection [in] | 1 x 1 ID | | 1 x 1.6 ID | | 1 x 1.6 ID ⁽⁴⁾ | 2 x 1.6 ID | | 2 x 1.6 ID ⁽⁴⁾ | | 4 x 1.6 ID | | | |
| Dimensions ⁽³⁾ | | | | | | | | | | | | | |
| Height [mm/in] | 535/21.0 | | 695/27.4 | | 750/29.5 | | 785/30.9 | | 750/29.5 | | 785/30.9 | | |
| Width [mm/in] | 540/21.3 | | 540/21.3 | | 580/22.8 | | 640/25.2 | | 1130/44.5 | | 1170/46.0 | | |
| Depth [mm/in] | 320/12.6 | | 320/12.6 | | 355/14.0 | | 420/16.5 | | 355/14.0 | | 420/16.5 | | |
| Water installation | Tap water of varying qualities 1 to 10 bar / 14.5 - 145 PSI, with 3/4" connection | | | | | | | | | | | | |



FlexLine heaters technical data

A higher humidification performance is possible by connecting units together.

| FLH03 | FLH06 | FLH09 | FLH15 | FLH25 | FLH30 | FLH40 | FLH50 | FLH80 | FLH100 | | |
|---|-----------|-----------|--------------|-----------------------------|--------------|-----------|-----------------------------|---------------|---------------|---|--|
| 2.5-3.3 | 4.9-6.5 | | | | | | | | | | |
| 5.5-7.3 | 10.8-14.3 | | | | | | | | | | |
| 1.8-2.4 | 3.7-4.9 | | | | | | | | | | |
| 8.8-10.2 | 17.7-20.4 | | | | | | | | | | |
| 2.5-3.3 | 4.9-6.5 | | 12.4-16.6 | | | | | | | | |
| 5.5-7.3 | 10.8-14.3 | | 27.3-36.6 | | | | | | | | |
| 1.8-2.4 | 3.7-4.9 | | 9.3-12.4 | | | | | | | | |
| 8.8-10.2 | 17.7-20.4 | | 25.9-29.9 | | | | | | | | |
| | 5.5-6.5 | 8.2-9.8 | 13.9-16.6 | 23.1-27.4 | 27.8-33.1 | 37.0-44.0 | 43.7-52.0 | 73.9-88.0 | 87.3-104.0 | | |
| | 12.1-14.3 | 18.1-21.6 | 30.6-36.6 | 50.9-60.4 | 61.3-73.0 | 81.6-97.0 | 96.3-114.6 | 162.9-194.0 | 192.7-229.3 | | |
| | 4.1-4.9 | 6.2-7.3 | 10.4-12.4 | 17.3-20.6 | 20.9-24.8 | 27.7-33.0 | 32.8-39.0 | 2 x 27.7-33.0 | 2 x 32.8-39.0 | | |
| | 9.4-10.2 | 14.0-15.3 | 13.7-14.9 | 22.7-24.8 | 27.4-29.9 | 36.4-39.7 | 43.0-46.9 | 2 x 36.4-39.7 | 2 x 43.0-46.9 | | |
| | 4.6-5.0 | 6.8-7.4 | 11.5-12.6 | 19.1-20.8 | 23.1-25.1 | 30.7-33.4 | 39.5-43.0 | 61.3-66.8 | 79.0-86.0 | | |
| | 10.1-11.0 | 15.0-16.3 | 25.4-27.8 | 42.1-45.9 | 50.9-55.3 | 67.7-73.6 | 87.1-94.8 | 135.1-147.3 | 174.2-189.6 | | |
| | 3.4-3.7 | 5.1-5.6 | 8.7-9.4 | 14.3-15.6 | 17.3-18.8 | 23.0-25.0 | 29.6-32.2 | 2 x 23.0-25.0 | 2 x 29.6-32.2 | | |
| | 5.9-6.2 | 8.9-9.3 | 8.7-9.1 | 14.4-15.0 | 17.4-18.1 | 23.1-24.1 | 29.7-31.0 | 2 x 23.1-24.1 | 2 x 29.7-31.0 | | |
| | | | | 1 | | | | | | 2 | |
| FlexLine mainboard with capacitive 3.5" touch color display | | | | | | | | | | | |
| 208-240V / 50-60Hz | | | | | | | | | | | |
| 1 x DN 25 ID | | | 1 x DN 40 ID | 1 x DN 40 ID ⁽⁴⁾ | 2 x DN 40 ID | | 2 x DN 40 ID ⁽⁴⁾ | 4 x DN 40 ID | | | |
| 1 x 1 ID | | | 1 x 1.6 ID | 1 x 1.6 ID ⁽⁴⁾ | 2 x 1.6 ID | | 2 x 1.6 ID ⁽⁴⁾ | 4 x 1.6 ID | | | |
| Dimensions ⁽³⁾ | | | | | | | | | | | |
| 535/21.1 | | | 695/27.4 | | | 785/30.9 | | 785/30.9 | | | |
| 540/21.3 | | | 540/21.3 | | | 640/25.2 | | 1170/46.1 | | | |
| 320/12.6 | | | 320/12.6 | | | 420/16.5 | | 420/16.5 | | | |
| Fully demineralized water / cleaned condensate: 1-10 bar / 14.5-145 PSI, with 3/4" connection Partially softened water / tap water of varying qualities: 1-10 bar / 14.5-145 PSI, for 3/4" external thread | | | | | | | | | | | |

We reserve the right to make technical changes.

- (1) Other voltages upon request.
- (2) FlexLine electrodes: 1.1-fold power consumption after full blowdown. Observe actuation characteristics of automatic circuit-breakers. If necessary, select the next higher circuit-breaker level.
- (3) External width and depth dimensions. Height including drainage nozzles.
- (4) Incl. Y-piece DN 40.



Our service for 100% customer satisfaction

- Simple ordering process and short delivery times
- Long availability of replacement parts
- Technical hotline +49 4193 895-293 or hotline@hygromatik.com
- HygroMatik distributes in more than 45 countries
- Operating manuals, planning data and information on workshop events available online at www.hygromatik.com

HygroMATIK[®]
WE HUMIDIFY THE AIR

HygroMatik GmbH
Lise-Meitner-Str. 3
24558 Henstedt-Ulzburg
Germany

T +49 4193 895-231
F +49 4193 895-33
axel.zadina@hygromatik.de
www.hygromatik.com

HygroMatik USA
PO Box 10084
Lancaster, PA 17605
USA

T 717 299 5679
F 717 299 5679
info@hygromatikusa.com
www.hygromatik.com

member of **CAREL** group

