

The AT 3000 series of steam humidifiers

NORDMANN ENGINEERING



Steam humidification at the highest level: the AT 3000 series from NORDMANN.

NORDMANN
ENGINEERING

Humidity: a decisive factor in the quality of the indoor air.



Office



Hospital



Industry

Whether it is a question of people feeling comfortable and staying healthy in enclosed rooms, or high-performance computers continuing to function at their peak, or fruit, vegetables and meat staying fresh in cold stores – the correct level of humidity always has a major bearing on indoor conditions. Experts agree that a minimum of 40% relative humidity is essential in order to guarantee a room climate that is both pleasant and salubrious.

Electrode boiler humidifiers produce steam which is odourless, sterile and free of minerals – the ideal humidification for high-tech industrial processes and for people's health.

The AT 3000 series: high on performance, yet easy to operate.

The AT 3000 series is NORDMANN's top line. It comes in four different sizes of housing and covers a broad range of steam outputs from 4 to 130 kg/h in ten basic types to meet a variety of needs.

The advantages of the AT 3000 series at a glance:

- Programming level
- Servicing level
- patented SC-System (self-cleaning system)
- Anti-foam system
- Stainless steel cabinet
- RS 485 interface
- Remote indication (collective)
- Easy to install
- integrated humidity controller

Options:

Proportional adaptor for the commonest control signals: 0–2V, 0–5V, 0–10V, 0–16V, 0–20V, 2–10V, 1–5V, 0–20 mA, 4–20 mA, potentiometer min. 135 Ohm.

Remote indication of selective messages with potential-free contacts.

Remote control: the display and operating panel can be fitted – using only four wires – at a distance of up to 1200 metres from the humidifier.

Electrolytic device for too low conductive supply water.

Cabinet heating for application in environment presenting the risk of frost.

Double units



The highest outputs (64, 90 and 130 kg/h) are achieved with double units (two cylinders).

Steam blowers

These compact and silent high-performance blowers offer a myriad of possibilities and great flexibility.



The blowers for 4 and 8 kg/h, and for 15 and 23 kg/h, can be fitted either onto the humidifier itself or (separated from it) onto a wall. There are turbo-blowers available for outputs of 32 kg/h and above.



Steam-distribution pipes

Because the steam-distribution pipes (each with a separate condensate-return) are available in ten different lengths, the right pipe can be found for every air duct and every humidification distance.

Steam humidification at the highest level!

Housing of **stainless steel**.

Frontal access to all components facilitates maintenance.

Hydrodynamic **filling cup**.

Excellent resistance to corrosion: the steam cylinders are fitted with **fully-protected electrodes**.



The user-friendly **keypad** and **display** enable the operator to get the right information in a matter of seconds.

Large LED display for ease of reading.

The **programming-level** of the operating panel allows the devices to be matched to a wide variety of conditions and to the particular needs of the customer.

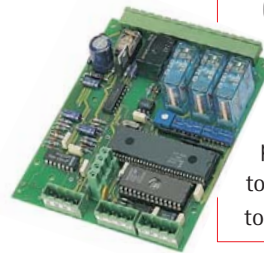
The **servicing-level** enables the various components to be checked and serviced; it is of prime importance for both the service technician and the in-house technical staff.

The patented **SC-System** (self-cleaning system), which is fitted as standard to the AT 3000 range, greatly lengthens the service life of the cylinder and keeps maintenance to an absolute minimum.

The **drainage cup body** has a large outlet diameter so as to facilitate drainage operations.

The high-performance **electronic controls** unit, with its highly-integrated micro-controller, BC (bus communication) structure and RS 485 interface, enables the AT 3000 to be linked to building management systems, permitting operating data to be called up and commands to be issued.

The electronic controls unit regulates the vaporisation process using the algorithms of Fuzzy Logic, and continuously monitors the humidifier's operations.



Technical specifications

AT 3000 series.

Operating conditions.

Type mark	Type	424	434	824	834	1534	2364	3264	4564	6464	6564	9064	13064
Heating voltage	V	400 V, 50/60 Hz											
Number of phases	~	1	3	1	3	3	3	3	3	3	3	3	3
Heating current	A	7.6	4.4	15.2	8.8	16.5	25.2	35.1	49.4	2 x 35.1	71.3	2 x 49.4	2 x 71.3
External fuses p. phase	A	16	10	25	16	25	40	50	80	2 x 50	100	2 x 80	2 x 100
Type mark	Type	422	432	822	832	1532	2362	3262		6462			
Heating voltage	V	230 V, 50/60 Hz											
Number of phases	~	1	3	1	3	3	3	3		3			
Heating current	A	13.2	7.6	26.4	15.3	28.6	43.9	61.0		2 x 61.0			
External fuses p. phase	A	20	16	40	25	40	63	100		2 x 100			
Steam output	kg/h	4	4	8	8	15	23	32	45	64	65	90	130
Minimum capacity	kg/h steam	0.8	0.8	1.6	1.6	3	4.6	6.4	9	6.4	13	9	13
Nominal power	kW	3.0	3.0	6.1	6.1	11.4	17.5	24.3	34.2	2 x 24.3	49.4	2 x 34.2	2 x 49.4
Design data													
Dimensions	width mm	390	390	390	390	470	470	525	525	975	525	975	975
	height mm	585	585	585	585	645	645	715	715	730	715	730	730
	depth mm	230	230	230	230	305	305	360	360	385	360	385	385
Steam outlet diameter	mm	1 x 22	1 x 22	1 x 22	1 x 22	1 x 35	1 x 35	1 x 35	2 x 35	2 x 35	2 x 35	4 x 35	4 x 35
Weight (empty)	kg	11	11	12	12	17	18	28	29	62	30	64	66
Operating weight	kg	14.5	14.5	18.5	18.5	32	33	53	54	112	55	114	116
Accessories													
Humidity controller	qty	1	1	1	1	1	1	1	1	2	1	2	2
Steam nozzle	qty	1	1										
Control electronics													
Supply voltage	V	220–240 V, 50/60 Hz, 1~											
Proportional adaptor	qty	1	1	1	1	1	1	1	1	2	1	2	2
Steam distribution pipes for duct use													
22-xxx mm	qty	1	1	1	1								
35-300 mm	qty					1							
35-450 mm	qty					1	1		2				
35-600, 35-900 mm													
35-1200, 35-1500 mm	qty					1	1	1	2	2	2	4	4
Steam hose													
Ø 22/29 mm	qty x mm	1	1	1	1								
Ø 35/43 mm	qty x mm					1	1	1	2	2	2	4	4
Condensate hose													
Ø 6/10 mm	qty x mm	1	1	1	1	1	1	1	2	2	2	4	4
Steam blowers for direct room humidification													
Fitted onto humidifier	qty	1	1	1	1	1	1						
Fitted separately	qty	1	1	1	1	1	1	1	1	2	1	2	2

* Standard heating voltage 400 V (380–415) or 230 V (220–240), 50/60 Hz. Also available: 200, 208, 277, 347, 440, 460, 480 and 500 Volt.

** Standard control voltage 220–240 V, 50/60 Hz. Other control voltages on request.

Water pressure: 1–10 bar (0.1–1 MPa).

Water conductivity: (normal tap water) 125–1250 microsiemens/cm.

Operating pressure: 0 bar (pressureless).

Air pressure in duct: +/- 1000 Pa (+/- 100 mm water-head), suitability for use in higher air pressure on request.

Ambient temperature: 1°–50 °C.

Protection degree: IP 43 (electric panel).



Quality

All components undergo continuous checks by the manufacturer, thereby guaranteeing the high quality of these humidifiers. NORDMANN has obtained the ISO 9001:2000 certificate, and its production facilities are regularly inspected by the German TÜV Product Service.

Subject to change without prior notice.

Manufacturer:

Nordmann Engineering AG

✉ P.O. Box, CH-4143 Dornach 1 / Switzerland

🏠 Bruggfeldweg 11, CH-4147 Aesch / Switzerland

Tel. +41 61 467 76 66

Fax +41 61 467 76 77

E-mail: info@nordmann-engineering.com

Internet: www.nordmann-engineering.com

NORDMANN
ENGINEERING