

NORDMANN ENGINEERING



From the beginning, our efforts have been focused on ensuring the wellbeing of both people and materials; in other words, providing perfectly controlled humidity.

Even our very first products were designed not only for professional air humidification but also as steam bath generators for use in spas and steam rooms.

Innovation and quality are the driving force behind everything we do at Nordmann Engineering. We use only state-of-the-art technologies and materials, and work continuously to develop new

approaches, such as a revolutionary self-cleaning system that reduces the formation of limescale in the steam cylinder and is protected by patent worldwide.

The international distribution of Nordmann products is restricted exclusively to a network of carefully selected agents. A long list of excellent references from all over the world confirms the outstanding relationship we enjoy with our customers.

Nowadays, many hotels and health clubs offer spa facilities for the wellbeing of their guests and members: a swimming pool, a sauna

and, more and more often, even a steam room. But steam baths are increasingly to be found in private homes, their benefits simply unmatched.

In the home, a steam bath cabin can take up little more room than a shower, and the output and specifications of NORDMANN steam bath generators can be adapted precisely to your needs. In addition, NORDMANN supplies a whole system of steamgenerating components suitable for use in installations of all types, including full-scale spas.

NORDMANN ENGINEERING

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Steam bathing

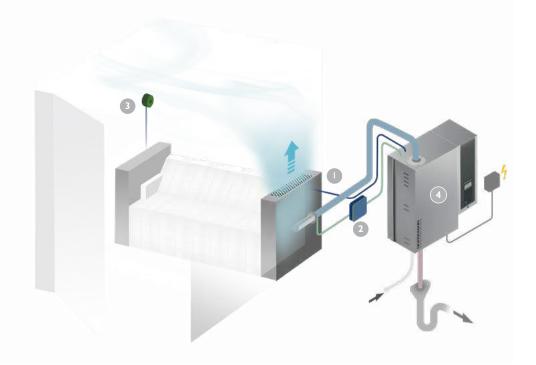
Taking a steam bath has a positive effect on our health. It eases rheumatic pains and tension, can provide immediate relief from respiratory problems, helps to make the skin softer, and activates the immune system. Elderly people often find a steam bath more agreeable than a sauna, while younger people are likely to appreciate its benefits after physical exertion.

Steam generation

The steam generation can be started at the push of a button and the cabin will be heated. The steam can be seen and felt by means of fresh air circulating inside the room. The auto sensitive control system adjusts the temperature to the entered set value by increasing or decreasing the steam production accordingly without notice by the bather.

Aromatic stimulation

The effects can be intensified by aromatic fragrances and coloured lighting. After spending ten to fifteen minutes in the steam room, you feel simply reborn.



- Steam distribution
- 2 Fragrance pump
- 3 Temperature sensor
- 4 Steam bath generator



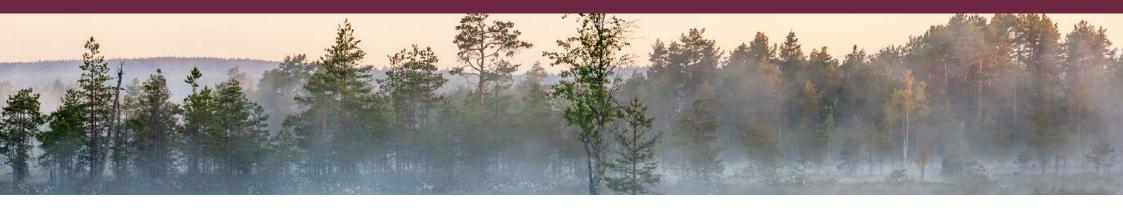


NORDMANN Omega Pro

High capacity and unwavering dependability

Especially commercial and large steam bath installations require steam generators with sufficient capacity and dependable reliability. Nordmann Engineering designed the Omega Pro, which makes use of ohmic heating, specifically for such applications.

Using demineralized water you can install the **Omega ProVE** (without scale management)





Patented lime scale management

Omega Pro's patented lime scale management employs a unique external scale collection tank. The system discards lime scale from the steam cylinder, moving it to the tank, which empties easily.



Lime scale collection sump

The scale collection tank removes by service personnel easily without the need to open the unit.



Designed to prevent scale build-up

In the water inlet and outlet areas, the system keeps the temperature so only a minimum of lime scale has a chance to accumulate in the lines, ensuring uninterrupted operation.





NOTE: There is no integral steam bath control system.

Touchscreen display

Thanks to an intuitive menu, the unit operates with ease, providing full-text fault messages for better interaction with the steam unit.



USB port for software updates and data logging

Technical Data

Steam output	kg/h	5	8	10	16	20	24	30	40	50	60	80
Rated power	kW	3.8	6.0	7.4	12.0	14.9	18.0	22.5	30	37.5	44.6	60
Units	Quantity	I	I	I	I	I	I	I	I	2	2	2
Omega Pro	Width mm	420	420	420	530	530	530	530	530	2×530	2×530	2×530
Dimensions with scale	Height mm	997	997	997	1097	1097	1097	1097	1097	1097	1097	1097
management	Depth mm	370	370	370	413	413	413	413	413	413	413	413
Net weight	kg	27.2	27.2	27.2	40.3	40.3	40.3	40.3	40.3	2×40.3	2×40.3	2×40.3
Betriebsgewicht max.	kg	40.2	40.2	40.2	65.8	65.8	65.8	65.8	65.8	2×65.8	2×65.8	2×65.8
Omega Pro	Width mm	420	420	420	530	530	530	530	530	2×530	2×530	2×530
Dimensions without scale	Height mm	670	670	670	780	780	780	780	780	780	780	780
management	Depth mm	370	370	370	413	413	413	413	413	413	413	413
Net weight	kg	26	26	26	39.1	39.1	39.1	39.1	39.1	2×39.1	2×39.1	2×39.1
Operating weight	kg	34	34	34	59.6	59.6	59.6	59.6	59.6	2×59.6	2×59.6	2×59.6
Heating voltage	3x200V / 1x230V / 3x440V / 3x440V / 3x440V / 3x460V / 3x500V / 3x600V											
Control voltage		230VAC/1 Ph, 50-60Hz										
Type of protection		IP21										
Conformity						CE,VD	E, DVGW					



System Features and Components	Standard	VE	Option
Scale management			
Scale deposition container			
Cold water zone			
Touch Control		-	
Multilingual, user-friendly menu		-	
Program, service and information levels		-	
Fine steam capacity control		-	
Real time clock / Timer programming		-	
Div. control signals (0-10 V and more)		-	
Stainless steel cylinder		-	
Drainage pump		-	
RS482 interface with Modbus / BACnet IP		-	
Terminals	•	-	
Installation material		-	
RFI Remote and failure indication relay			•
Mounting frame			
BMS interface LonWorks			•
Drainage water cooling/ Hygiene flush			-
CVI integrated control voltage 230V			•
TRTransformer 400V to 230V			•
Insolation steam cylinder			
Valve for autmatically total drainage (Hygiene)*			•
Overpressure security valve			•



The filling cup is certified for compliance with the latest DVGW regulations, meaning the steam generator can connect to the input water line without the need for a disconnector.





NORDMANN Omega small with display



NORDMANN Omega small without display



NORDMANN Omega medium with display



NORDMANN Omega medium without display

NORDMANN Omega

Compact construction form - reliable quality

The Omega is the guaranty of fast steam production regardless of the quality of the water. It comes in 2 extra compact dimensions and can produce from 4 to 20kg of steam per hour. It produces steam in less than 4 minutes from ambient temperature and the keep warm feature enables instant steam production. Maintaining the Omega is reduced to the minimum and can be fully proceeded in less than 5 minutes Chrono.

Modular construction - for different demands

The 4.3 Inch touchscreen display enables numerous settings and programming such as timing sessions on daily and weekly basis, automatic on/off, instant steam. The Omega touchscreen even enables to troubleshoot the entire machine and solve any technical issue in a matter of seconds by simply following the instructions. Alternatively, for an extremely cost efficient solution, the Omega is available without display and all settings can be adjusted via a web interface. The generator can be switched on and off using the integrated button or a deported button fitted on the steam cabin.

Device settings with integrated control

The control of further functionalities for steam bath or sauna such as light, fan, fragrance, bench and wall heating, or music can be conveniently adjusted via our new integrated SPA Control. Thus further applications such as Caldarium, Rasul, Bio- and Fin Sauna and also the control of Dual-Cabins are possible.





Waterseperation

The water cup seperates the freshwater from the sewage. So a contimination of the water is impossible. The steam generator can be connected to the input water line without the need for a disconnector.



Interface

Ethernet interface for the individual device programming and for software updates.



Hybrid control

Heating elements are controlled by relay and semiconductor. This extends the lifespan substantially and increases the reliability.



Wallstand

The filter cartridge and the fragrance pump can be fixed to the practical wallstand and the perfum bottle can attached safely.

Technical data

Type of protection	IP20								
Heating voltage	Volt	230 V/1	400 V/3	400 V/3	400 V/3	400 V/3			
Temperature sensor		PT100, PT1000, KTY							
Water quality	Water, deminer	alized water (osm	osis)						
Max. Operating weight	kg	12.9	12.9	19.6	19.6	19.6			
Net weight	kg	10.6	10.6	14.4	14.4	14.4			
	Depth mm	150	150	270	270	270			
	Height mm	350	350	350	350	350			
Dimensions	Width mm	470	470	470	470	470			
Housing size		small	small	medium	medium	medium			
Rated power	kW	3.5	6,5	9,5	12,5	15,5			
Steam output	kg/h	4	8	12	16	20			





NORDMANN AT4D

High performance

The NORDMANN AT4D produces sterilized, hygienic, odour-free steam. With auto-sensitive temperature control, innovative technology generating between 5 and 65 kg of steam per hour, and an extensive range of accessories, it meets all the specifications required for the safe operation of a high-quality steam bath.

Configurable

Another very useful advantage the AT4/AT4D features is its ability to configure remotely. The steam generator unit can install separately from the control unit.

This unique design makes the AT4/AT4D the choice when space is at a premium or for other individual applications. Standard cable length is 4 metres.

The water unit contains:

- Steam cylinder
- Replenishment system
- Inlet valve
- Blowdownpump
- SC-System (Self-cleaning)

The control unit contains:

- Electronics
- Control pane
- Circuit breaker
- Wire terminals









Easy to install

With a separate control unit, easy accessibility and external water and steam connections, the system could not be easier to install.

Intelligent water management

The water management automatically adjusts to local water conditions, keeping water consumption to a minimum.

Applications

The steam bath generator AT4D CALDARIUM is also suitable for Caldarium applications. Therefore a humidity control is standing next to an individually adjustable temperature control.

The NORDMANN AT4D steam cylinder

The patented self-cleaning system prevents limescale produced during steam production from forming deposits on the electrodes and cylinder sides. It is simply removed using the blowdown pump. And for users that means maximum reliability and long service intervals.

Easy to use

A three-inch graphic user interface provides easy access to important operating parameters such as temperature, lighting, cabin ventilation and fragrance injection.

Remote control up to 1.2 km

In hotels, health clubs and spa complexes, you have simple control of the steam bath from reception or another remote site.

AT4D Spa Display

The NORDMANN AT4D Spa Display is extremely user-friendly enabling you to control and program all the features and options. Lights, fragrance, temperature, timing of sessions is now at the end of a finger touch.

Two versions are available, surface- or flush-mounted, with only 19 mm total thickness and only 3mm over-surfacing when built-in. The frame circling comes in three different versions to match the end-users taste: steel-brushed, black or white glass. The unique magnetic circling frame enables a fast changing of color and style making it interchangeable at all time.

Two choices of screen background color layout (Black or white) enable to match the finishing of your choice.

Building technology

The AT4D can be integrated in existing building technology using the Modbus standard. If preferred, the steam generator may be networked via @Link to BACnet/IP and LonWorks.



Technical data

Steam output	kg/h	5	8	15	23	32	45	65
Capacity range	kg/h	1 - 5	1.6 - 8	3 - 15	4.6 - 23	6.4 - 32	9 - 45	13 - 65
Nominal power	kW	3.8	6.0	11.3	17.3	24.0	33.8	48.8
Steam cylinder	Quantity	J.0	1	11.5	17.5	1	1	10.0
occarr cymraer	Quartery			<u>'</u>	•	•		
Heating voltage*	Volt			400 V /	3~ / 5060 Hz	:		
Nominal current	Ampere	5.4	8.7	16.2	24.9	34.6	48.7	70.4
Classification	Туре	534	834	1534	2364	3264	4564	6564
Heating voltage*	Volt			230 V /	3~ / 5060 Hz			
Nominal current	Ampere	9.4	15.1	28.2	43.3	60.2		
Classification	Туре	532	832	1532	2362	3262		
Heating voltage*	Volt		400 V / 2~ / 5060 Hz					
Nominal current	Ampere	9.4	15.0					
Classification	Туре	524	824					
Heating voltage*	Volt		230 V / I~ / 5060 Hz					
Nominal current	Ampere	16.3	26.1					
Classification	Туре	522	822					
Dimensions	Width mm	428	428	508	508	563	563	563
	Height mm	575	575	620	620	640	640	640
	Depth mm	255	255	345	345	354	354	354
Net weight	kg	12	12	19	19	28	28	30
Operating weight	kg	17	17	29	29	65	65	67
Control voltage				230 VA	C/1, 5060 Hz			
Temperature sensor				KTY 81-10	0, PT100, PT10	000		
Water quality		l	Jntreated drink	ing water wit	h a conductivit	y of 1251250	0 μs/cm	
Type of protection					IP21			
Conformity		CE,VDE, GOST						

* other heating voltages on request

Standard Option **Characteristics** SC-System 5-line graphic display Multilingual, user-friendly menu structure Program-, service and info level Adjustable de-scaling modes Real-time clock and timer programming Auto-sensitive temperature control Self diagnostic capabilities Remote operation and fault indication RS485 interface with Modbus protocol Mounting rails Terminals Split version Remote control panel Steam bath nozzles Touch-Screen Panel Building Management System (BACnet IP / Lon Works) Temperature sensor Fragrance pump Silence (Schütz) Stage Light Trafo CFI Trafo

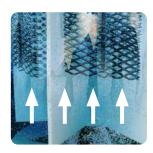




- I Separate control unit
- 2 Steam cylinder
- 3 Patented self-cleaning (SC) system
- 4 Electrogalvanized housing with powder coating
- 5 Blowdown pump

The patented NORDMANN SC system drastically reduces the formation of limescale in steam cylinders and automatically expels the minerals in suspension.

The result: service intervals are much longer and reliable steam production is guaranteed.



The SC system has an unusual, advanced feature that puts it in a class of its own: Air is blown cyclically into the steam cylinder causing the water to swirl. This keeps the particles of limescale in the entire steam cylinder constantly in motion.



This prevents the formation of limescale deposits on the heating electrodes and on the bottom and sides of the cylinder.



and the water pipes.

The formation of limescale in steam bath generators is a familiar

The longer the scale is left to form, the more it affects the effici-

ency and reliability of the heating electrode, steam cylinder walls

problem that is inevitable when ordinary tap water is used.

The fine particles of scale suspended in the water are rinsed out during the automatic, cyclical blowdown phase.



When the blowdown process is completed, the system is automatically refilled with fresh water and operation is uninterrupted. The NORDMANN steam bath generator's SC system does not prevent the formation of limescale completely but it does significantly increase the intervals between services.





NORDMANN ES4

Steam baths with hygienic steam

The ES4 generates sterilized, hygienic, odour-free steam. Available with seven practical power levels and in two different sizes, the NORDMANN ES4 produces between 5 and 65 kg of steam per hour.

Durable and rugged

The high-quality finish guarantees a long service life. A robust, hot-dip galvanized housing contains NORDMANN's time-tested steam cylinder. All in all, an affordable and highly reliable means of generating the steam needed for all types of steam baths.

Easy to install

The front flap of the housing is removable, providing convenient access to all components. Installation and servicing work is quick and simple.





The NORDMANN ES4 steam cylinder

The exchange cylinders are designed for use with ordinary tap water.

The extra-large, galvanized electrodes have proved their reliability over many years of practical use.



Intelligent water management

In tandem with the electronically controlled water management system, the steam cylinder adapts perfectly to local water quality. This guarantees safe, reliable operation while reducing water consumption to a minimum. The cylinder can be changed in seconds and downtimes are minimal.

Technical data

Steam output	kg/h	5		8	15	23	32	45	65
Capacity range	kg/h	1 - 5		1.6 - 8	3 - 15	4.6 - 23	6.4 - 32	9 - 45	13 - 65
Nominal power	kW	3.8		6.0	11.3	17.3	24.0	33.8	48.8
Heating voltage*	Volt				400V / 3~	/ 5060 H:	z		
Nominal current	Ampere	5.4		8.7	16.3	24.9	34.7	48.8	70.4
Classification	Туре	534		834	1534	2364	3264	4564	6564
Heating voltage*	Volt				230V / 3~	/ 5060 Hz	z		
Nominal current	Ampere	9,4		15.1	28.2	43.3	56.5		
Classification	Туре	532		832	1532	2362	3262		
Heating voltage*	Volt				400V / 2~	/ 5060 Hz	z		
Nominal current	Ampere	9.4		15.1					
Classification	Туре	524		824					
Heating voltage*	Volt	230V / I∼ / 50.60 Hz							
Nominal current	Ampere	16.3		26.1					
Classification	Туре	522		822					
Dimensions	Width mm	377		377	377	492	492	492	492
	Height mm	612		612	612	351	351	351	351
	Depth mm	279		279	279	670	670	670	670
Net weight	kg	19		19	19	28	28	28	28
Operating weight	kg	24		24	30	65	65	65	65
Control voltage		230VAC/1, 50.60 Hz							
Control signal		Ein/Aus (24VDC), 010V							
Water quality		Untreated drinking water with a conductivity of 1251250 µs/cm							
Type of protection		IP20							
Conformity		CE, VDE, GOST							

* other heating voltages on request





NORDMANN DC4

The NORDMANN DC4 produces sterilized, hygienic, odour-free steam. With auto-sensitive temperature control and innovative technology generating between 2 and 4 kg of steam per hour, it meets all the requirements for safe steam bath operation in private homes and hotels.

Safe and simple

You don't have to be a technical wizard to understand the NORDMANN DC4: the housing lifts off completely and the cylinder can simply be removed and exchanged. The current-bearing components and electronics are so well protected that it is impossible to touch them when changing the cylinder.

Economy itself

The NORDMANN DC4 works to maximum efficiency with ordinary, untreated tap water. The integrated water management system ensures that even blowdown operations require a minimum of additional water.







Easy to use

On the NORDMANN DC4, all control data and instructions can be read off from the large liquid crystal display. The desired settings are entered in cleartext using the intuitive menu.

Fast, simple servicing

The steam generator's smart design permits safe, easy replacement of the cylinder. The electronics and other current-bearing components are effectively protected against water and cannot be touched.

The soul of discretion

Thanks to its simple, clear-cut design, relatively small size and – if desired – concealed water and power connections, the NORD-MANN DC4 blends perfectly into any type of steam bath environment.

Technical data:

Heating voltage	230VI 240VI 200V2 ~/5060 Hz				
Steam output	2 kg/h 4 kg/h				
max. electrical output	1.6 kW	3.1 kW			
Operating weight empty	6	.2 kg			
Operating weight filled		II kg			
Dimensions (W \times H \times D)	265 mm × 650 mm × 175 mm				
Control signals	on/off , (24 VDC), 0-5 VDC, 1-5 VDC, 0-10 VDC, 0.20 mA, 4-20 mA				
Water quality	untreated drinking water with a conductivity of 1251250µS/cm				
Admissible water pressure	110 bar				
Admissible water temperature	I40 °C				
Admissible ambient temperature	I40 °C				
Admissible ambient humidity	max. 75 %rF				
Protection	IP20				
Conformity	CE, VDE, GOST				

Characteristics

5-line graphic display	•
Multilanguage, user-friendly menu structure	•
Adjustable de-scaling modes	•
Real time clock	•
Timer programming	•
Internal PI controller	•
Self-diagnostic system	•
Control signal input	•
Mounting bracket for easy installation	•
Remote operation and fault indication	
Hose set for concealed mains connections	





