

Humidify and save

CAREL



gaSteam
natural power



Integrated Control Solutions & Energy Savings

gaSteam: even more reliable and safer.

The ideal choice to humidify while saving.



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CE-0085BM0395

CAREL's experience in the humidification sector has led to the development of gaSteam, the range of gas-fired humidifiers, available in 45, 90 and 180 kg/h models.

gaSteam burns natural gas or LPG and is fitted with a sophisticated built-in electronic controller that can also manage other types of gas by simply setting a number of burner calibration parameters.

Today the range has been further improved with the re-design of the product, ensuring even higher efficiency, reliability and safety. Niflon coating has been introduced on the heat exchanger: Niflon is effective in protecting metals against corrosion, while also being non-stick. Combined with the exclusive design of the removable, light alloy heat exchanger, this ensures very high energy efficiency and extremely easy maintenance.

The price gap between gas and electricity makes gaSteam the ideal choice for high load applications, where steam is required many hours a day, allowing savings in the thousands of euro per year. Continuous modulation of the steam flow-rate means the appliance is also suitable for precision applications. gaSteam can operate on mains drinking water or demineralised water (R.O.).

Easy to install, it features a room-sealed combustion chamber with premix burner, and a negative pressure gas valve with double mechanical closing; furthermore, it is fitted with multiple safety devices and comes with ETL and CE certification (issued by TÜV-DVGW), as well as certification by various national safety organisations.



Energy saving

gaSteam works by burning natural gas, a clean and economical energy source



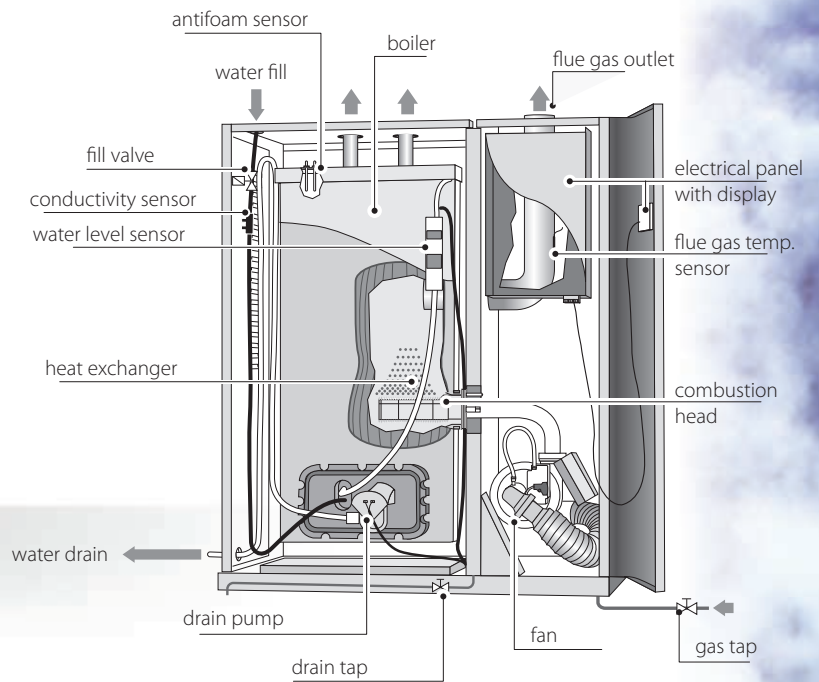
Easy installation

The humidifier is designed to operate on different types of gas and with different flue configurations, for simple and fast installation



High efficiency

The advanced design of the large aluminium alloy heat exchanger ensures higher efficiency, up to 96%



High-efficiency light alloy heat exchanger with Niflon non-stick corrosion-proof coating



Premix gas burner, low polluting emissions and continuous capacity modulation, fitted with proportional gas valve, for operation with maximum efficiency and safety



Electronic controller with user-friendly graphic interface for immediate parameter settings and simplified diagnostics



The flue gas temperature sensor and the display of the value measured not only means operation can be stopped in the event of anomalies, but also helps understand when the heat exchanger requires cleaning.



Advanced control

gaSteam is fitted with a new generation electronic controller, with complete functions and a simple and intuitive graphic interface



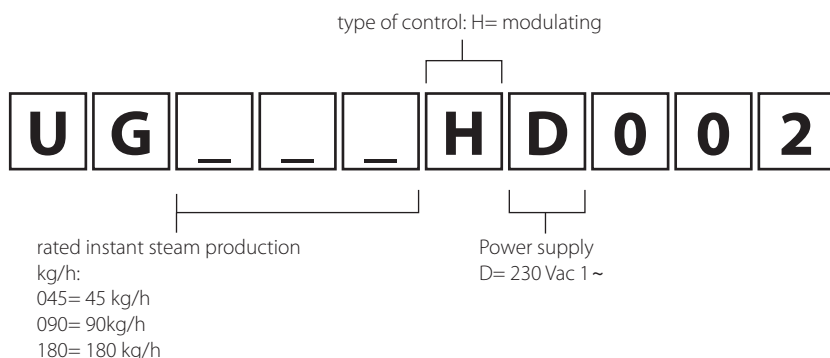
Safety

gaSteam has numerous safety mechanisms, including: negative-pressure double-closing gas valve, safety vacuum switch on combustion air intake, flame detector, flue gas temperature sensor, Klixon flue gas thermostat (double independent safety device)



Maintenance

The controller features diagnostic functions and displays the alarm log, while the unit as a whole has been specially designed to make cleaning and routine maintenance easier



Technical specifications

Models

Specifications	UG045*	UG090*	UG180*
General			
Rated steam production (kg/h)	45	90	180
Modulation of steam production	25 to 100%	25 to 100%	12.5 to 100%
Heat input (kW)	34.8	65	130
Heat output (kW)	33	62.5	125
Power supply	230 Vac (-15 to +10%), 50/60 Hz single-phase		
Power input at rated voltage (W)	180	250	400
Steam outlet pressure limits (Pa)	-1000 to +2000		
Steam connection (dia. mm)	2x40	2x40	4x40
Gas connection	1"G	1"G	1" 1/4 G
Types of gas	natural gas; propane; butane		
Flow-rate/pressure, nat. gas (G20) (m3St/h - Pa)	3.68 - 2000	7.21 - 2000	13.4 - 2000
Flow-rate/pressure, nat. gas (G25) (m3St/h - Pa)	4.2 - 2000	8.7 - 2000	17.5 - 2000
Flow-rate/pressure, propane (G31) (m3St/h - Pa)	1.43 - 3000	2.68 - 3000	5.36 - 3000
Flow-rate/pressure, butane (G30) (m3St/h - Pa)	1.10 - 3000	2.06 - 3000	4.12 - 3000
Operating conditions	1T40 °C, 10 to 90% RH non-cond.		
Storage conditions	-10T70 °C, 5 to 95% RH non-cond.		
Index of protection	IP20		
Water fill			
Connection	3/4"G male		
Temperature limits (°C)	1T40		
Water pressure limits (MPa - bar)	0.1 to 0.8 - 1 to 8		
Instant flow-rate (l/m)	18		
Total hardness (°fH) (*)	5 to 50		
Maximum conductivity limits (µS/cm) (*)	1500		
Water drain			
Connection (dia. mm)	40		
Temperature (°C)	≤100		
Instant flow-rate (l/m)	25		
Flue gas			
Air intake (dia. mm)	80	80	2x 80
Flue (dia. mm)	80	80	2x 80
Gas flow-rate flue (natural gas G20) (kg/s)	0.0163	0.0303	0.606
Flue gas temperature (natural gas G20) (°C)	123	175	165
NO _x emissions class	5	5	4
Network			
Network connection	Modbus®, CAREL supervisor; optional LonWorks®, BACnet™, RS232+GSM, Ethernet®		
Control			
Integrated controller	●	●	●
External ON/OFF or proportional control	●	●	●
Preheating	●	●	●
Alphanumeric display	●	●	●
Remote ON/OFF; alarm relay	●	●	●
Limit probe supported	●	●	●

(*) gaSteam can run on completely demineralised water (0 µS/cm, 0 °fH).

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