



PUT WASTE HEAT TO USE

with our gas-heated steam humidifier,
Condair **GS**



Humidification and evaporative cooling

 **condair**

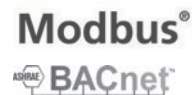
Cost-effective and eco-friendly steam production with gas as the primary energy source

Touch Controller for precise control

The Condair GS is available in six different output variants, allowing continuous adjustment from 10 kg/h to a maximum of 240 kg/h. The microprocessor-controlled device interface can be operated with all commonly-used control signals.

Perfect integration into Building Management Systems

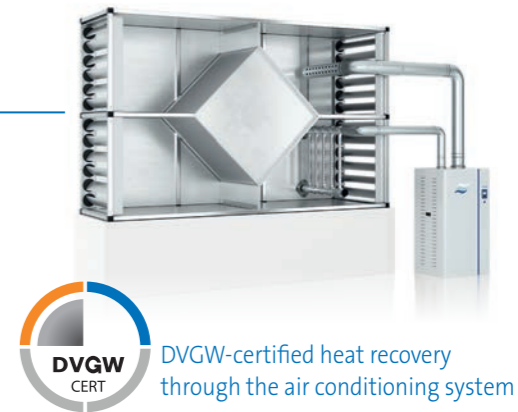
Can be connected to any current BMS system (Modbus and BACnet).



Robust stainless steel construction

Gas-fueled steam humidification

For efficient operation, gas as the primary source of energy can be used as a cost-efficient alternative to conventional steam humidification with electricity.



DVGW CERT DVGW-certified heat recovery through the air conditioning system

With Condair GS, exhaust gas can be used for heat recovery. This unique, DVGW-certified technology eliminates the need for a chimney, so both the initial investment and operating costs are exceptionally affordable.

High energy efficiency with optional condensing heat exchanger

With an auxiliary heat exchanger at the fresh water inlet (GS CS version), heat can be transferred from the exhaust gas to the humidification water with high thermal efficiency.

Heat exchange chamber

The innovative heat exchange chamber is protected from heat loss with a patented insulation system and achieves a thermal efficiency of over 90%.

Condair GS units are the standard in high-efficiency humidification with gas. The exhaust gas can be discharged directly through HVAC exhaust air. Exhaust gas heat is mostly recovered through heat

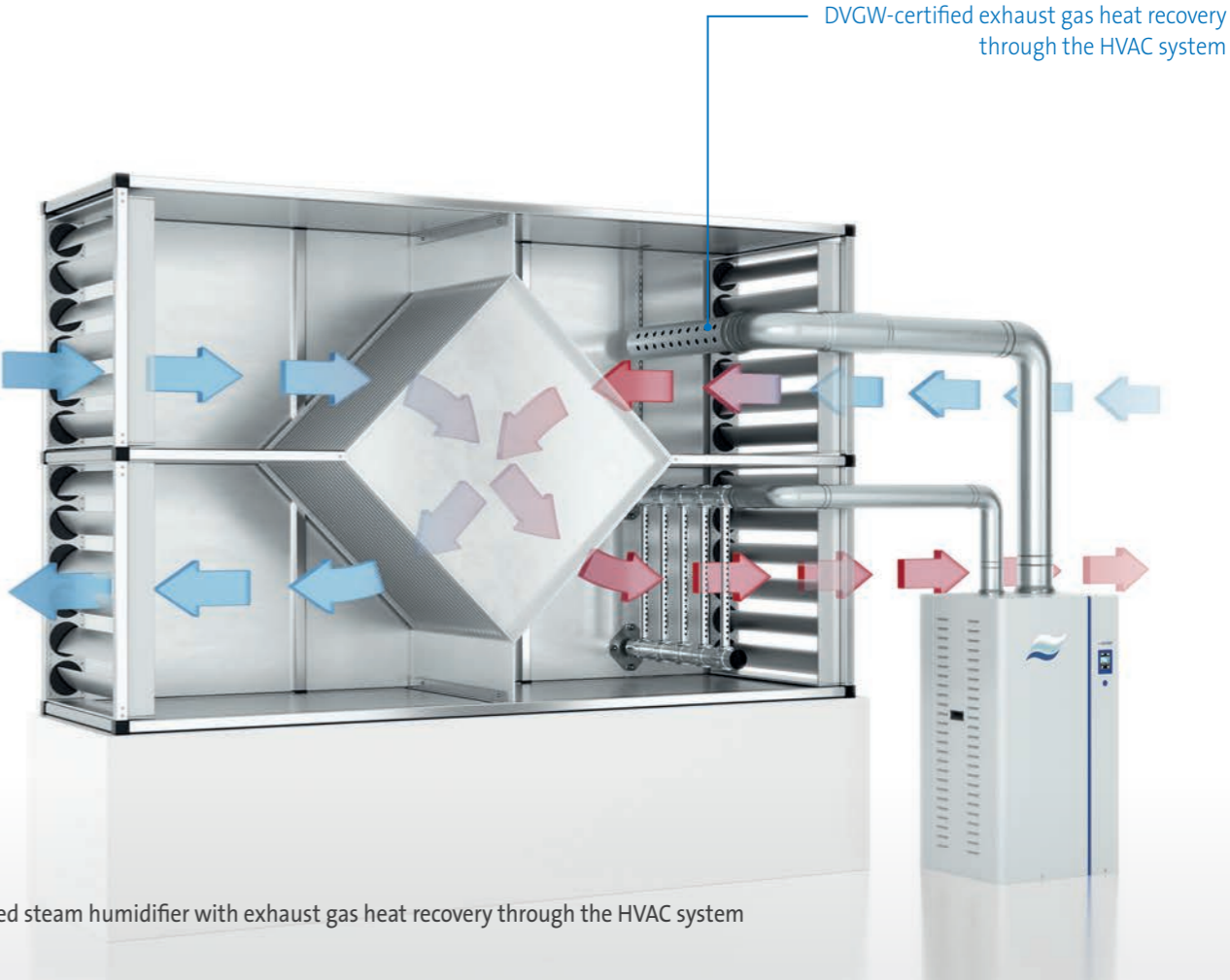
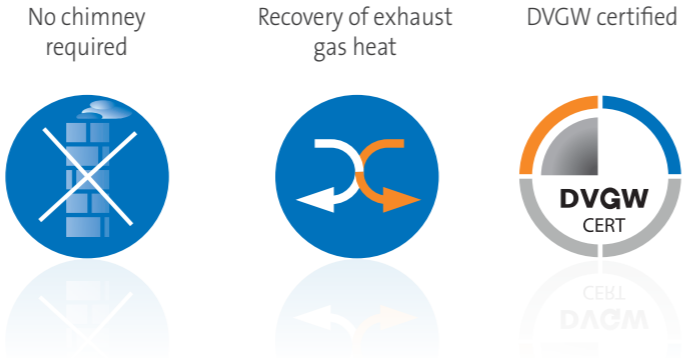
recovery in the HVAC unit. Condair GS is the first choice when it comes to top efficiency and easy installation. And it's easy to add these units to existing systems.

Exhaust gas heat recovery through the HVAC system

Using HVAC exhaust air to discharge exhaust gas provides some significant advantages. First, installation is significantly easier, as a chimney is no longer required. Exhaust gas heat is used regeneratively through heat recovery in the HVAC unit, with no negative impact on the quality of exhaust air.

The energy in the exhaust gas becomes available for free, and the resulting savings can be applied to your ventilation heating needs.

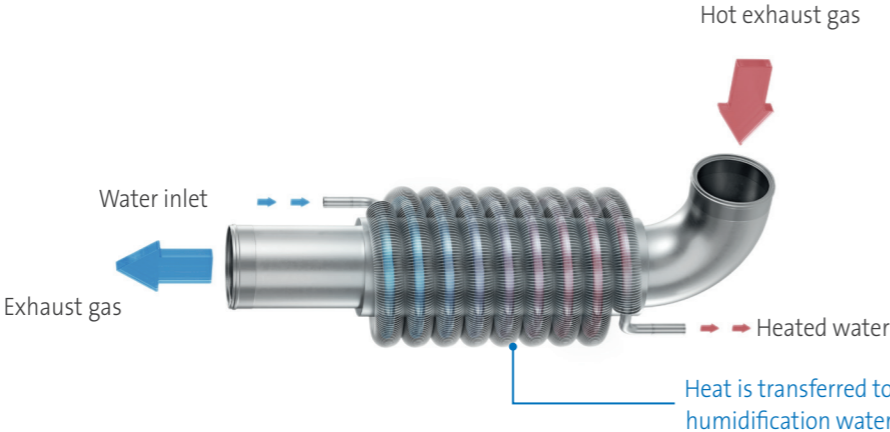
A range of power levels let you select the right unit for your needs, for use in a wide area of applications. In addition, the heat output achieved in the HVAC unit increases with the volume of steam.



Efficient condensing heat exchanger with conventional exhaust gas discharge (option)

If there is no possibility of heat recovery through the HVAC system, energy efficiency can be increased by adding a condensing heat exchanger to the humidifier itself.

In the Condair GS CS version, a condensing heat exchanger at the fresh water inlet transfers heat from the exhaust gas to the humidification water with high thermal efficiency.



Efficient technology pays off!

Total usable exhaust gas heat output is the result of sensible heat, achieved through the high exhaust gas temperature, and latent heat, in the form of steam.

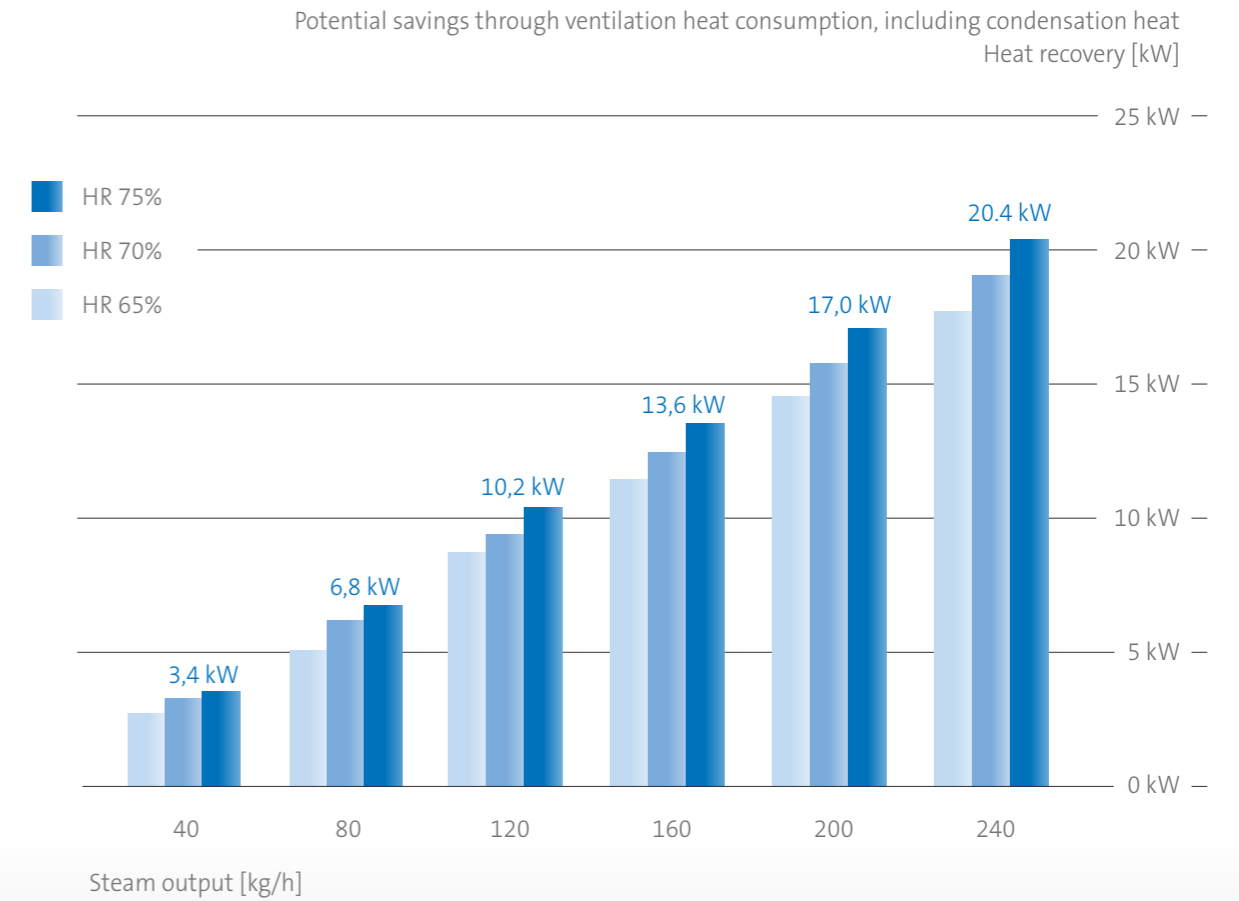
The values in parentheses represent sensible heat gain without condensation heat.

| Steam output | Exhaust gas heat | HR 65% | HR 70% | HR 75% |
|--------------|------------------|---------------|---------------|----------------|
| 40 kg/h | 4.5 kW | 2.9 kW (1.5) | 3.2 kW (1.6) | 3.4 kW (1.7) |
| 80 kg/h | 9.0 kW | 5.8 kW (3.1) | 6.4 kW (3.3) | 6.8 kW (3.5) |
| 120 kg/h | 13.5 kW | 8.7 kW (4.6) | 9.6 kW (4.9) | 10.2 kW (5.2) |
| 160 kg/h | 18.0 kW | 11.6 kW (6.1) | 12.8 kW (6.6) | 13.6 kW (7.0) |
| 200 kg/h | 22.5 kW | 14.5 kW (7.6) | 16.0 kW (8.2) | 17.0 kW (8.7) |
| 240 kg/h | 27.0 kW | 17.4 kW (9.2) | 19.2 kW (9.9) | 20.4 kW (10.5) |

The perfect match!

Different system situations require customized solutions. With a range of Condair GS variants to choose from, you can select a unit that precisely matches your planning requirements and the design of your HVAC system.

Existing limitations are overcome through the exhaust gas discharge system, and highly efficient steam humidification is made available for a wide range of applications.



Condair GS
Indoor installation (room air-dependent)
Combustion air is drawn in from the room where the unit is installed



Condair GS RS
Indoor installation (room air-independent)
Combustion air is drawn in from outside



Condair GS OC
External installation with robust all-weather protection cover

Standard version

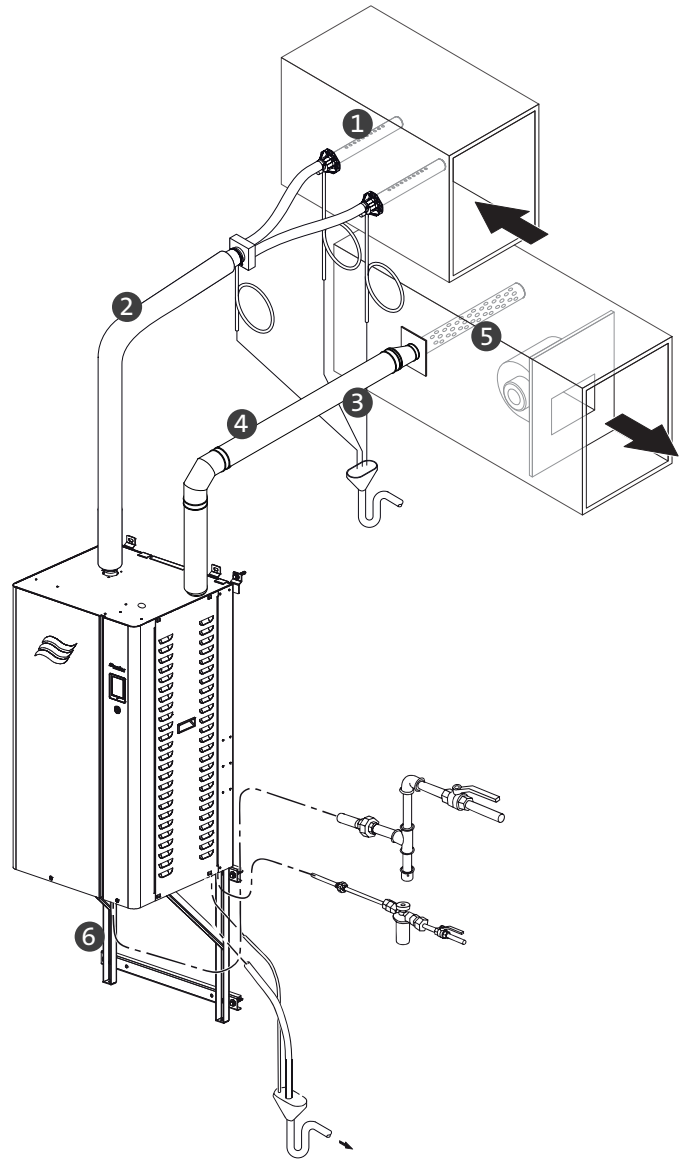
- Stainless steel steam cylinder
- Internal PI humidity controller
- Remote signaling of operational readiness / operating mode / maintenance / faults
- Analog signal for current steam production
- Control panel with LCD display
- Self-diagnosis system

Accessories

- Steam distributor for duct [1]
- Steam distribution hose [2]
- Condensate hose [3]
- DVGW-certified exhaust gas installation [4]
- Exhaust gas distributor [5]
- Base frame [6]

Options

- CS version with high-efficiency auxiliary heat exchanger
- OptiSorp multiple steam distribution system
- Humidity sensor for duct/room installation
- Duct/room hygrostat
- Pressure relief valve set (up to 10,000 Pa pressure relief)
- Connection to BMS with e-links (e.g. for Modbus, BACnet/IP and LonWorks)



Technical Data

| GS and GS CS models | | GS 23 | GS 45 | GS 65 | GS 90 | GS 130 | GS 195 | GS 260 |
|---------------------------------|------|---|------------|-------------|-------------|------------|---------------|------------|
| Steam output | kW/h | 23 | 45 | 65 | 90 | 130 | 195 | 260 |
| Exhaust air — negative pressure | Pa | -300 – -1,200 and -400 – -1,500 (other ranges available by request) | | | | | | |
| Control voltage | | 230 V/1 PH/50–60 Hz | | | | | | |
| Max/Min input (GS models) | kW | 20.5 / 4.1 | 41 / 8.2 | 61.5 / 12.3 | 82 / 8.2 | 123 / 12.3 | 184.5 / 12.3 | 246 / 12.3 |
| Max/Min input (GS CS models) | kW | 18.2 / 3.6 | 36.4 / 7.3 | 54.5 / 10.9 | 72.7 / 7.3 | 109 / 10.9 | 163.5 / 10.9 | 218 / 10.9 |
| Width/height | mm | 600 x 1,110 | | 710 x 1,410 | 960 x 1,410 | | 1,590 x 1,410 | |
| Depth | mm | 540 | 540 | 710 | 710 | 710 | 710 | 710 |

| GS-OC model (outdoor installation) | | GS 40 | GS 80 | 120 | 160 | 200 | 240 |
|------------------------------------|------|---------------|-------|-------|-------|-------|-------|
| Steam output | kW/h | 40 | 80 | 120 | 160 | 200 | 240 |
| Width/height | mm | 1,262/1,380 | | | | | |
| Depth | mm | 545 | 708 | 1,104 | 1,104 | 1,500 | 1,500 |
| Compliance | | DVGW, CE, VDE | | | | | |