



06/2008

TOP

Unit heaters with
galvanised steel
heat exchangers



TOP Unit heaters

– reliable and durable for industrial premises

TOP unit heaters reliably provide a supply of fresh air and warm air in industrial premises.

They are fitted with high-capacity fans, which are capable of penetrating through temperature layers, even from a great height, and provide a comfortably warm environment in industrial premises.

Due to zonal-controlled operation, no energy is lost, resulting in lower operating costs. Either mounted on the wall or ceiling, the key strength of TOP unit heaters lies in the fact that they provide heat where the air is heavy with dust or even oil from open machinery. In their most durable design with steel heat exchangers, they are even able to withstand intensive cleaning.

The units can be extended, in terms of their function, with a wide range of accessories. There are also crossflow steel heat exchangers available for use with LPWW temperature spreads. Heat exchangers for use with steam are also available.



Wall-mounted, suspended from wall brackets, complete with outlet louvre

Ceiling-mounted with KaMAX diffuser: ceiling-mounted on universal 2-point T-brackets with a 4-way diffuser



Galvanised steel heat exchanger

– for use in areas with contaminated air

Kampmann TOP unit heaters have the right design of heat exchanger for every application.

In areas with normal air quality, unit heaters with cheaper copper/aluminium heat exchangers are usually installed. However, in areas where there are heavier demands on the service life of a unit, often galvanised steel heat exchangers meet the mark.

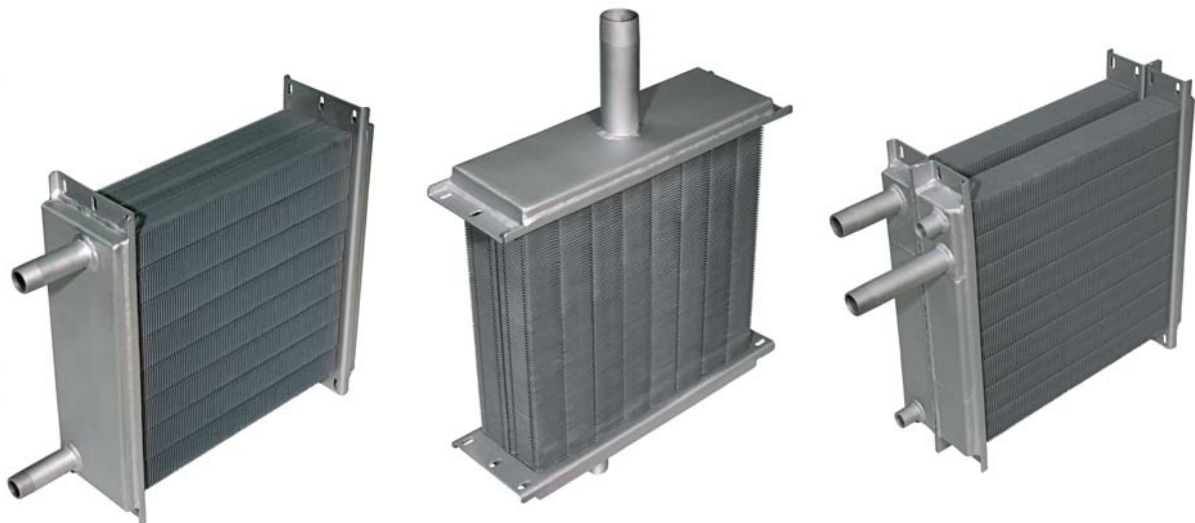
Areas with extreme requirements include, for example,

- areas in which the air is contaminated with corrosive gases or dust,
- areas in which the heat exchanger needs to be cleaned regularly, e. g. in areas in which welding or sanding work is done,
- areas in which serious cleaning, possibly with high-pressure cleaning units or mechanical cleaning is required,
- buildings with exacting standards in terms of hygiene.

Galvanised steel heat exchangers
Galvanised steel, LPHW/LPWW up to 120 °C, 16 bar: Air volume: 910 - 8770 m ³ /h Heat output (LPHW 75/65 °C, t _{L1} = 20 °C): 10.1 - 50.4 kW
Galvanised steel for steam up to 200 °C, 12 bar: Air volume: 1100 - 8770 m ³ /h Heat output (0.1 bar saturated steam, t _{L1} = 20 °C): 17.3 - 80.4 kW
Galvanised steel, crossflow, LPHW/LPHW up to 120 °C, 16 bar: Air volume: 910 - 8770 m ³ /h Heat output (LPHW 80/40 °C, t _{L1} = 20 °C): 7.9 - 47.0 kW
Correction factor for 82/71/20 °C = 1.14



Galvanised steel heat exchanger Steel heat exchanger, for use with steam Galvanised steel crossflow heat exchanger



TOP Unit heater accessories

– design-led range of accessories

With TOP unit heaters there is the right accessory for every application.

With the extensive range of modular accessories, the units can easily be adapted to meet every technical requirement, as well as every layout requirement. Kampmann can also supply:

- wall brackets
- ceiling brackets for different types of ceiling
- connection accessories
- outlet-side accessories, such as louvres, diffusers and outlet nozzles
- KaMAX diffuser for variable discharge depths
- extensive mixed air accessories, such as filters and mixing boxes, ductwork, sailcloth spigots and louvres
- roof opening sections for flat and angled roofs
- rain hoods
- extensive range of switches and controllers for recirculating and mixed air units
- controls accessories, also for use with frost protection and explosion-proof motors

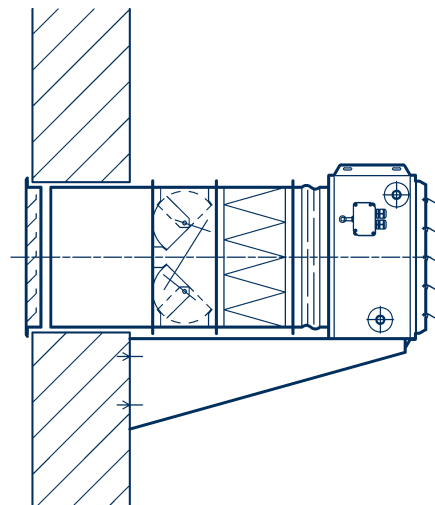
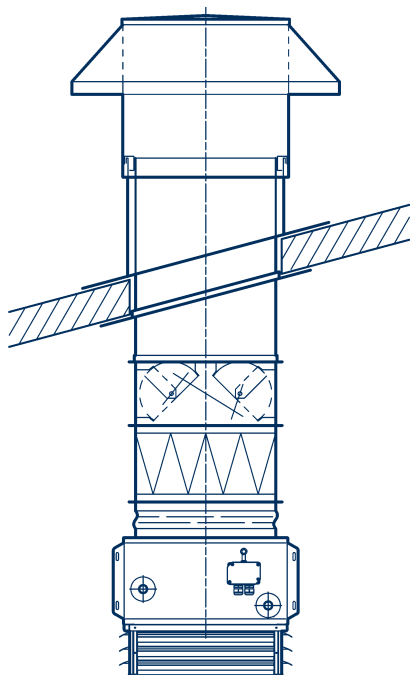
On request, TOP unit heaters are also available with F7 filters in compliance with VDI 6022!



Ceiling-mounted, mixed air with KaMAX

Ceiling-mounted, mixed air

Wall-mounted, mixed air



Agrar TOP Unit heaters

– especially easy to clean, when regular cleaning is necessary

Frequent cleaning in areas with contaminated air is now no longer a problem with Agrar Top unit heaters.

As well as cleaning with high-pressure cleaning units or compressed air, Agrar TOP unit heaters can also be simply and easily cleaned by reversing the fan direction. Simply at the press of a button, dirt and dust are blown off in the opposite direction to the normal heating fan direction.

The air outlet and rear panel of the fan unit can be simply raised to clean the heat exchanger more thoroughly. This makes the heat exchanger fully accessible.

Kampmann Agrar TOP unit heaters fitted in agricultural buildings with biogas equipment also have an additional benefit: any waste heat produced can be directly re-used in compliance with the Renewable Energy Act.



Agrar TOP unit heater ceiling-mounted with 4-way diffuser

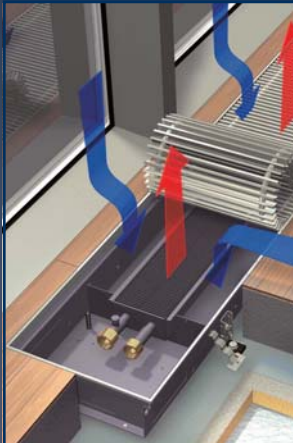
Agrar TOP unit heater wall-mounted



The heat exchanger is cleaned with a high-pressure cleaning unit or by reversing the fan direction

Building Services and Air Conditioning

Systems for Heating · Cooling · Ventilating

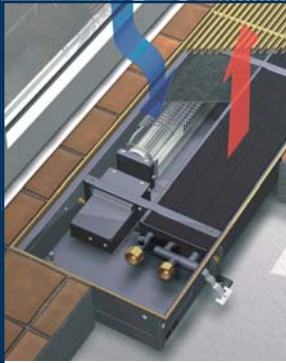


Katherm HK

Heating or cooling with crossflow fans

The floor duct provides high heating and cooling outputs throughout the entire room at a low sound pressure level. A separating air stream prevents the inlet and outlet air mixing.

Heat output¹⁾: 1327 – 8130 w
Cooling output²⁾: 373 – 1622 w



Kavent BA plus

Decentralised facade ventilation

Intelligent systems with direct fresh air entry through the external wall. Unique use: ventilate as little as possible but as well as possible.

Heat output¹⁾: 860 – 2800 w
Cooling output²⁾: 210 – 635 w



Katherm NK

Floor duct heating with natural convection

Only 92 to 200 mm deep, the ready-to-install heating duct is ideal for installation in screeded and raised floors.

Heat output¹⁾: 125 - 3509 w



Katherm QK

Floor duct heating with crossflow fan-assisted convection

The exceptionally quiet-operating crossflow fans, positioned along the entire length of the unit, guarantee high heat outputs, even at low fan speeds and at low sound levels.

Heat output¹⁾: 809 – 5349 w

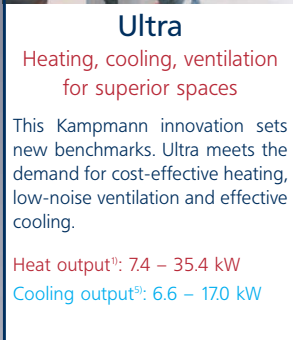


Door air curtains

The invisible curtain of heat

Door air curtains create a comfortable inside environment even when the doors are open. They can be installed above or at the side of the doorway. Three designs (horizontal, vertical, standing) are available – also without heat exchanger for cold rooms.

Heat output²⁾: 10.2 – 41.6 kW



Ultra

Heating, cooling, ventilation for superior spaces

This Kampmann innovation sets new benchmarks. Ultra meets the demand for cost-effective heating, low-noise ventilation and effective cooling.

Heat output¹⁾: 7.4 – 35.4 kW
Cooling output²⁾: 6.6 – 17.0 kW

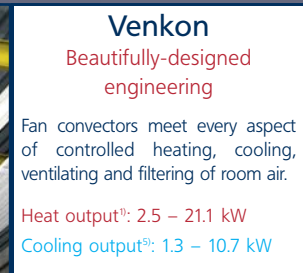


GALAXIS

Radiant panels – heating like the sun

GALAXIS radiant panels provide comfortable heat in large spaces of all types, such as sports halls and riding arenas. GALAXIS provides a positive floor-ceiling temperature profile.

Heat output¹⁾: 261 – 645 w/m

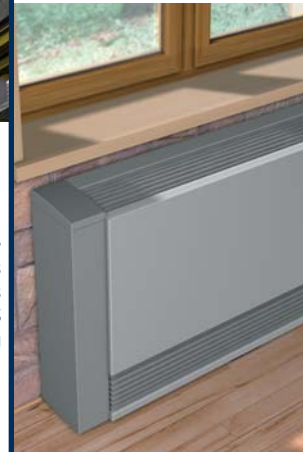


Venkon

Beautifully-designed engineering

Fan convectors meet every aspect of controlled heating, cooling, ventilating and filtering of room air.

Heat output¹⁾: 2.5 – 21.1 kW
Cooling output²⁾: 1.3 – 10.7 kW



¹⁾ Heat output at LPHW 75/65 °C, t_l = 20 °C

²⁾ Heat output at LPHW 75/65 °C, t_l = 20 °C, at max. fan speed

³⁾ Heat output at LPHW 75/65 °C, t_l = 20 °C, at medium fan speed 3

⁴⁾ Cooling output at LPCW 16/18 °C, t_l = 27 °C, rel. humid. = 50 %, at medium fan speed 3

⁵⁾ Cooling output at LPCW 6/12 °C, t_l = 28 °C, rel. humid. = 50 %

⁶⁾ Medium excess temperature +t = 55 K; per m of panel

⁷⁾ Heat output at LPHW 75/65 °C, t_{inside} = 22 °C,

t_{outside} = 12 °C

⁸⁾ Cooling output at LPCW 17/19 °C, t_{inside} = 26 °C, t_{outside} = 32 °C, rel. humidity = 40 %

KAMPMANN

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