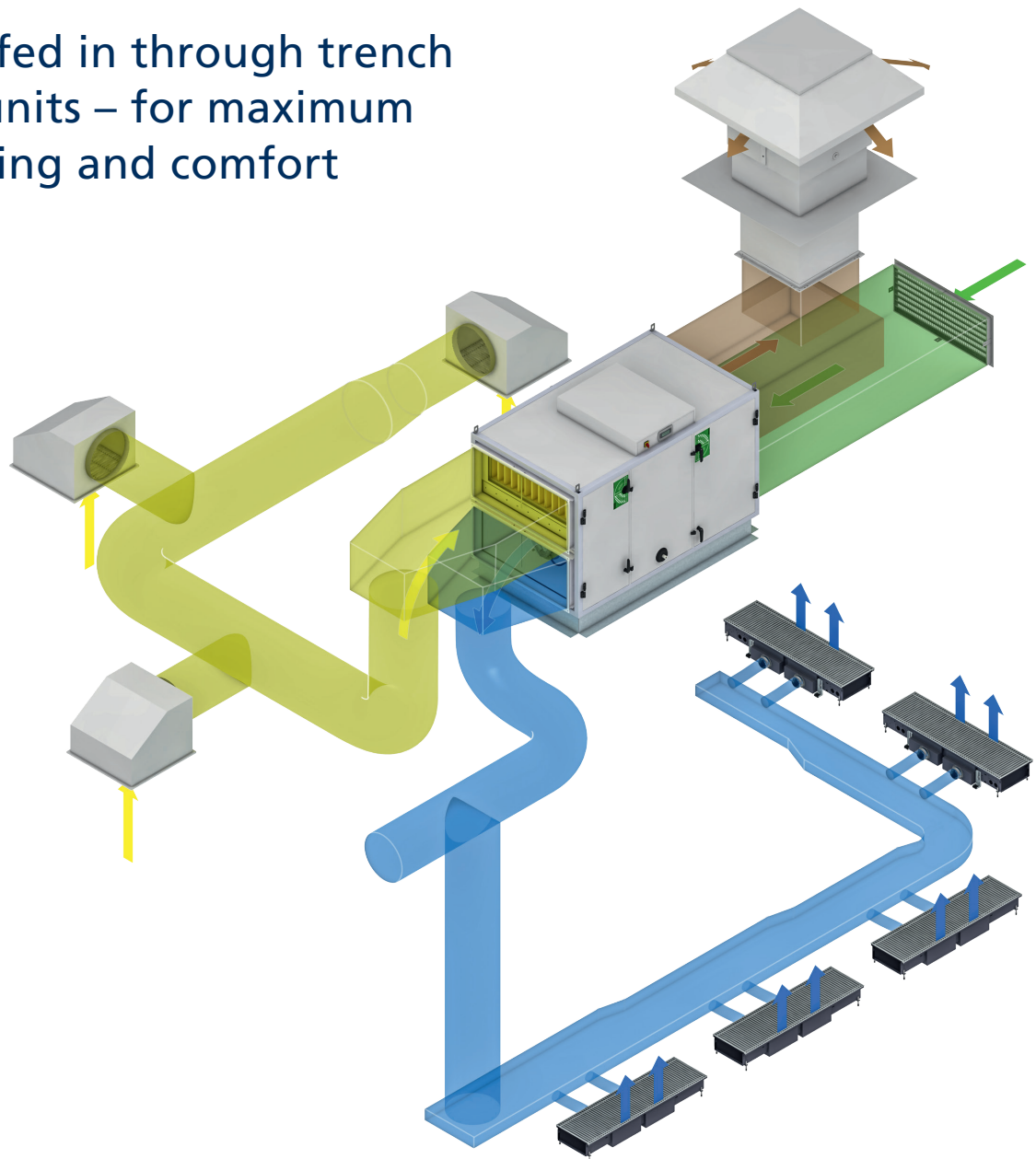


Supply air versions

of Katherm
trench heating units

Fresh air fed in through trench heating units – for maximum space saving and comfort



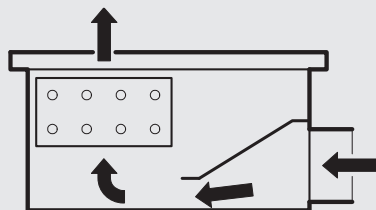
Almost all **Katherm trench heating units** can be fitted with a **supply air function** for specific projects. Primary air, pre-conditioned by a central ventilation unit, can be introduced into a room through various supply air spigots, perfectly combining heating, cooling and a supply of fresh air. The space requirement is thus minimised and comfort in the building maximised.

Supply air versions

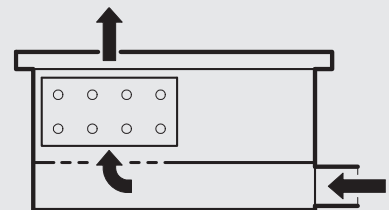
of Katherm trench heating units

Katherm NK with natural convection and increased output through convection with conditioned supply air

With lateral supply air spigots

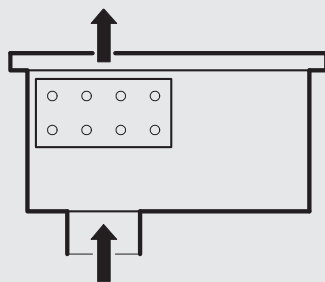


With air guidance through the convector

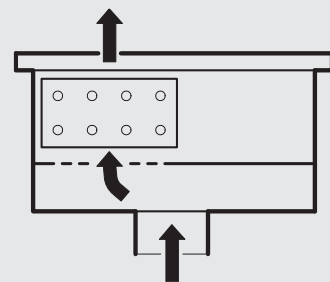


With air guidance through the convector and perforated plate underneath the convector

With supply air spigot from below

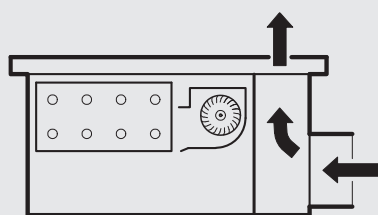


With air guidance through the convector

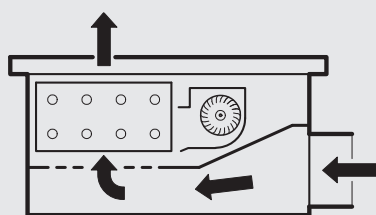


With air guidance through the convector and perforated plate underneath the convector

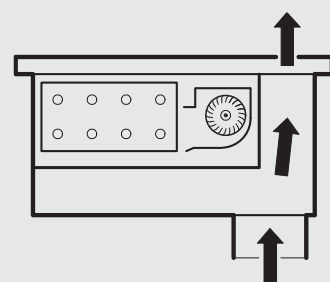
Katherm QK with fan-assisted convection and supply of fresh air



With air guidance through a separate discharge duct

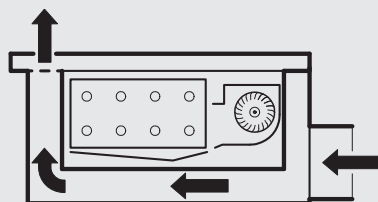


With air guidance through the convector and perforated plate underneath the convector



With air guidance through a separate discharge duct

Katherm HK for heating and cooling with fresh air supply separate from the air flow from the fan *

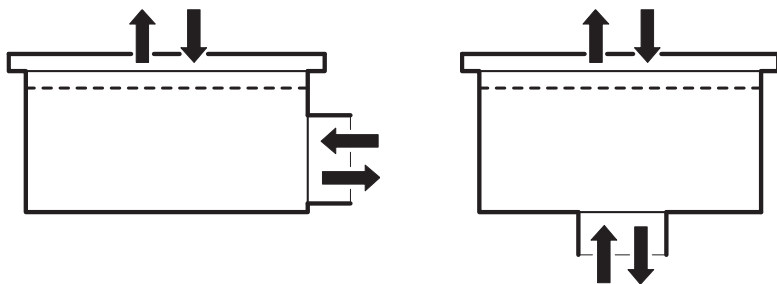


With air guidance through separate supply air modules

* Guarantees no adverse impact on output or condensation

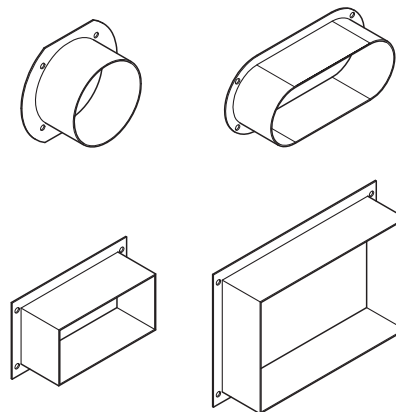
The required trench dimensions are not feasible? They are!

Across all trench versions, empty trenches with supply air spigots can be integrated into other trench models to introduce supply air. Alternatively, these trenches can also be used as pure exhaust air trenches.



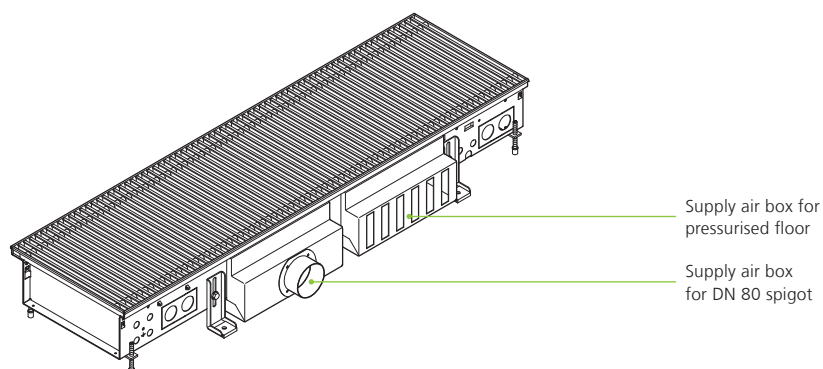
Supply air spigot options

Dimensions	Max. air volume / spigot [m³/h]
DN 60	31
DN 70	42
DN 80	55
DN 100	85
DN 125	133
DN 150	191
51 x 128 oval	65
50 x 100 rectangular	54
100 x 150 rectangular	162



(other spigots on request)

Alternatively, supply air can also be fed to the spigot through a pressurised floor.



The drawing shows a Katherm HK with supply air box for spigots and pressurised floor (by way of example).

Don't overlook comfort!

Comfort also plays a key role in air conditioning. When designing a project with Kampmann trench heating units, we'll help you to consider and comply with current directives such as EN 15251 (in future EN 16798 part 1 and 2) as well as EN ISO 7730. In principle, the following recommended values can be adopted:



For heating:

Outlet temperature: 21-26 °C

(but not lower than room temperature)

Outlet speed: < 1,5 m/s

Distance of supply air trench to the workplace: > 0,5m



For cooling:

Outlet temperature: 16-22 °C

Outlet speed: < 1,2m/s

Distance of supply air trench to the workplace: > 1m

Further parameters

Relative humidity and degree of turbulence are two other aspects that need to be considered. Generally, a reduction in outlet temperature, increased air speed and increased relative humidity have an adverse effect on comfort. A rough analysis of comfort, taking into account conditions on site, can be provided on request.

Additional information:

- > The supply air models can be used for cooling, heating or simply for air exchange using preconditioned primary air.
- > Every supply air trench is a tailor-made solution, designed individually for each specific project.
- > A spigot connection at the end is also possible with appropriate trench dimensions and sufficient space in the air outlet area (examination on request).
- > If in line with the design, sliders can also be integrated in the supply air spigots used, which serve to regulate the air volumes on site (examination on request).
- > The upper limit of the air volume in the spigot is calculated from the maximum air speed and should not exceed 3 m/s to avoid additional sound emissions.
- > The resulting air-side pressure losses vary depending on air volumes fed in and the air supply system used. The pressure losses are calculated individually for each per project.

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