

Trench convector

Katherm HK



## High-performance

Katherm HK is the solution when it comes to flexible performance. The three trench widths of the trench units produce high heating and cooling outputs.

## Innovative

The Katherm HK has been developed in the Kampmann Research & Development Center. With revised components, like the tangential fan, high-output coil and the modified design chassis, the new Katherm HK provides optimised air flow highest performance.



## Hygiene-compliant

Thanks to improved condensate drainage in cooling mode, coupled with the ease of cleaning of the condensate tray, the Katherm HK is totally hygienic!

## Energy-efficient

State-of-the-art EC tangential fans with low power consumption ensure energy-saving operation combined with low sound levels. The fixing system in the floor trench, perfected over many years, which also incorporates sound decoupling ensures that the unit can be quickly and easily removed for cleaning and maintenance.

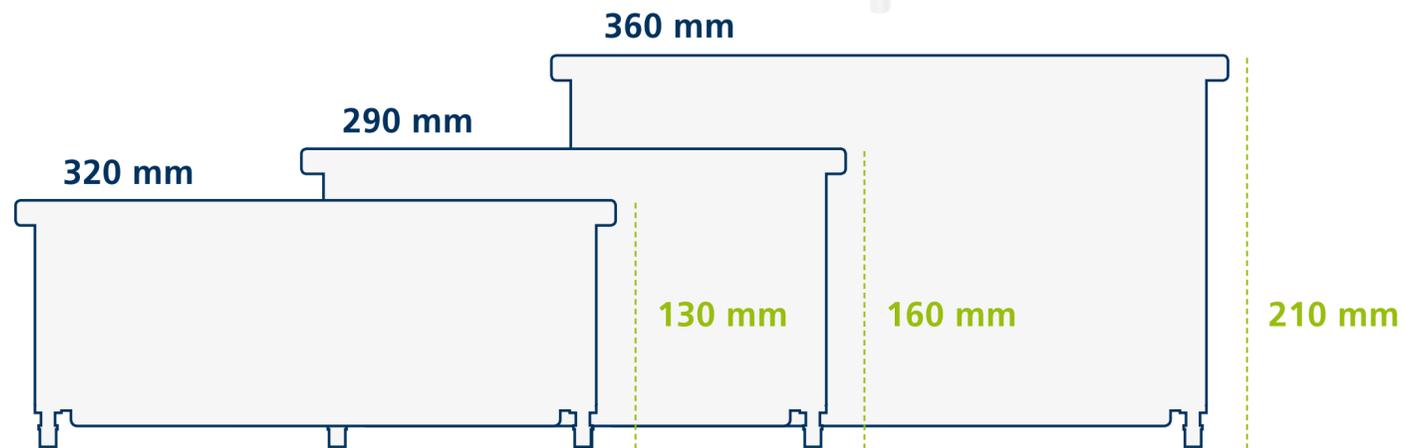
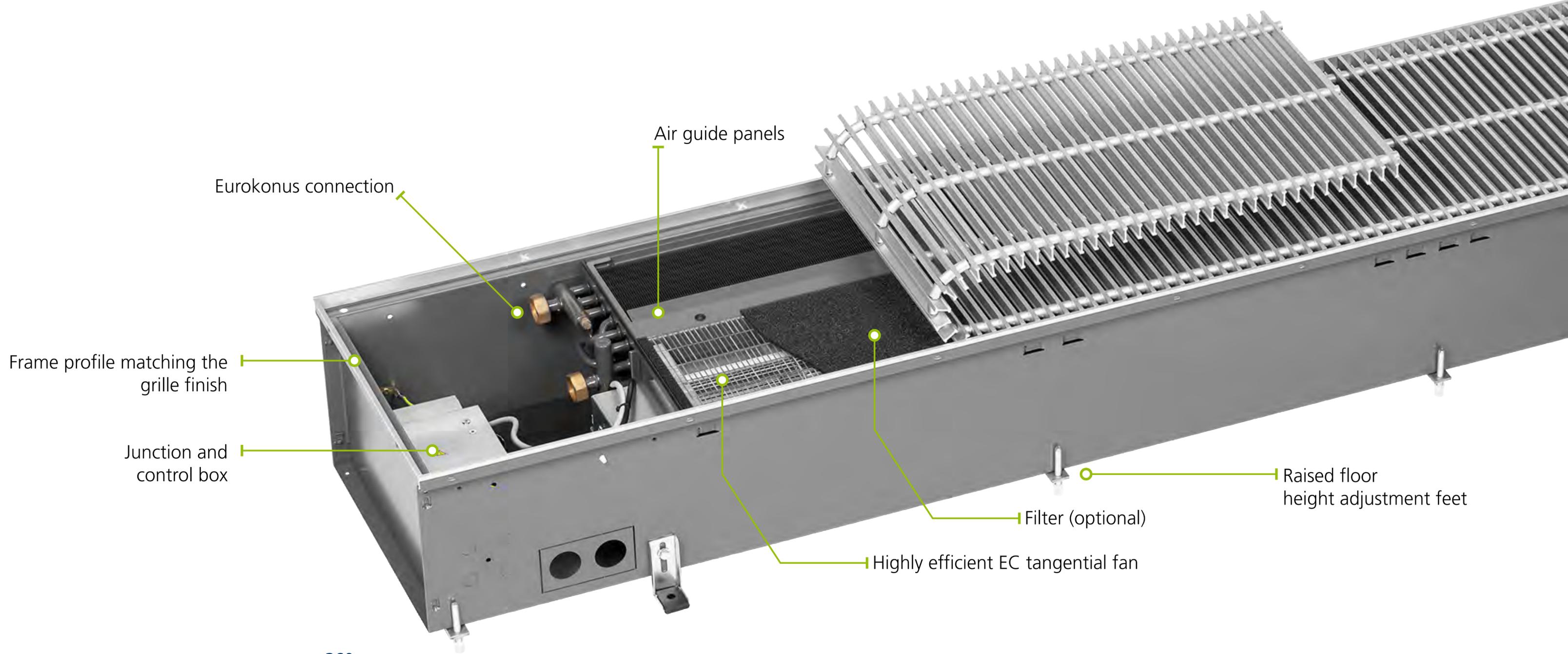


## Intelligent

Katherm HK trench units can be equipped with the KaControl intelligent room automation. This can be factory-fitted and can be used with KaControl networks or for building management systems, like KNX or Modbus, meeting the exacting requirements of state-of-the-art building automation systems.

## Air flow-optimised

The arrangement and air guidance have both been optimised on the Katherm HK and guarantee maximum comfort levels in all rooms. The unit is enhanced with air flow-optimised roll-up and linear grilles.

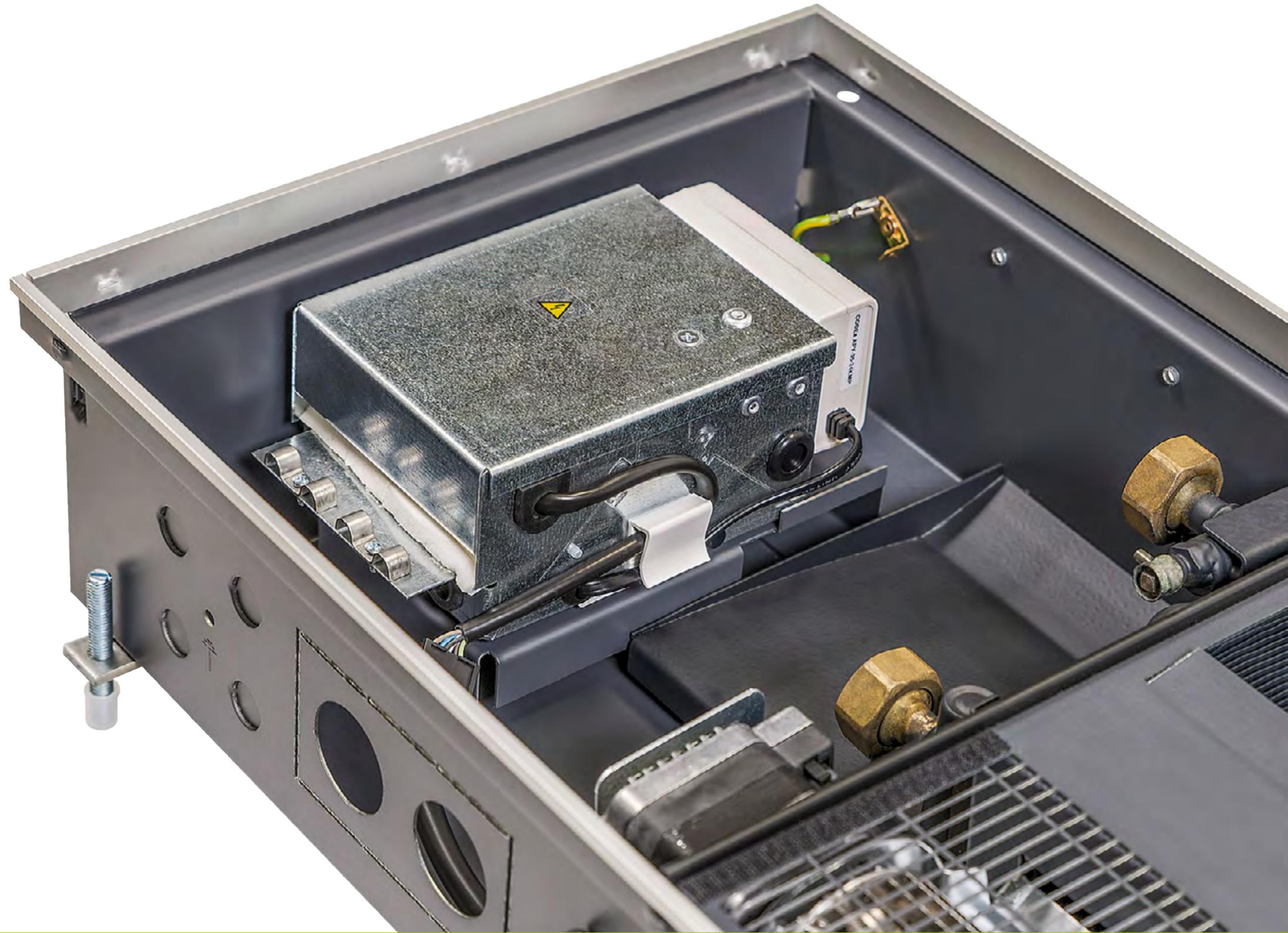


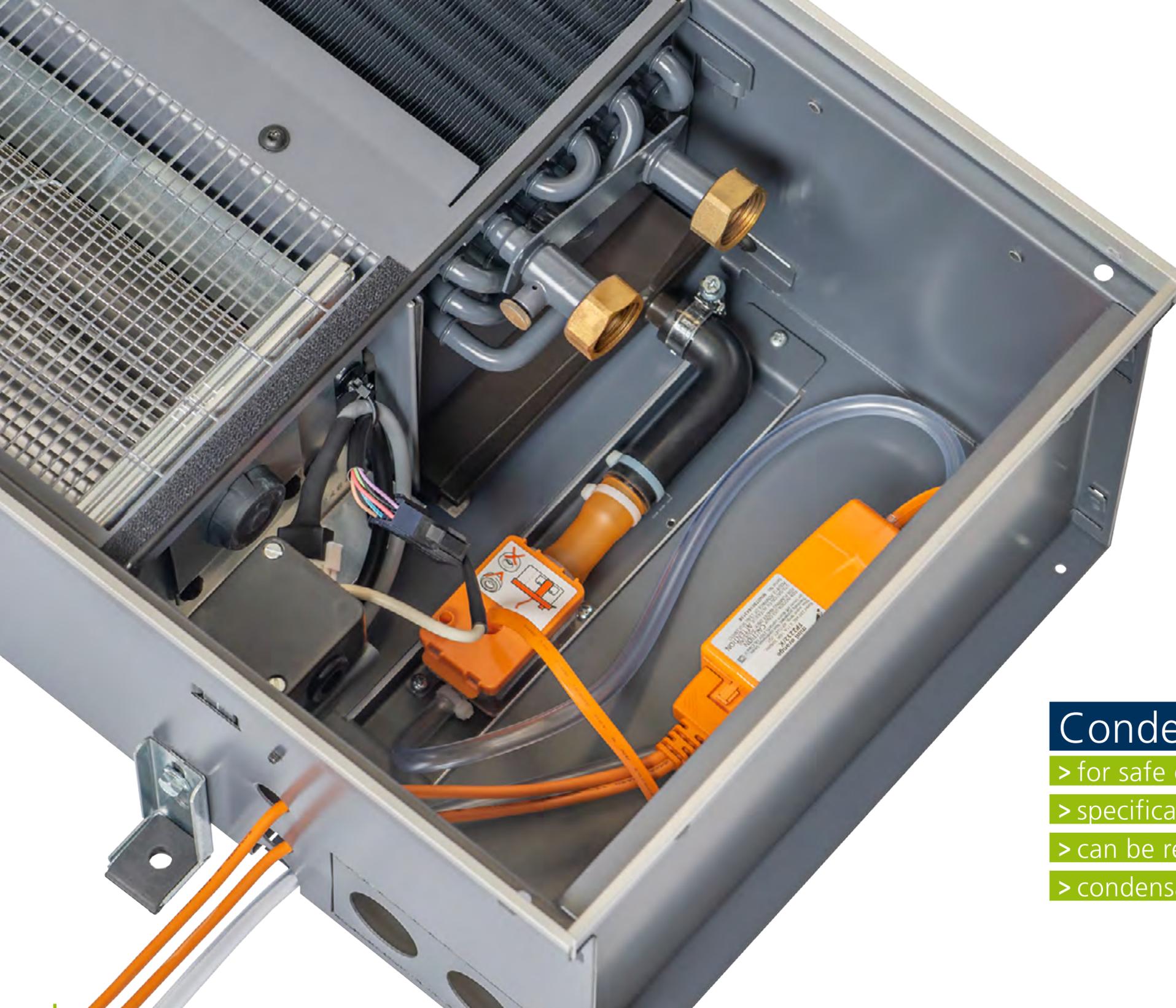
Katherm HK 360 at a glance

## Junction and control box

> control options: KaControl (-C1) or  
BMS-Interface/electromechanical (-00)

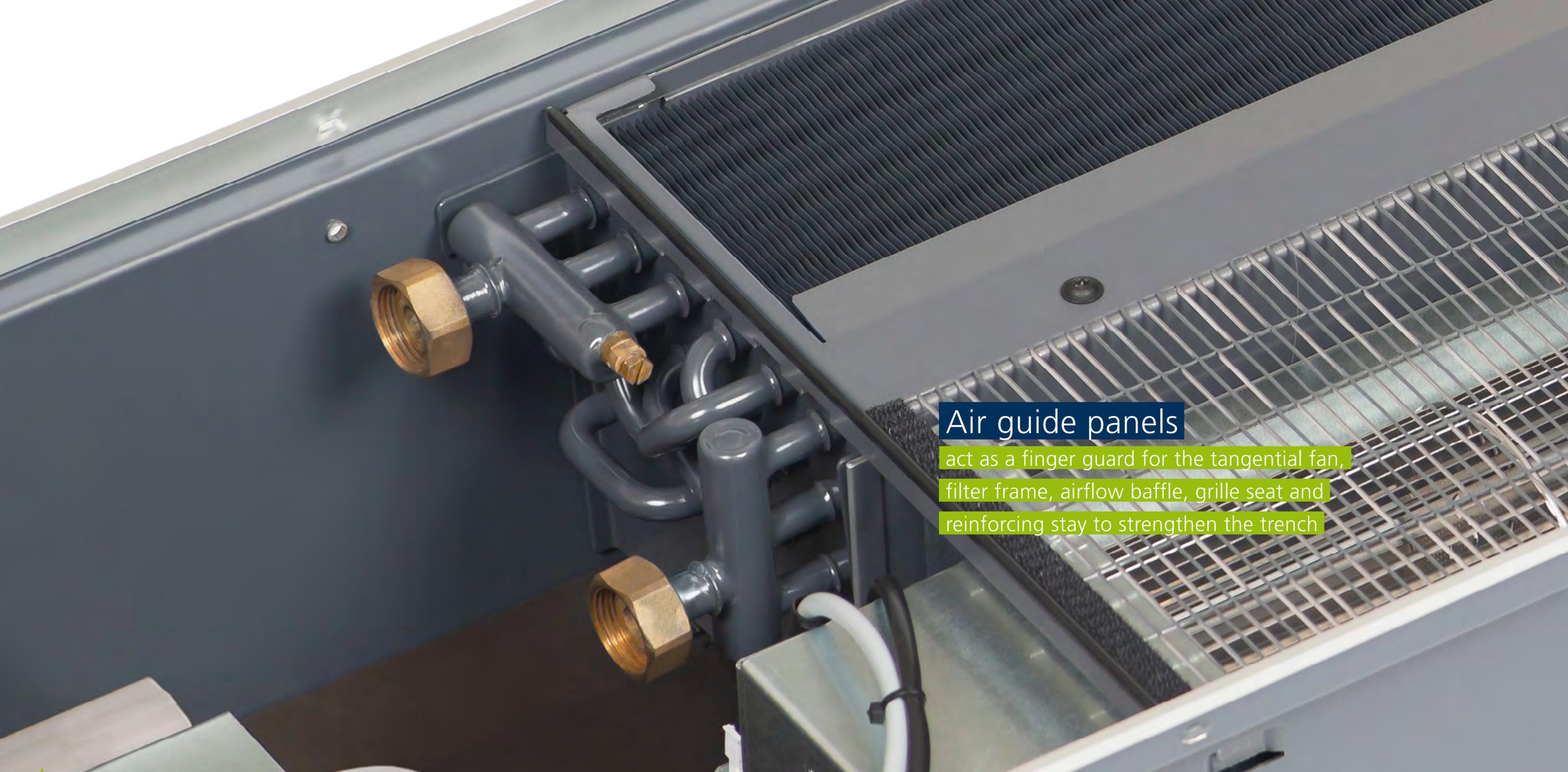
> incl. factory fitted transformer





## Condensate tray/pump

- > for safe discharge of the condensate and simultaneous air guidance
- > specifically designed for simple cleaning in line with the hygienic standards
- > can be removed to the room side for ease of cleaning
- > condensate pump (accessory) to drain condensate, if needed



## Air guide panels

act as a finger guard for the tangential fan, filter frame, airflow baffle, grille seat and reinforcing stay to strengthen the trench



## Highly efficient EC tangential fan

- > energy-saving, with flow-optimised impellers
- > easily removeable, plug & play fan
- > even air flow through convector
- > robust and whisper-quiet motor design
- > continuously variable control via external 0–10 V signal

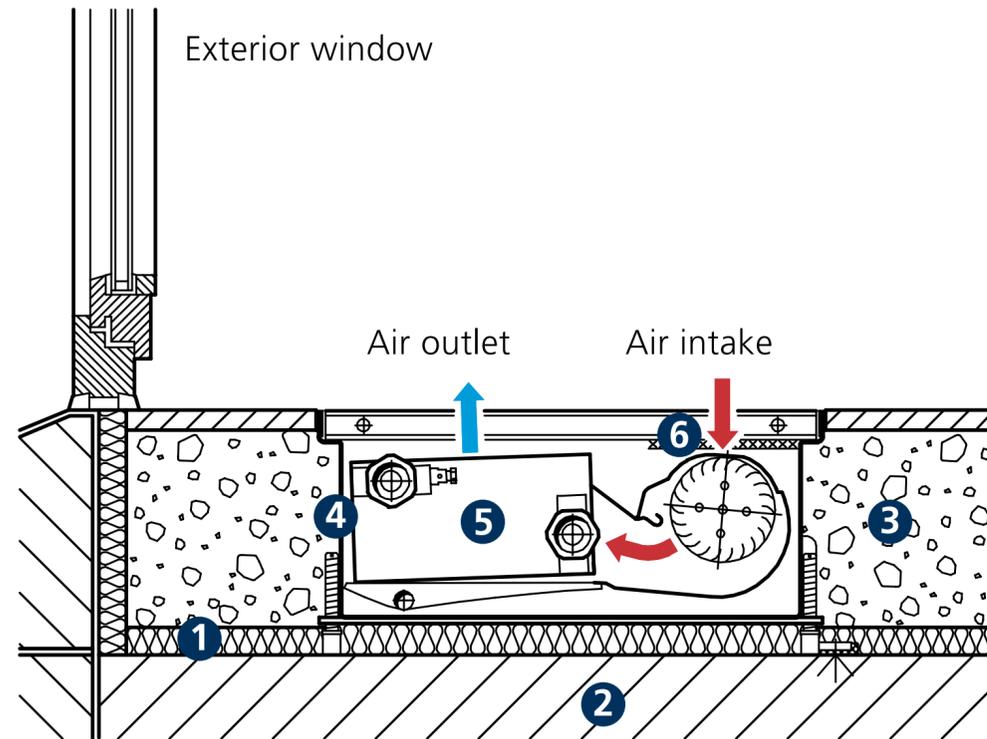


## Tangential fan fixing

- > easy removal of tangential fan without tool
- > novel coupling/cone pin system
- > simultaneous sound decoupling

### Example of cooling unit

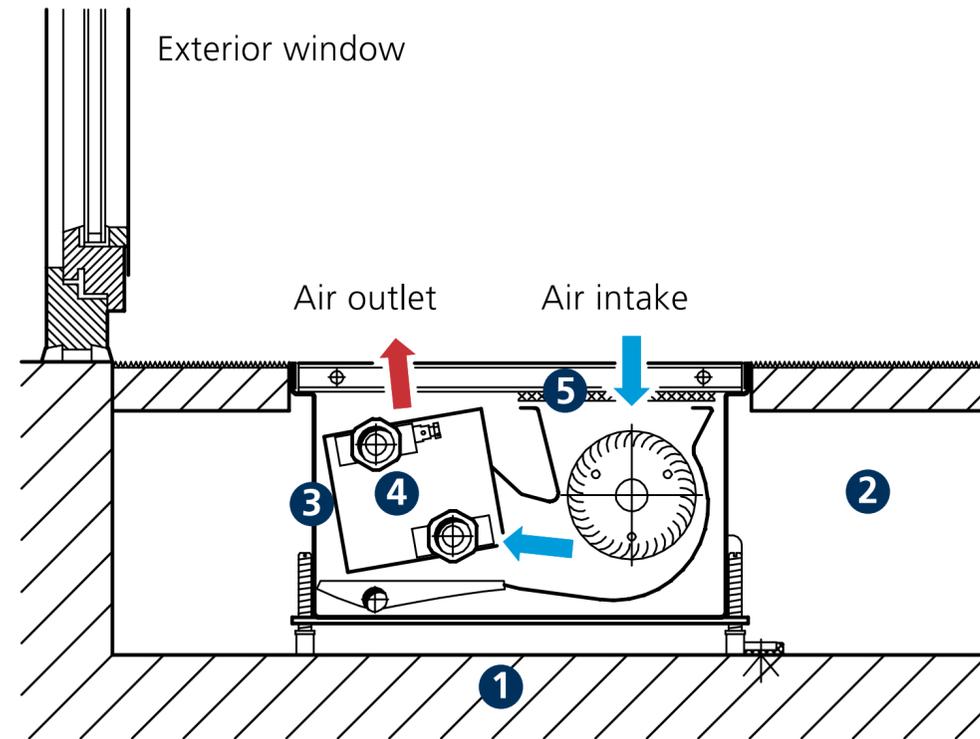
installed in screed, Katherm HK 320,  
trench height 130 mm



- 1 Heat and sound insulation
- 2 Concrete floor
- 3 Screed
- 4 Floor trench
- 5 High-output convector
- 6 Filter (optional)

### Example of heating unit

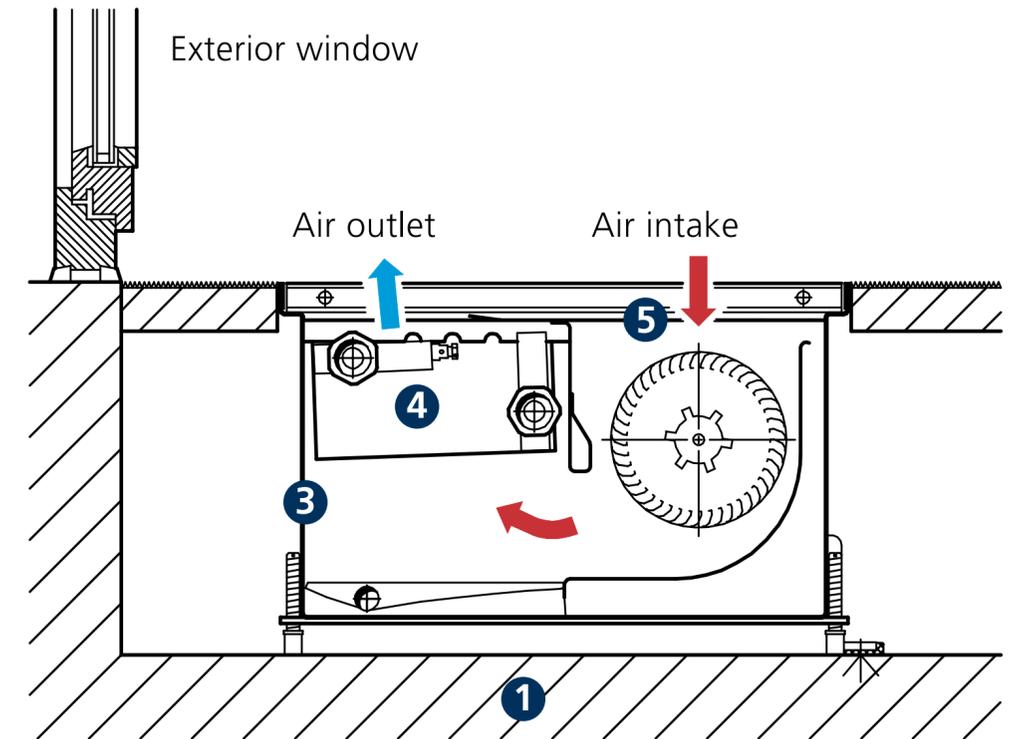
installed in a raised floor, Katherm HK 290,  
trench height 160 mm



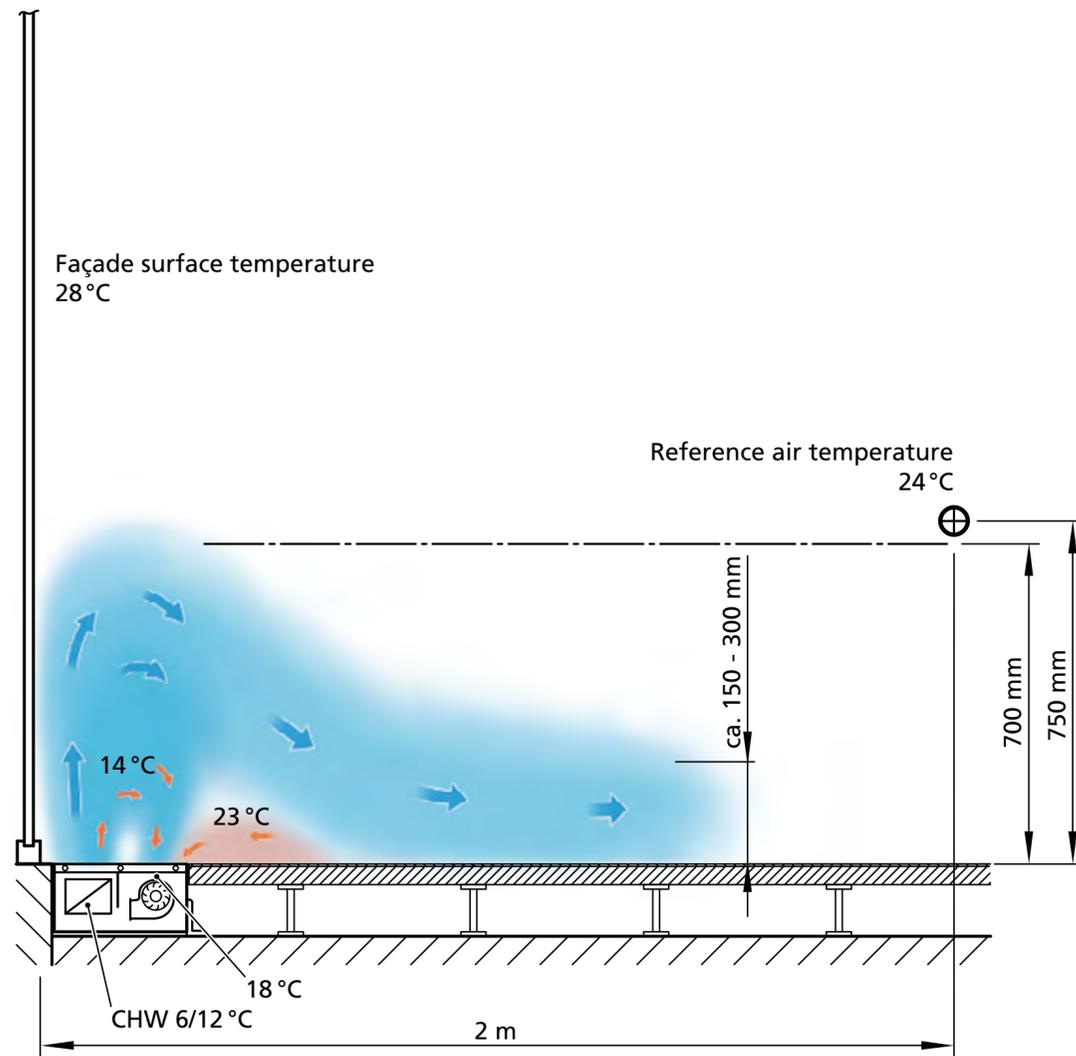
- 1 Concrete floor
- 2 False floor
- 3 Floor trench
- 4 High-output convector
- 5 Filter (optional)

### Example of cooling unit

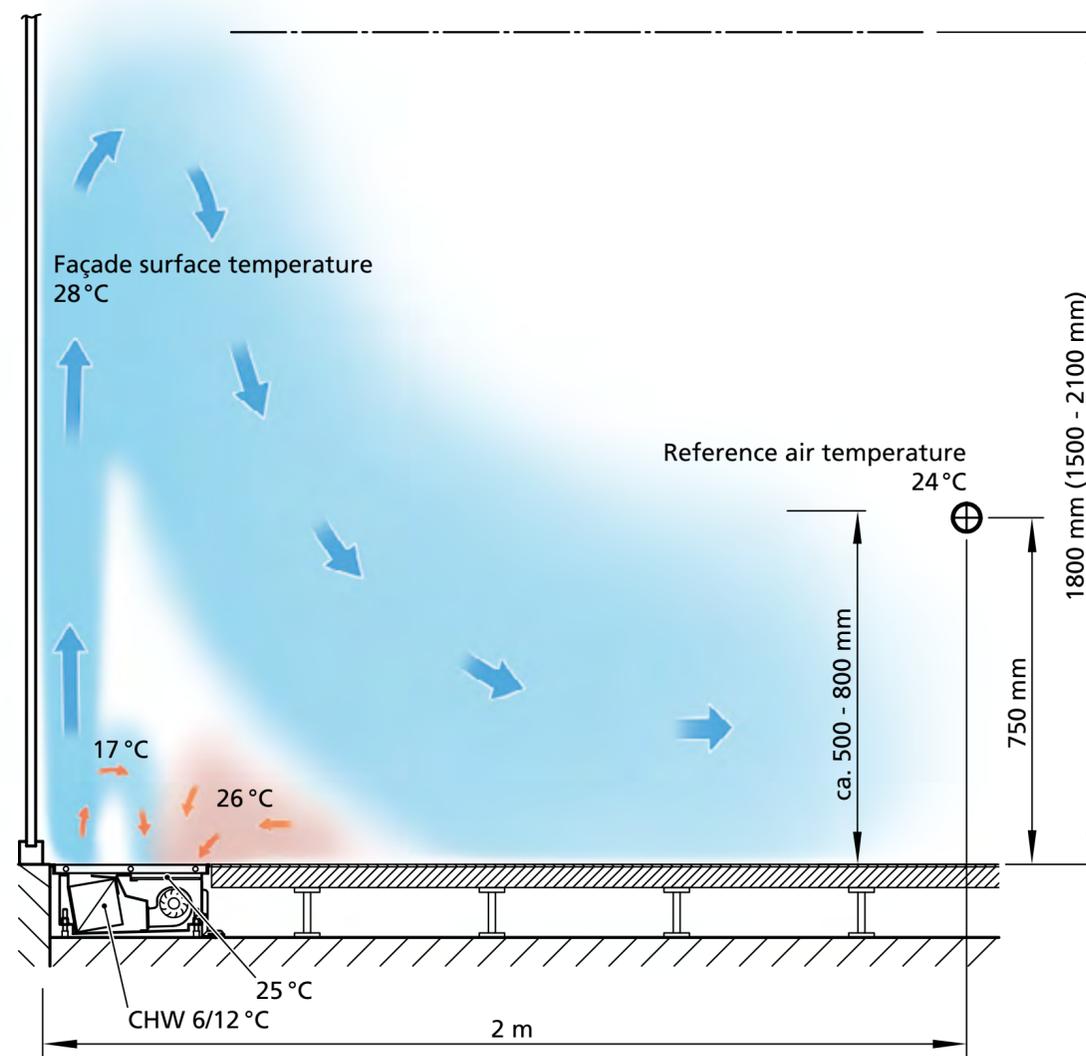
installed in a raised floor, Katherm HK 360,  
trench height 210 mm



- 1 Concrete floor
- 2 False floor
- 3 Floor trench
- 4 High-output convector
- 5 Filter (optional)



Non short-cut optimised air outlet



Katherm HK: Short-cut optimised air outlet

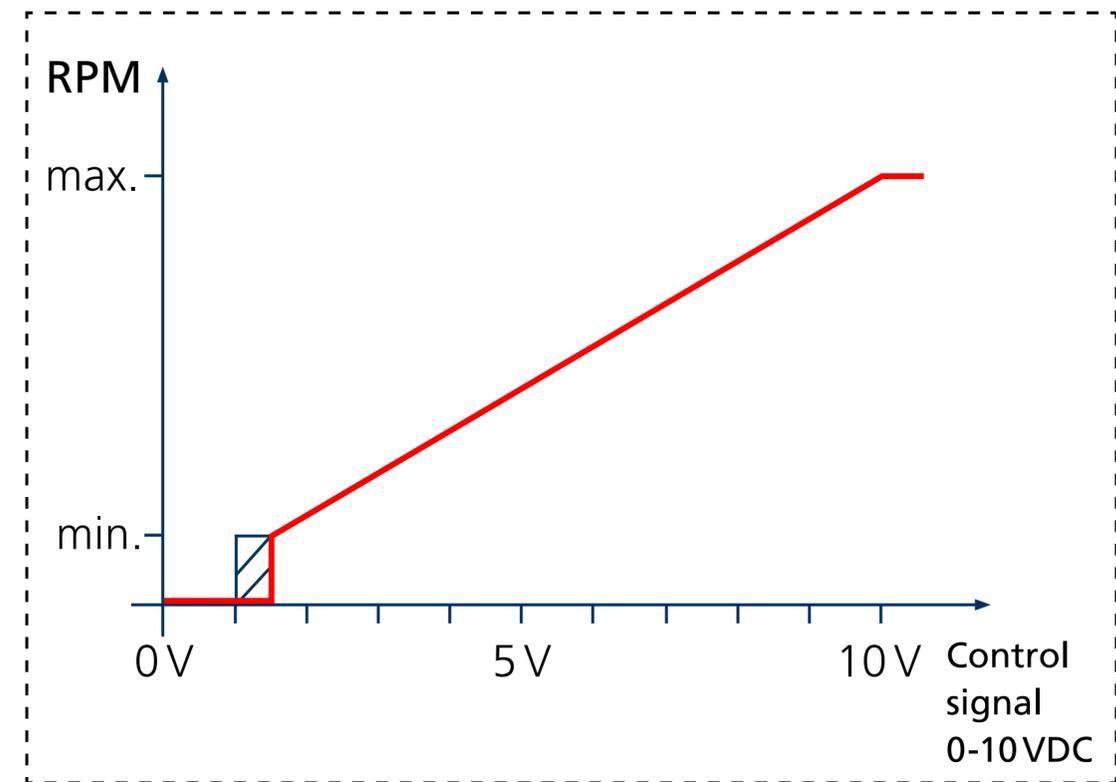
The diagram shows the air flow of short-cut optimised heating/cooling trenches in cooling mode.

With the short-cut optimised model the air at the façade rises significantly higher, blends and penetrates deeper into the room at a higher temperature. The result is a more even temperature distribution and higher comfort in the occupied zone.

The development and design of the Katherm HK have been optimised to minimise the short-cut as far as technically possible. All performance data refer to the reference air temperature measured at a distance of 2 m from the façade, 0.75 m above floor level.

## KaControl room automation

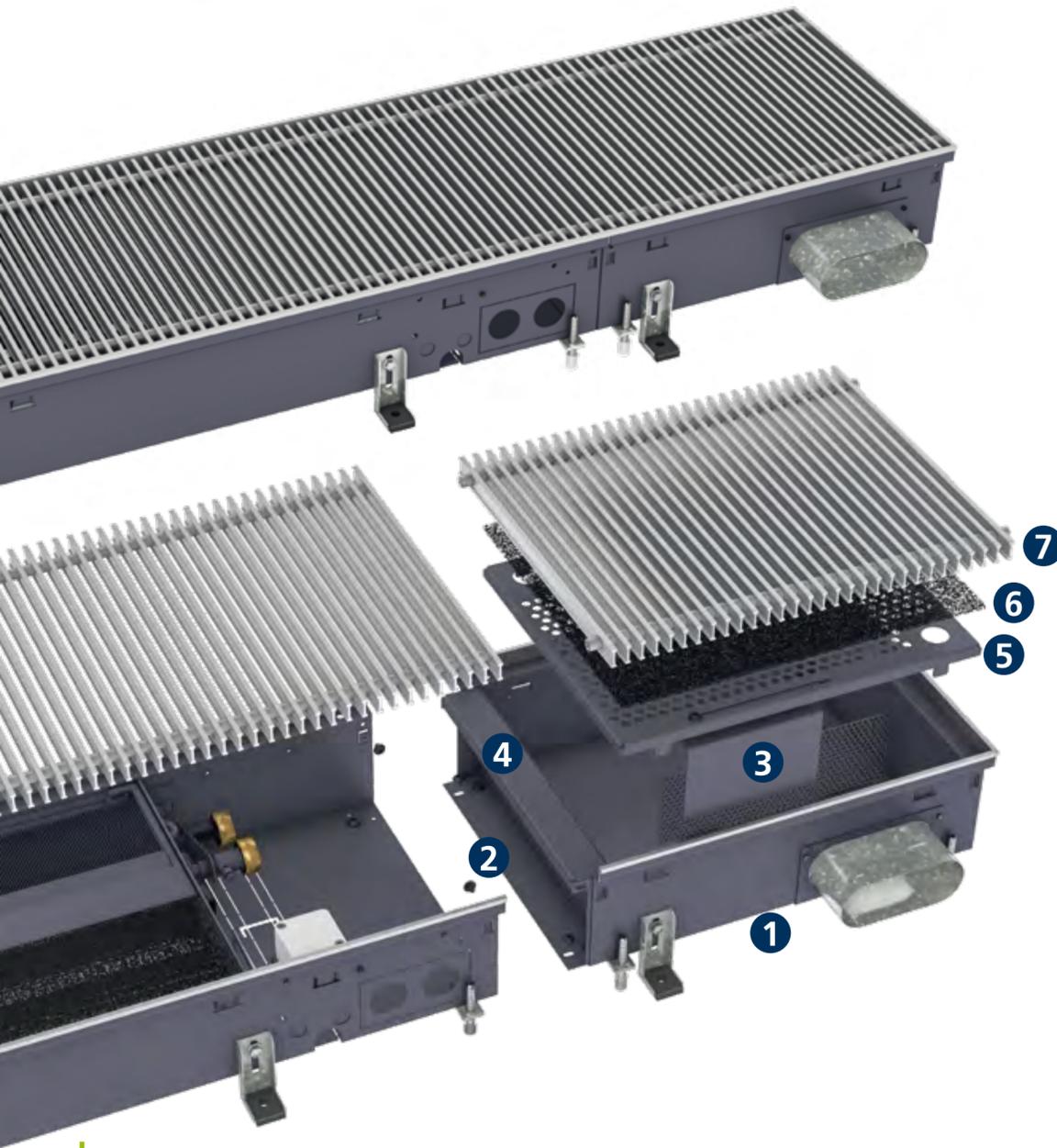
- > KaControl technology factory-integrated for setting up entire networked systems based on the KaControl
- > interfaces for KNX or Modbus building automation as an optional plug-in group
- > 0–10 V analogue input for control of fan and valve via a single data point
- > design room control unit with intuitive user navigation
- > integrated timer program



## BMS-Interface/electromechanical (-00)

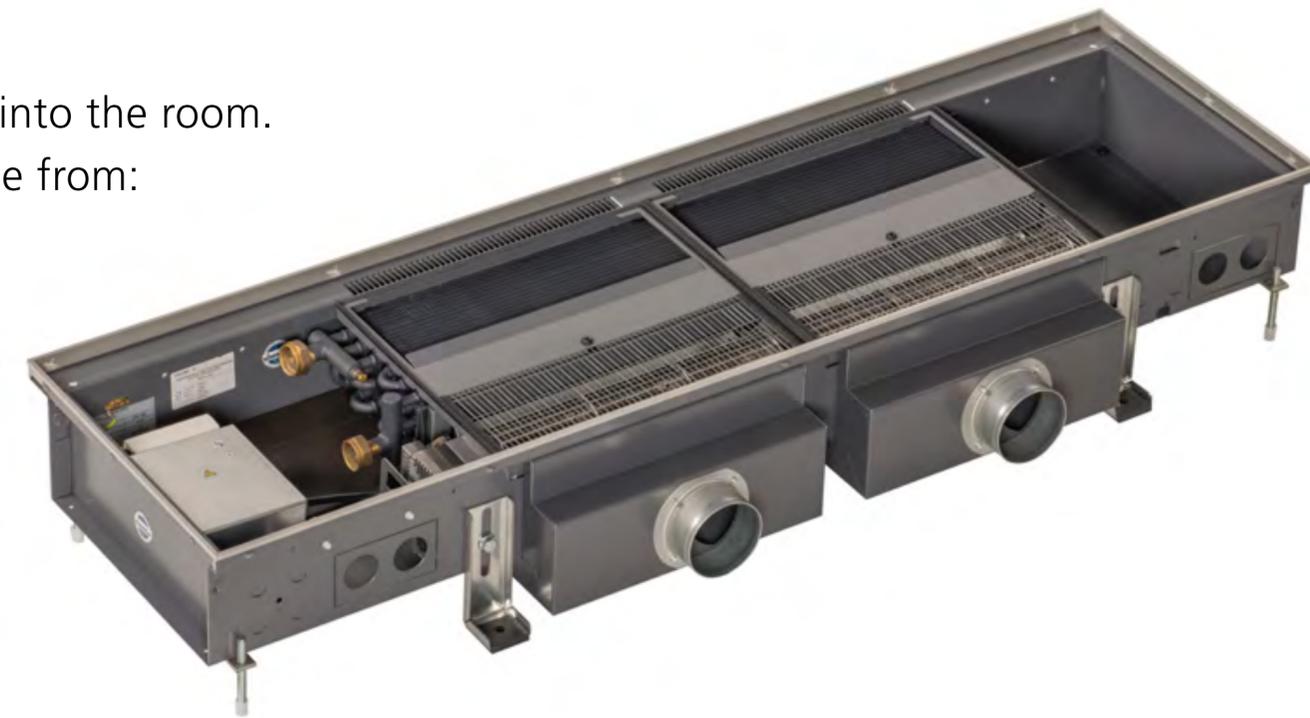
- > power supply: 230 V/50 Hz via factory fitted transformer
- > fan speed control 0–100 % via 0–10 VDC BMS contact
- > valve control, direct by BMS

Katherm HK with supply air function are excellently suited for for introducing primary air (fresh air) into the room. Heating, cooling and air supply are optimally combined in this way. There are two versions to choose from: Primary air supply via supply air modules or through supply air ducts.



### Supply air ducts ZL

- ① Supply air duct with supply air spigot
- ② Connection console
- ③ Supply air damper
- ④ Bracing cross member
- ⑤ Perforated sheet
- ⑥ Filter (optional)
- ⑦ Ex. Optiline Roll-Up Grille



### Combination Katherm HK with supply air module\*

- > Underfloor duct with modules
- > Primary air volume flow adjustable
- > max. 60 m<sup>3</sup>/h volume flow per "module"
- > Number of "modules" selectable depending on the duct length



Supply air function

\* Change unit dimensions:  
duct width + 20 mm, duct height + 35 mm

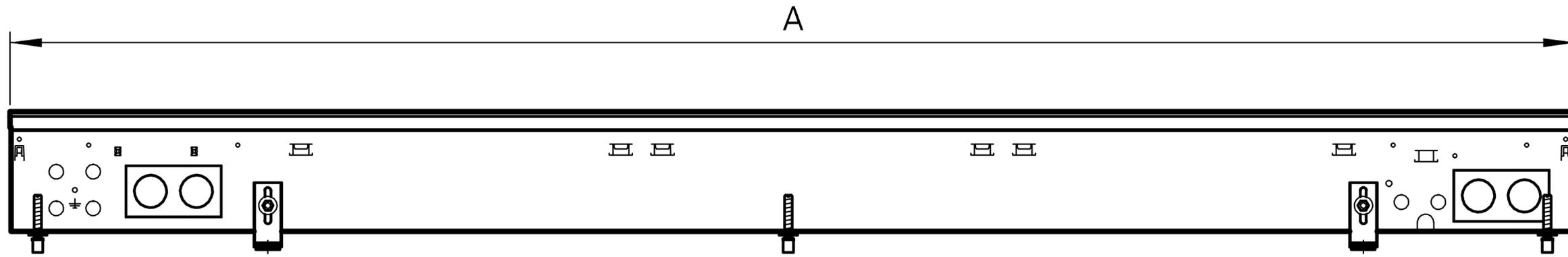
Unit width	Unit height	Unit length	Heat output <sup>1)</sup>		Sensible cooling output <sup>2)</sup>		Sound pressure level <sup>3) 4)</sup>	Sound power level <sup>4)</sup>
B	C	A	2-pipe	4-pipe	2-Leiter	4-pipe		
[mm]	[mm]	[mm]	[W]	[W]	[W]	[W]	[dB(A)]	[dB(A)]
320	130	915	690–2075	530–1206	87–360	87–355	<20–39	<28–47
		1200	1176–3602	936–2180	150–634	149–624	<20–41	<28–49
		1700	2135–6040	1720–3787	272–1064	272–1047	<20–41	<28–49
		2000	2404–7512	1985–4755	310–1342	305–1321	<20–44	<28–52
		2500	3363–10026	2773–6361	429–1765	428–1738	<20–44	<28–52
		3000	4324–12479	3561–7967	552–2188	550–2155	<20–44	<28–52
290	160	950	673–2811	564–1586	75–534	72–495	<20–39	<28–47
		1200	1137–4752	954–2681	127–903	121–837	<20–42	<28–50
		1700	1810–7562	1518–4268	202–1437	193–1332	<20–44	<28–52
		2000	2370–9905	1988–5590	265–1882	253–1744	<20–45	<28–53
		2500	3027–12648	2539–7138	338–2404	323–2228	<20–46	<28–54
		3000	4036–16865	3385–9517	451–3205	431–2970	<20–47	<28–55
360	210	950	887–4113	643–2982	92–816	95–802	<20–51	<28–59
		1200	1471–6819	1066–4944	152–1352	158–1329	<20–52	<28–60
		1350	1821–8442	1320–6121	189–1674	195–1646	<20–52	<28–60
		1850	2755–12771	1998–9261	286–2533	295–2490	<20–53	<28–61
		2250	3642–16884	2641–12243	378–3348	390–3291	<20–55	<28–63

<sup>1)</sup> Heat output per Katherm HK at LPHW 75/65 °C, room air temperature 20 °C, with fan assisted convection

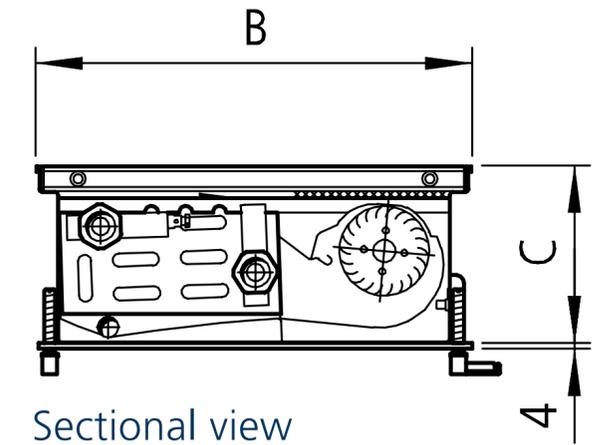
<sup>2)</sup> Cooling output per Katherm HK, with an average speed setting 60 %, at CHW 6/12 °C, room air temperature 27 °C, 48 % relative humidity, with fan assisted convection

<sup>3)</sup> The sound pressure levels were calculated with an assumed room insulation of 8 dB(A). This corresponds to a distance of 2 m, a room volume of 100 m<sup>3</sup> and a reverberation time of 0.5 s

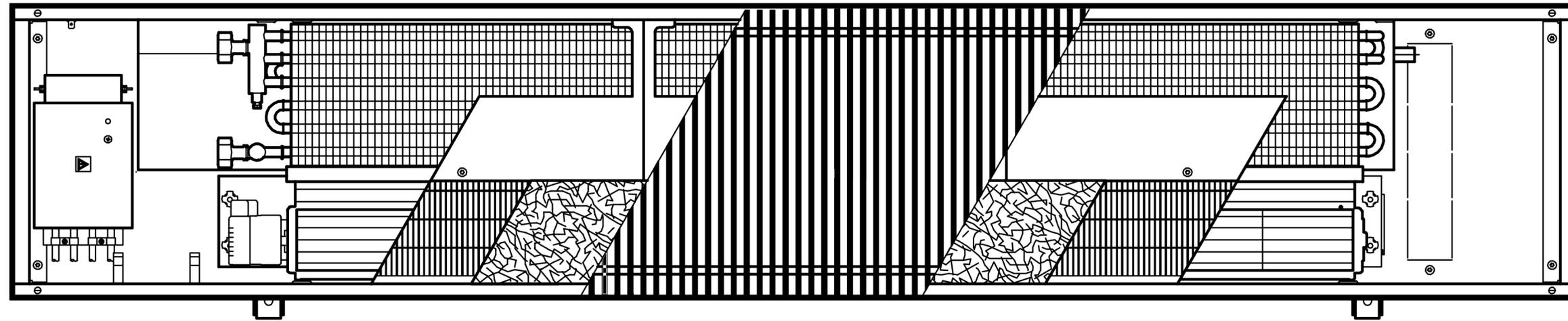
<sup>4)</sup> Sound pressure level < 20 dB (A) and sound power level < 28 dB (A) outside the usual measuring and audible range.



Frontview

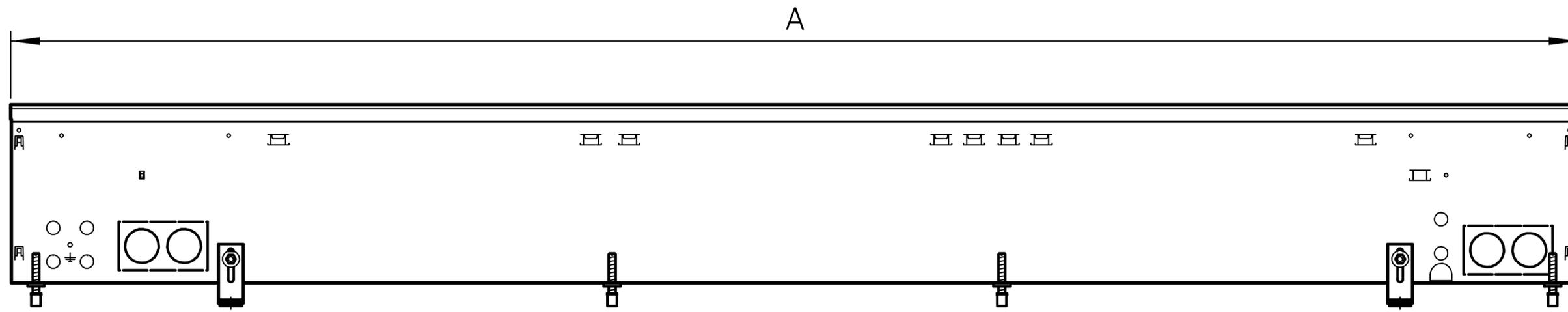


Sectional view

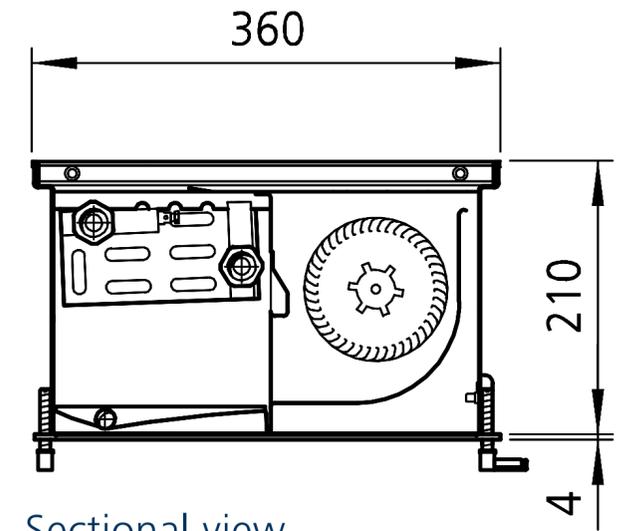


Top view

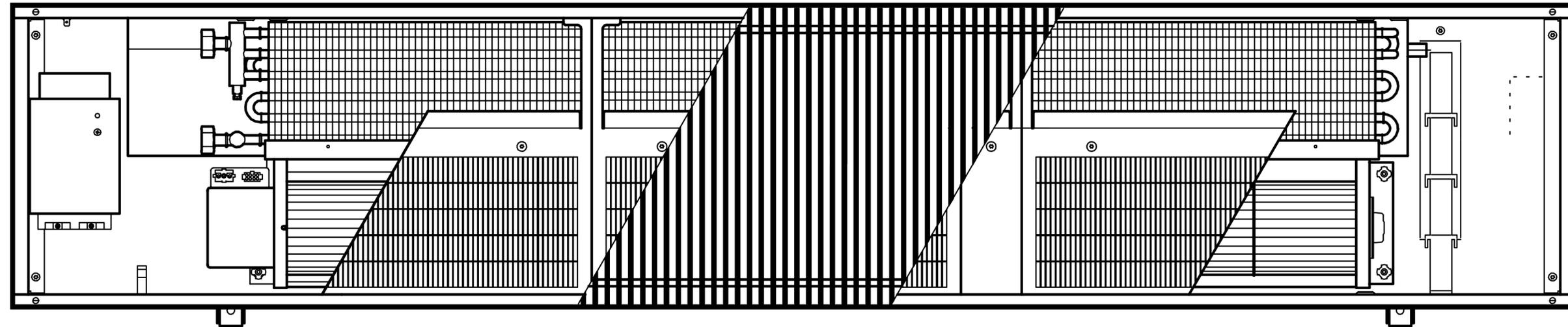
Unit length A	Unit width B	Unit height C
[mm]	[mm]	[mm]
915	320	130
1200	320	130
1700	320	130
2000	320	130
2500	320	130
3000	320	130
950	290	160
1200	290	160
1700	290	160
2000	290	160
2500	290	160
3000	290	160



Frontview

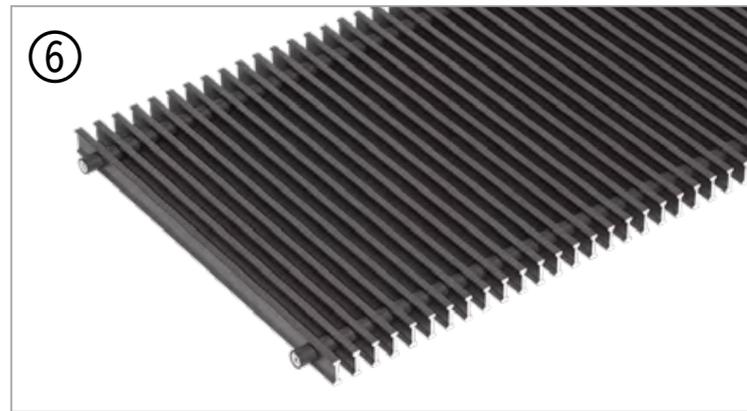
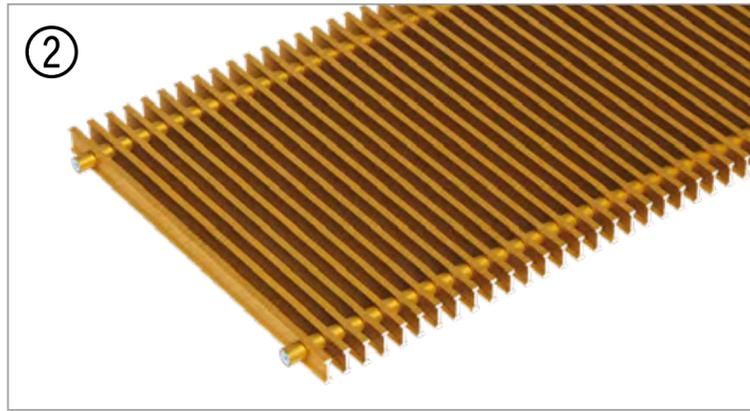
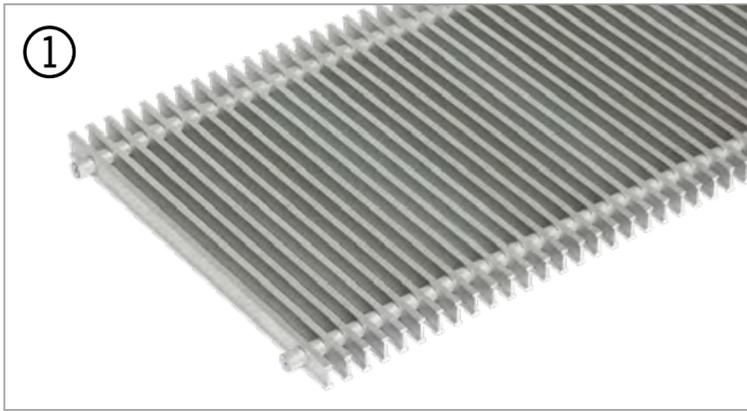


Sectional view



Top view

Unit length A
[mm]
950
1200
1350
1850
2250



- ① Aluminium, natural anodised
- ② Aluminium, brass anodised
- ③ Aluminium, bronze anodised
- ④ Aluminium, bronze finish
- ⑤ Aluminium, black anodised
- ⑥ Aluminium, basalt grey painted DB 703
- ⑦ Stainless steel
- ⑧ Stainless steel, polished
- ⑨ Brass, natural

Aluminium roll-up grille, natural anodised:

- > double T-profile roll-up grille
- > bar dimension 18 x 5 mm (stainless steel 18 x 6 mm)
- > bar spacing 12 mm (stainless steel 10.5 mm)
- > connections made of corrosion-proof steel springs with spacers in a matching colour
- > 70 % free area

Matching grilles



## Benefits for you!

Kampmann offers you the following service benefits:

- > On-site consultation
- > Diverse sampling
- > Planning support
- > Detailed discussions
- > Site-surveys
- > Individual training
- > After Sales Service

Find your contact person here:

**[Kampmanngroup.com](https://www.kampmanngroup.com)**

Contact

**KAMPMANN**