

# Trench Technology

For a comfortable room climate

Genau  
mein  
Klima.

**KAMPMANN**

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Trench heating systems are the first choice for sophisticated rooms with floor-to-ceiling windows. Conventional radiators often obstruct the view and attract unwanted attention. They often do not harmonize with the architectural vision.

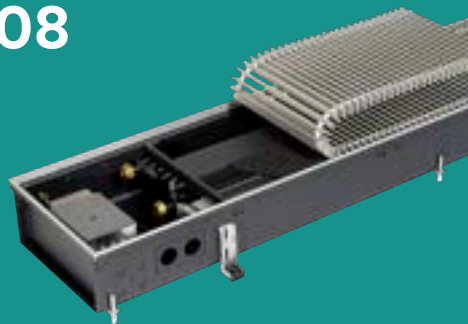
Trench technology units from Kampmann are installed in the floor along the windows. They blend in with the overall appearance and provide effective temperature control. Complete room heating and cooling, residual heat coverage, cold air screening, and façade ventilation: Kampmann trench heating and cooling systems provide an individual feel-good climate.

04



**Company**

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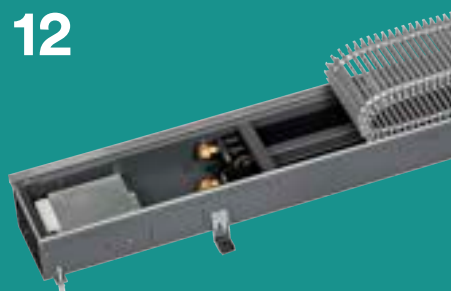
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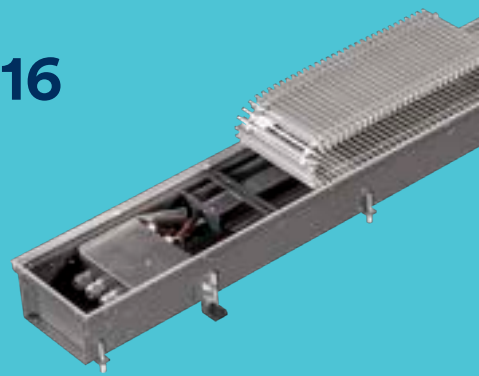
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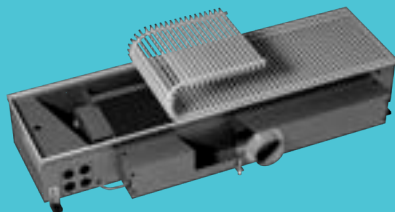
**Katherm  
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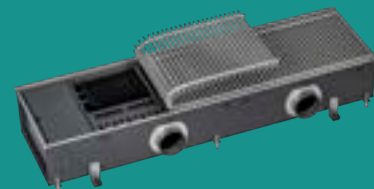
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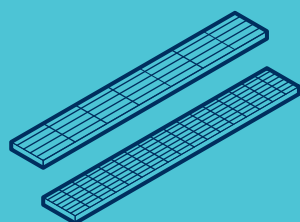
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# We are the technology leader, thanks to our myriad options.

With over 1000 employees at 15 sites around the world, Kampmann is one of the major players in the construction and building services sector. **Kampmann systems for heating, cooling and ventilation are at the forefront of different market segments today.**

**Genau mein Klima**







1000+

**Kampmann Group  
employees**

# 11421

trench heating product variants  
in the standard range alone



## International sites



### Headquarters

Kampmann GmbH & Co. KG  
Lingen (Ems)  
Germany



> Canada / USA  
> France

> Italy  
> Netherlands

> Austria  
> Poland

> Switzerland  
> Great Britain

		Heating	Supply air	Cooling	Water-based coil	EC tangential fan	Electric heating coil	Heat output in [W]	Cooling output in [W]
<b>HK</b> 	I would like to heat and cool.	✓	✓	✓	✓	✓	×	436 – 16884 <sup>1)</sup>	121 – 3348 <sup>2)</sup>
<b>HK E</b> 	I would like to heat electrically and cool with water.	✓	✓	✓	✓	✓	✓	200 – 1500 <sup>3)</sup>	121 – 2589 <sup>2)</sup>
<b>QK</b> 	I would like to heat using low supply temperatures.	✓	✓	×	✓	✓	×	437 – 6025 <sup>1)</sup>	×
<b>QK nano</b> 	I have very little space.	✓	×	×	✓	✓	×	249 – 3534 <sup>1)</sup>	×

<sup>1)</sup> At LPHW 75/65°C, room temperature = 20 °C | <sup>2)</sup> At CHW 16/18 °C, room temperature = 27 °C, 48% rel. humidity |

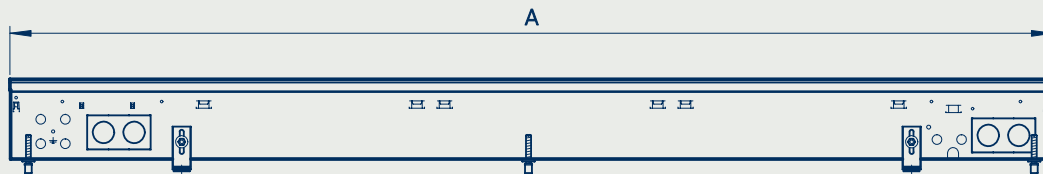
<sup>3)</sup> At LPHW 75/65 °C, room temperature = 20 °C, with fan-assisted convection / when operating with an electric heating coil | <sup>4)</sup> Electrical heat output with BMS control voltage 2 – 10 V

		Heating	Supply air	Cooling	Water-based coil	EC tangential fan	Electric heating coil	Heat output in [W]	Cooling output in [W]
<b>QE</b>	 I would like to heat electrically.	✓	×	×	×	✓	✓	160 – 2400 <sup>4)</sup>	×
<b>NK</b>	 I would like to heat without a fan.	✓	✓	×	✓	×	×	78 – 5590 <sup>1)</sup>	×
<b>ID</b>	 I would like to supply primary air by induction.	✓	✓	✓	✓	×	×	Individual	Individual
<b>QL</b>	 I would like to heat with displacement ventilation.	✓	✓	×	✓	×	×	107 – 1171 <sup>1)</sup>	×

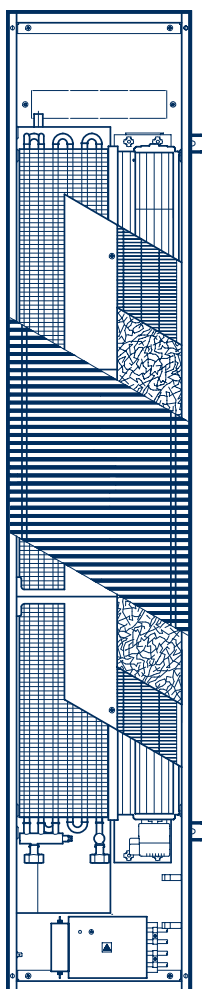
<sup>4)</sup> At CHW 16/18 °C, room temperature = 26 °C, 48% rel. humidity | <sup>4)</sup> At LPHW 75/65 °C, room temperature = 20 °C, outside air temperature = -12 °C

<sup>7)</sup> At CHW 16/18 °C, room temperature = 26 °C, outside air temperature = 32 °C

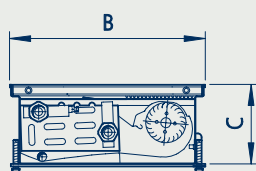
Front view



Top view  
(without cover)



Cross-sectional view



# HK

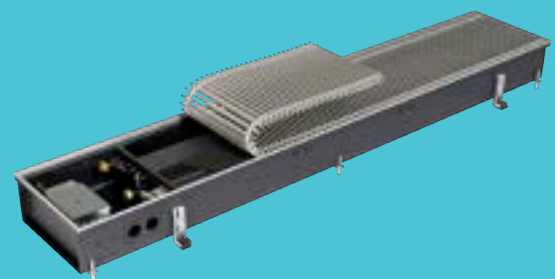
**Trench heater for heating or cooling.**  
EC tangential fan-assisted convection, whisper-quiet and energy-efficient.

Heating:  
LPHW

Cooling:  
CHW

Ventilation: (optional) through supply air modules or supply air ducts

Whisper-quiet:  
EC technology



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Products > Trench technology





## Technical data

System						
2-pipe		4-pipe		Height (C) [mm]	Width (B) [mm]	Length (A) [mm]
heat output LPHW <sup>1)</sup>	Cooling output <sup>2)</sup>	heat output LPHW <sup>1)</sup>	Cooling output <sup>2)</sup>			
[W]	[W]	[W]	[W]			
697 – 1764	125 – 384	436 – 1085	121 – 373	130	320	915
1025 – 2908	189 – 571	726 – 1809	184 – 552			1200
1696 – 5232	223 – 964	1307 – 3256	214 – 927			1700
1884 – 5814	247 – 1071	1452 – 3618	238 – 1030			2000
2612 – 8139	289 – 1491	2033 – 5065	333 – 1442			2500
3382 – 10465	387 – 1925	2614 – 6512	370 – 1851			3000
637 – 1452	66 – 251	462 – 1053	62 – 237	160	245	915
1061 – 2420	110 – 419	770 – 1755	103 – 394			1200
1910 – 4355	198 – 754	1385 – 3158	186 – 710			1700
2123 – 4839	220 – 837	1539 – 3509	207 – 789			2000
2972 – 6775	308 – 1172	2155 – 4913	290 – 1104			2500
3821 – 8710	395 – 1507	2771 – 6316	372 – 1420			3000
1057 – 3286	114 – 486	514 – 1639	112 – 476	290	360	950
1599 – 4851	165 – 801	852 – 2718	162 – 785			1200
1657 – 7262	212 – 1284	1366 – 4357	207 – 1258			1700
2149 – 9420	275 – 1665	1771 – 5652	269 – 1632			2000
2283 – 12055	333 – 2148	2285 – 7291	347 – 2105			2500
3085 – 15715	444 – 2783	2961 – 9448	435 – 2728			3000
1223 – 4645	120 – 818	643 – 2982	114 – 771	210	360	950
1933 – 7152	185 – 1352	1066 – 4944	176 – 1273			1200
2332 – 8667	222 – 1674	1320 – 6121	211 – 1576			1350
2708 – 12555	281 – 2489	1964 – 9104	264 – 2344			1850
3642 – 16884	377 – 3348	2641 – 12243	356 – 3153			2250

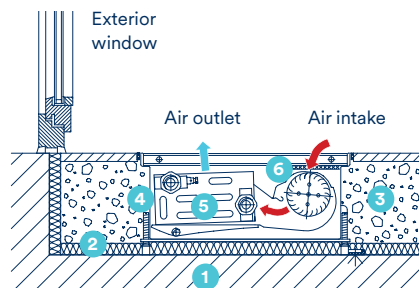
<sup>1)</sup> at LPHW 75/65 °C,  $t_{L1}$  = 20 °C, with fan coils

<sup>2)</sup> with CHW 16/18 °C,  $t_{L1}$  = 27 °C, 48% rel. humidity, with fan coils

## Installation options

### HK 320

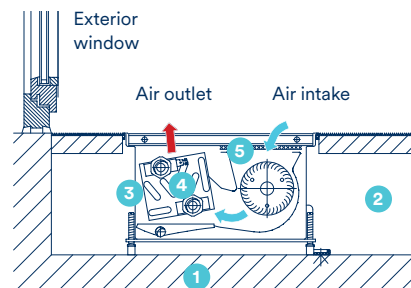
Installed in screed



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

### HK 290

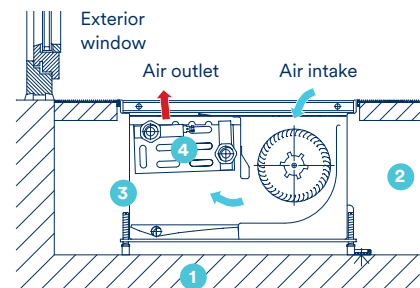
Installed in a raised floor



- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil
- 5 Filter (optional)

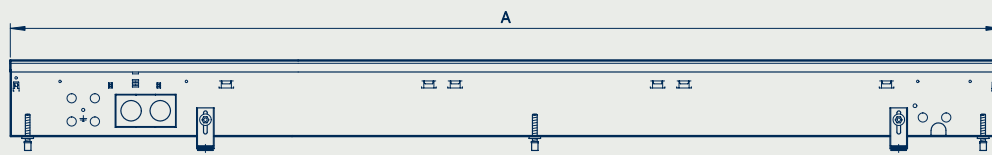
### HK 360

Installed in a raised floor

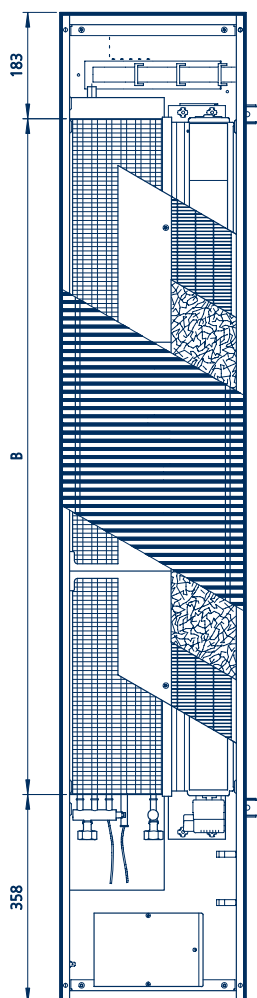


- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil

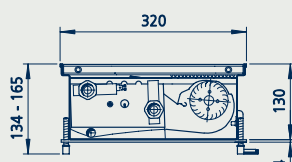
Front view



Top view  
(without cover)



Cross-sectional view



# HKE

**Trench heater with  
electric heating mode  
and coil-based cooling/  
heating.  
2-pipe solution with  
4-pipe comfort.**

#### Heating:

LPHW or electric heating coil

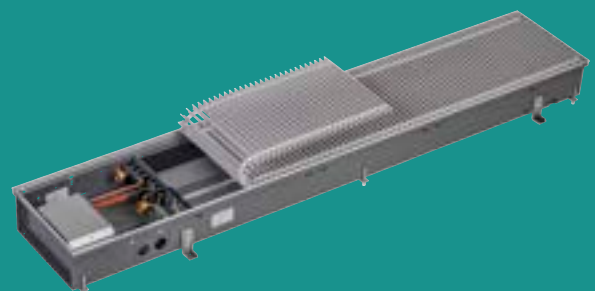
#### Cooling:

CHW

**Ventilation: (optional)** through supply air modules or  
supply air ducts

#### Whisper-quiet:

EC technology



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# Technical data

2-pipe electric heating element					
electric heat output <sup>3)</sup>	heat output LPHW <sup>1)</sup>	Cooling output <sup>2)</sup>	Height (C)	Width (B)	Length (A)
[W]	[W]	[W]	[mm]	[mm]	[mm]
200 – 500	648 – 1653	121 – 373	130	320	915
400 – 1000	951 – 2724	184 – 552			1200
	1565 – 4900	214 – 927			1700
	1739 – 5445	238 – 1030			2000
	2408 – 7623	276 – 1432			2500
600 – 1500	3120 – 9800	370 – 1851	160	290	3000
200 – 500	993 – 3115	108 – 453			950
	1509 – 4570	156 – 745			1200
	1541 – 6754	197 – 1194			1700
	1999 – 8760	255 – 1548			2000
	2101 – 11179	307 – 1998			2500
600 – 1500	2836 – 14600	410 – 2589			3000

<sup>1)</sup> at LPHW 75/65 °C,  $t_{L1}$  = 20 °C, with fan coils

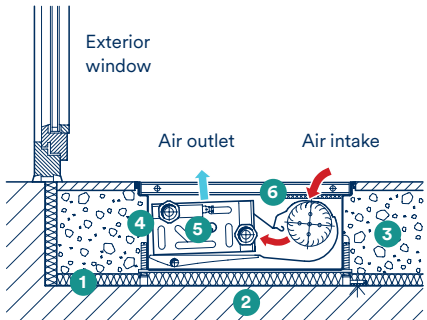
<sup>2)</sup> with CHW 16/18 °C,  $t_{L1}$  = 27 °C, 48% rel. humidity, with fan coils

<sup>3)</sup> when operating with an electric heating element

## Installation options

HKE 320 E, trench height 130 mm

Installed in screed



1 Heat and sound insulation

2 Concrete slab

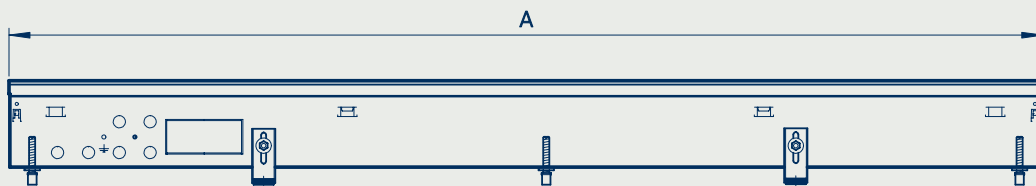
3 Screed

4 Floor trench

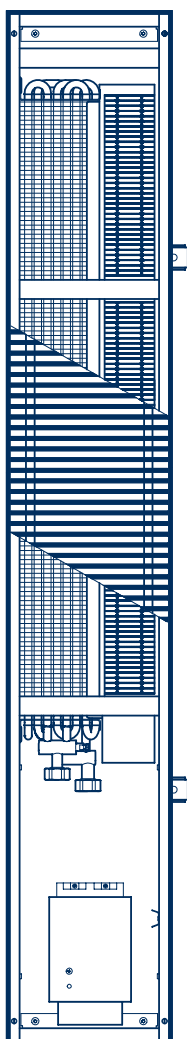
5 High-output coil

6 Filter (optional)

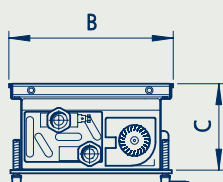
Front view



Top view  
(without cover)



Cross-sectional view



# QK

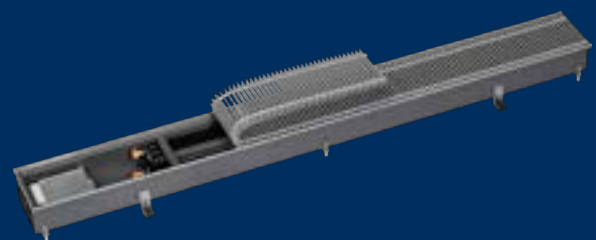
Trench heater with EC tangential fan-assisted convection.

For heating with low supply temperatures.

Heating:  
LPHW

Ventilation: (optional) through supply air modules

Whisper-quiet:  
EC technology



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### Technical data

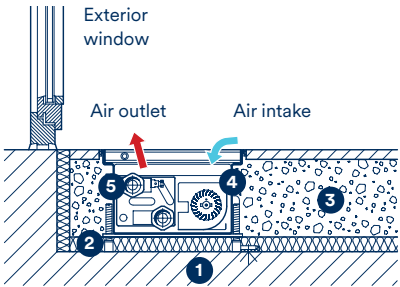
Heat output <sup>1)</sup> [W]	Width (B) [mm]	Length (A) [mm]	Height (C) [mm]
437 – 5781	190	1000 – 3200	112
522 – 6025	215		

<sup>1)</sup> at LPHW 75/65 °C, t<sub>l</sub> = 20 °C, with 12 mm grille bar spacing, approx. 70% free area.

### Installation options

#### QK 190

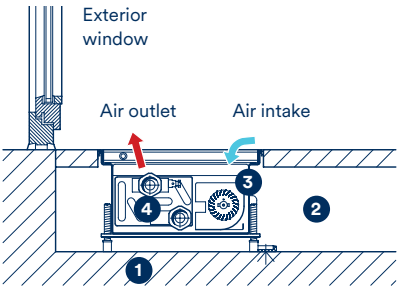
Installed in screed, H = 112 mm, W = 190 mm



- 1 Concrete slab
- 2 Heat and sound insulation
- 3 Screed
- 4 Floor trench
- 5 High-output coil

#### QK 215

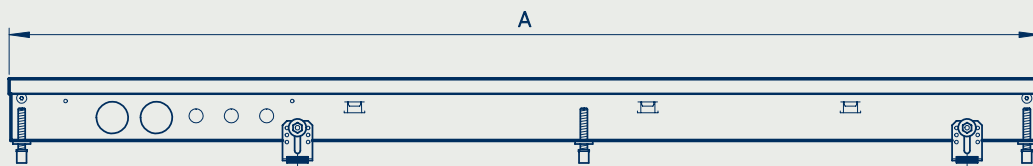
Installed in a raised floor, H = 112 mm, W = 215 mm



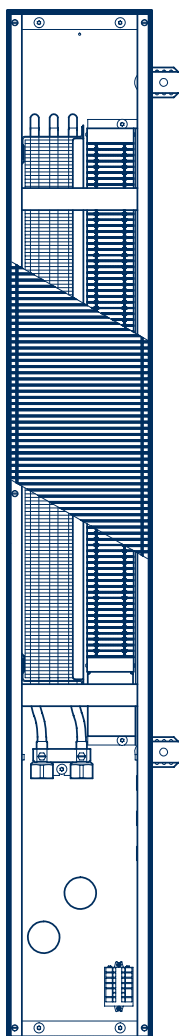
- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil



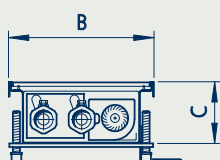
Front view



Top view  
(without cover)



Cross-sectional view

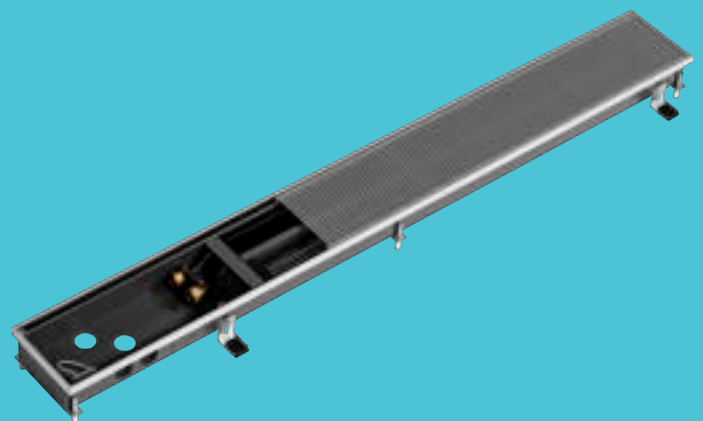


# QK nano

Trench heater for heating and ventilation. Nano format – top performance. Heating with EC tangential fan with low supply temperatures.

Heating:  
LPHW

Whisper-quiet:  
EC technology



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Products > Trench technology



Technical data

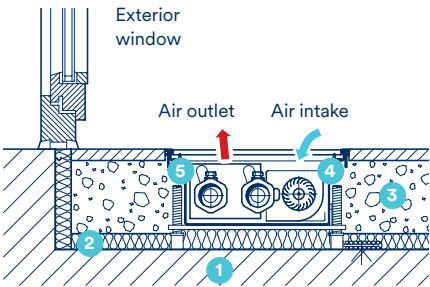
Heat output [W]	Height (C) [mm]	Width (B) [mm]	Control option	
			KaControl Length (A) [mm]	electromechanical 24 V Length (A) [mm]
249 – 774	70	165	1100	900
497 – 1549			1600	1400
746 – 2323			2000	1800
937 – 2920			2300	2100
1134 – 3534			2700	2600

<sup>1)</sup> at LPHW 75/65 °C, t<sub>l1</sub> = 20 °C

Installation options

Installed in screed

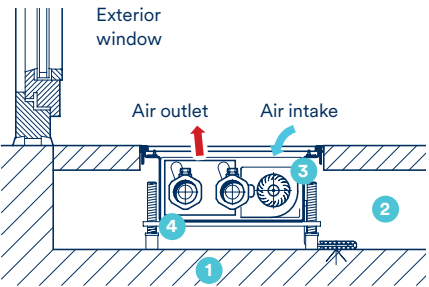
H = 70 mm, W = 165 mm



- 1 Concrete slab
- 2 Heat and sound insulation
- 3 Screed
- 4 EC tangential fan
- 5 High-output coil

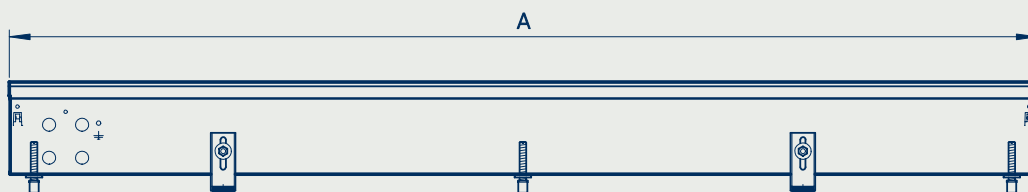
Installed in a raised floor

H = 70 mm, W = 165 mm

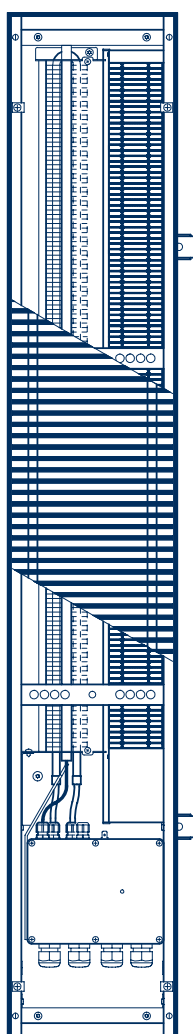


- 1 Concrete slab
- 2 Raised floor
- 3 EC tangential fan
- 4 High-output coil

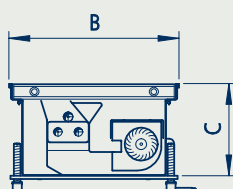
Front view



Top view  
(without cover)



Cross-sectional view

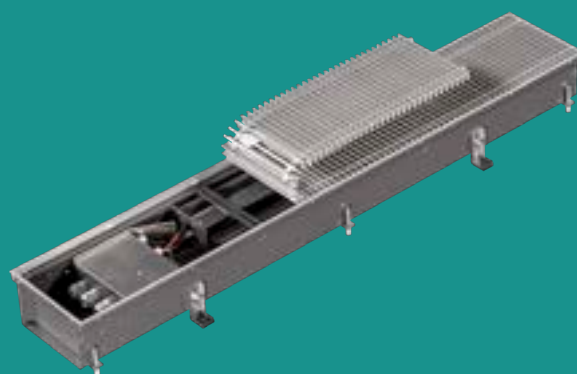


# QE

**Cross-flow fan  
convection with electric  
heating coil and fan  
assistance.**

Heating:  
electric heating coil

Whisper-quiet:  
EC technology



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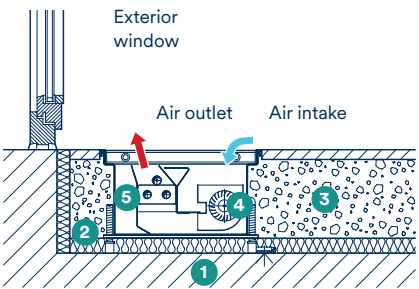
Technical data

max. heating capacity [W]	Width (B) [mm]	Height (C) [mm]	Length (A) [mm]
160 – 800	207	112	825
320 – 1600			1250
480 – 2400			1700

Installation options

Installed in screed

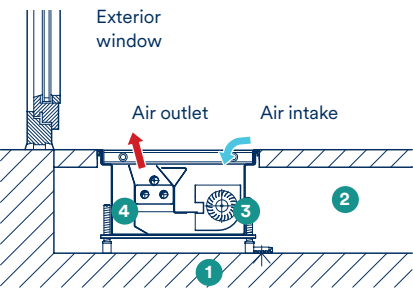
H = 112 mm, W = 207 mm



- 1 Concrete slab
- 2 Heat and sound insulation
- 3 Screed
- 4 EC tangential fan
- 5 Electric heating coil

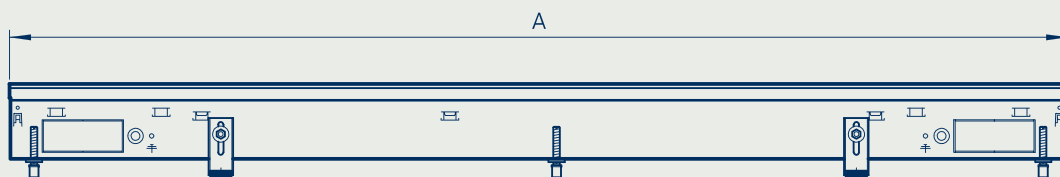
Installed in a raised floor

H = 112 mm, W = 207 mm

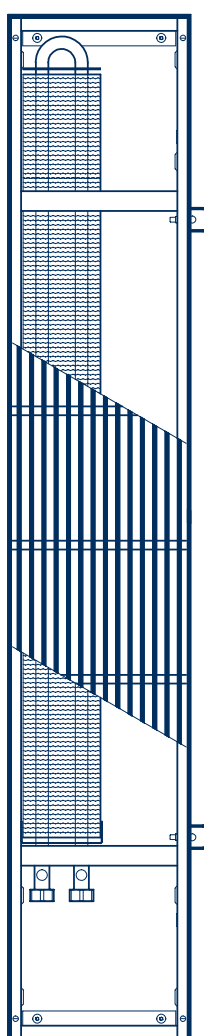


- 1 Concrete slab
- 2 Raised floor
- 3 EC tangential fan
- 4 Electric heating coil

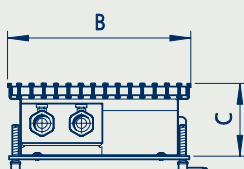
Front view



Top view  
(without cover)



Cross-sectional view

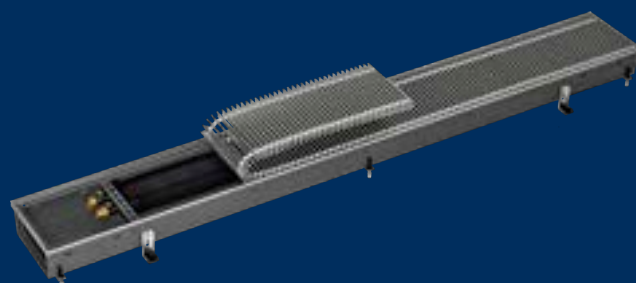


# NK

Trench heater with  
natural convection,  
and no rotating parts.

Heating:  
LPHW

Ventilation: (optional) through supply air modules



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# Technical data

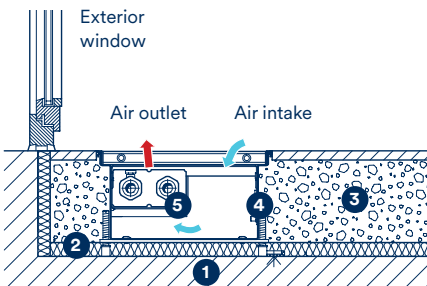
Heat output <sup>1)</sup> [W]	Height (C) [mm]	Width (B) [mm]	Length (A) [mm]
78 – 981	92	137	800 – 5000
84 – 1050	120		
132 – 1295	92		
162 – 1594	120	182	
206 – 1857	150		
232 – 2084	200		
157 – 1530	92	232	
193 – 1881	120		
309 – 2778	150		
334 – 3010	200	300	
209 – 2036	92		
268 – 2609	120		
394 – 3545	150	380	
445 – 4003	200		
279 – 2717	92		
344 – 3353	120	380	
485 – 4362	150		
621 – 5590	200		

<sup>1)</sup> at LPHW 75/65 °C, t<sub>l</sub> = 20 °C

## Installation options

### NK 232

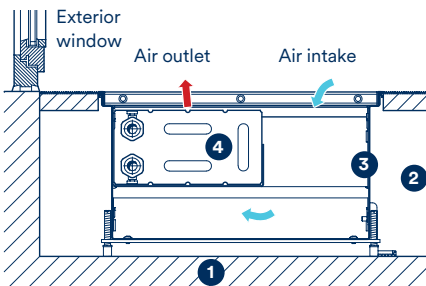
Installed in screed



- 1 Concrete slab
- 2 Heat and sound insulation
- 3 Screed
- 4 Floor trench
- 5 High-output coil

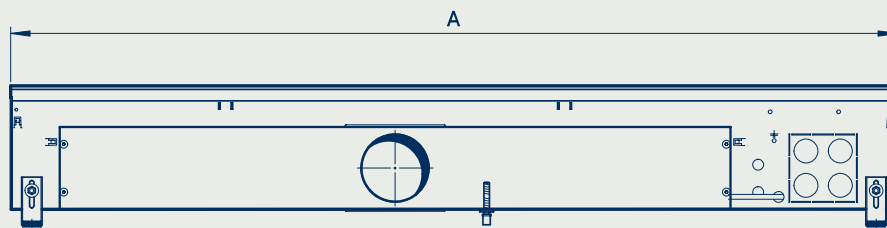
### NK 380

Installed in a raised floor

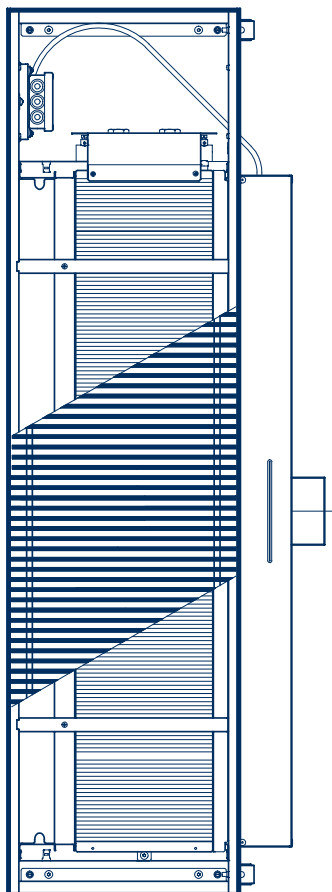


- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil

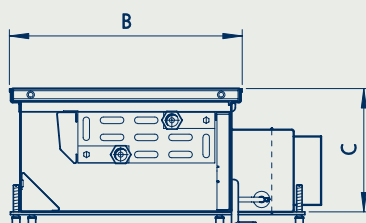
Front view



Top view  
(without cover)



Cross-sectional view



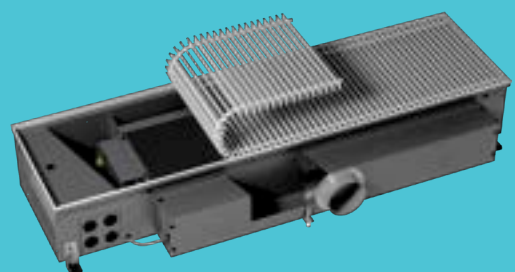
# ID

**Trench heater for heating and cooling with induced and fresh air without rotating parts with conditioned supply air.**

Heating:  
LPHW

Cooling:  
CHW

Ventilation:  
continuous supply air is fed into the room



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Products > Trench technology



# Technical data

System				Width (B) [mm]	Height (C) [mm]	Length (A) [mm]
2-pipe		4-pipe				
Heat output <sup>1)</sup> [W]	Cooling output <sup>2)</sup> [W]	Heat output <sup>1)</sup> [W]	Cooling output <sup>2)</sup> [W]			
990 – 1684	115 – 227	817 – 1184	115 – 227	340	180	800
1620 – 2213	196 – 292	1280 – 1592	196 – 292			1000
1961 – 2890	233 – 382	1580 – 2073	233 – 382			1200
2590 – 3567	314 – 472	2042 – 2554	314 – 472			1400
2931 – 4244	351 – 562	2343 – 3036	351 – 562			1600
1069 – 1850	135 – 270	817 – 1184	135 – 265		205	800
1758 – 2425	231 – 347	1280 – 1592	229 – 341			1000
2123 – 3168	274 – 455	1580 – 2073	272 – 446			1200
2811 – 3911	370 – 562	2042 – 2554	367 – 552			1400
3176 – 4654	413 – 670	2343 – 3036	410 – 657			1600

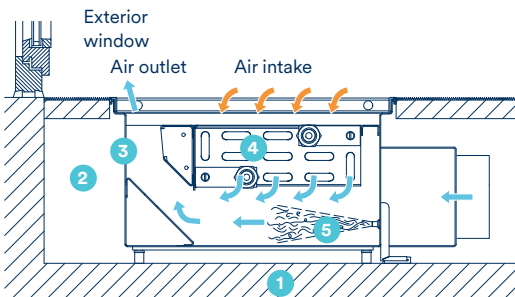
<sup>1)</sup> at LPHW 75/65 °C, t<sub>L1</sub> = 20 °C

<sup>2)</sup> at CHW 16/18, t<sub>L1</sub> = 27 °C, 48% relative humidity

## Installation options

### ID 340 in cooling mode

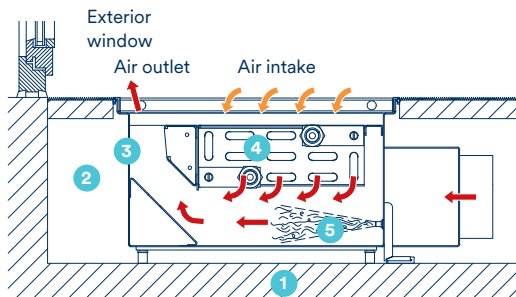
Installed in a raised floor



- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil
- 5 Induction nozzle

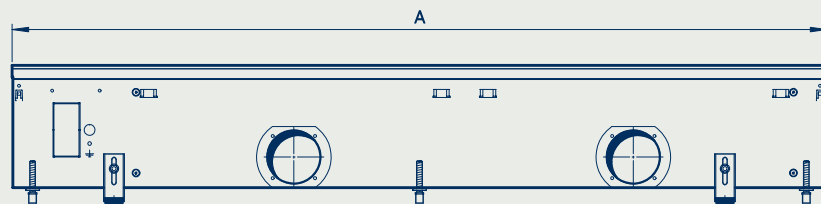
### ID 340 in heating mode

Installed in a raised floor

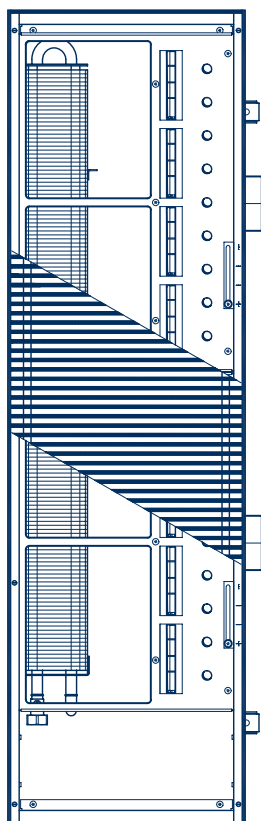


- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil
- 5 Induction nozzle

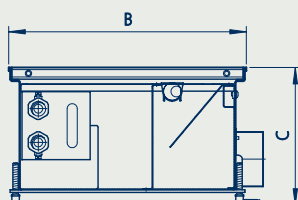
Front view



Top view  
(without cover)



Cross-sectional view

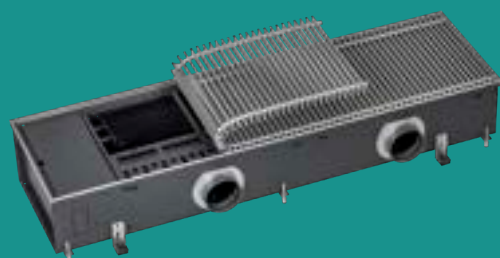


# QL

The displacement ventilation system for draught-free and energy-saving displacement ventilation for a pleasant indoor climate.

Heating:  
LPHW

Ventilation:  
continuous supply air is fed into the room



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Products > Trench technology



## Technical data

Heat output without primary air flow volume <sup>1)</sup>	Heat output with primary air flow volume <sup>2)</sup>	Width (B)	Height (C)	Length (A)	Number of displacement air modules <sup>3)</sup>
[W]	[W]	[mm]	[mm]	[mm]	[St.]
131	107	300	150	700	1
294	247			1200	2
457	387			1700	3
620	526			2200	4
783	666			2700	5
166	143		180	700	1
374	327			1200	2
581	511			1700	3
789	695			2200	4
996	879			2700	5
156	133	350	150	700	1
351	304			1200	2
546	476			1700	3
741	647			2200	4
936	819			2700	5
195	172		180	700	1
439	392			1200	2
683	613			1700	3
927	833			2200	4
1171	1054			2700	5

<sup>1)</sup> at LPHW 75/65 °C,  $t_{L1} = 20$  °C, with 12 mm grille bar spacing, approx. 70% free area.

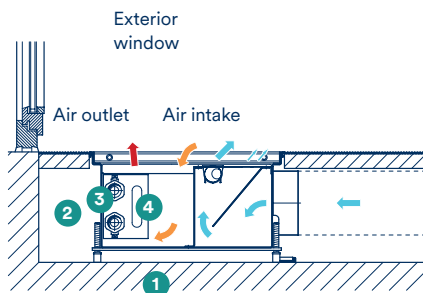
<sup>2)</sup> at LPHW 75/65 °C,  $t_{L1} = 20$  °C, with max. primary air flow volume per trench length and primary air temperature of 18 °C

<sup>3)</sup> Number of displacement air modules dependent on the trench length

## Installation options

### QL 300

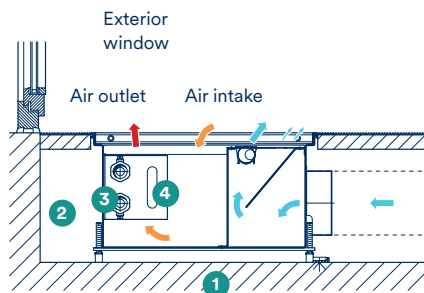
Installed in a raised floor



- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil

### QL 350

Installed in a raised floor



- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output coil



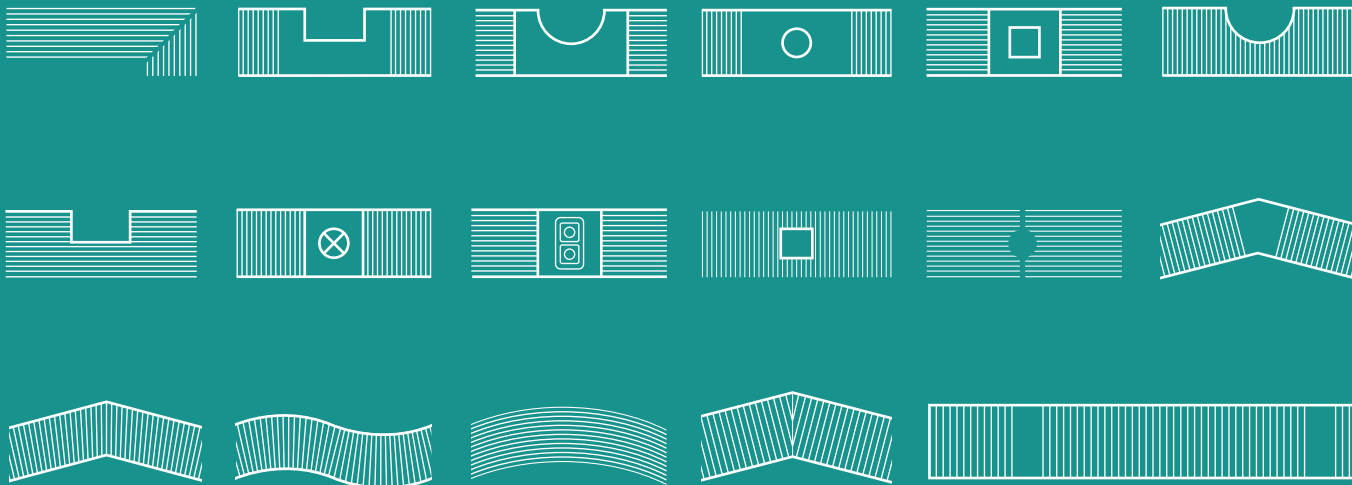
Design grilles

# For more flexibility in room design

# Wide range of designs

Adaptations and special designs are normal in projects.

Katherm trench heaters can therefore be supplied for all geometries, incorporating mitred corners, curved sections, column cut-outs or angles.



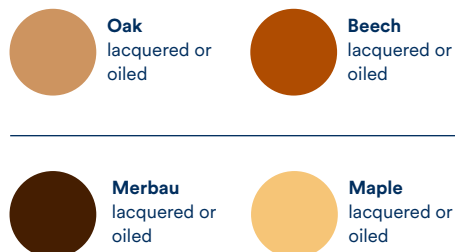
## Materials and colours

Opt for aluminium grilles in a range of anodised finishes. Or for different finishes of wooden grilles. Or polished stainless steel grilles?

### OPTILINE



### WOOD



\* Lacquered or oiled. Wooden grilles cannot be used for Katherm QE, QK nano, QL and ID units.

# Flexibly adjustable

Individual connecting modules between the Kampmann trench heating systems create an overall aesthetic look without disruptive interruptions. Kampmann prepares you for every architectural challenge.



## Technical details



### 1 Connecting module

- > available in various lengths
- > can be shortened on site by up to 100 mm to fit the building structure



### 2 Partition support

- > can be used in combination with the connecting module
- > in a range of different versions for all wall thicknesses
- > position of partition support can be varied



### 3 End module

- > for on-site length adjustment with slide-in head section
- > can be shortened to size



### 4 Corner module

- > connecting module with a 90° angle cannot be shortened



### 5 Column module, rectangular

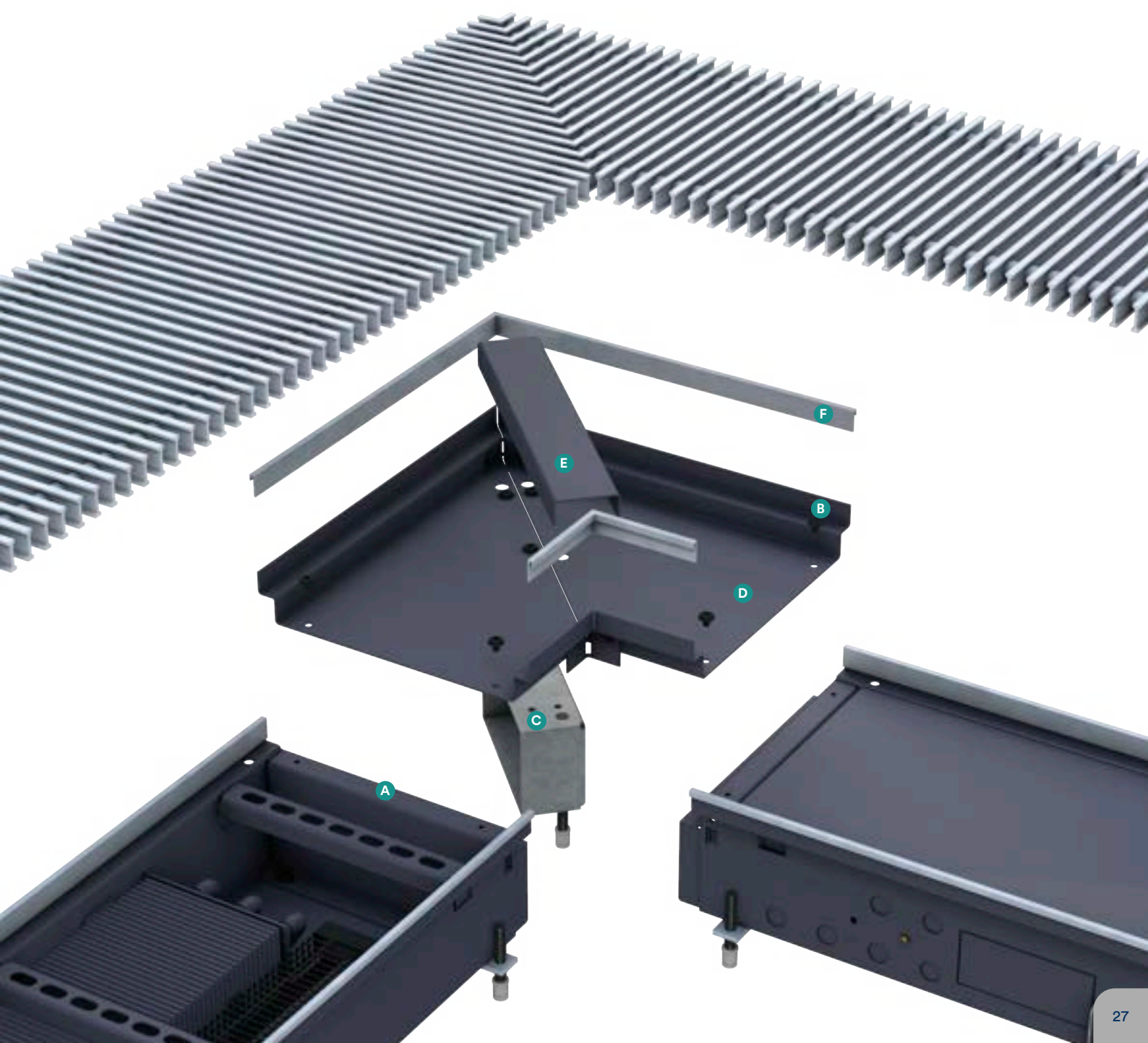
- > connecting module with recess; support element with frame profile is supplied made-to-measure after site measurement
- > ideal for all kinds of façade profiles



### 6 Column module, round

- > connecting module with recess
- > support element with round frame profile is delivered made-to-measure following site measurement

- A** modular brackets combine Katherm trench heaters with the Katherm connecting modules
- B** flat design, for instance for bridging cladding anchors
- C** robust height adjustment for ease of adaptation
- D** Katherm modules can be cut to size on site
- E** grille support
- F** frame profile delivered separately



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



# The perfect addition

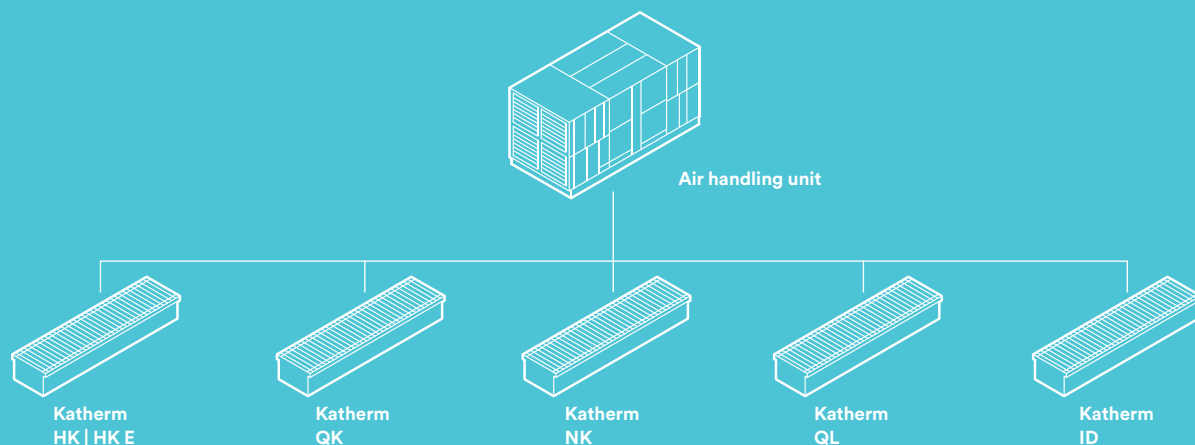
The Katherm supply air trench is available for all trench heaters (Katherm range). It is a 400 mm long trench, which can be fitted to all designs of Katherm units. Conditioned supply air can also be fed in through the Katherm supply air trench ZL. This is achieved by different spigot sizes and spigot designs for different trench measurements (see technical catalogues for the respective Katherm trench heating units). It is possible to regulate the air volume flow by means of slider elements built into the supply air trenches.

## Benefits

- > low leaving air speeds, hence pleasant levels of comfort
- > low sound development when correctly designed
- > low investment and maintenance costs
- > supply air outlets visually identical to Katherm trench heaters
- > no wear parts/no electrically rotating parts



## Genuine team players



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 is maximised. At the same time, efficient heat

recovery from the centralised air handling unit saves energy.

# Comfort

Comfort also plays a key role in air conditioning. We'll help you consider this aspect when designing a project using Kampmann trench heaters, at the same time as complying with the current guidelines in DIN EN 15251 (in future DIN EN 16798 Parts 1 and 2) and DIN EN ISO 7730. Essentially the following recommended values can be assumed:

## In heating mode

Supply air outlet temperature: 20 – 26 °C  
(but not lower than the room temperature),  
outlet speed:

< 1.5 m/s distance of the supply air duct to the occupied zone: > 0.5 m

## In cooling mode

Supply air outlet temperature:

< 4 K below room temperature, outlet speed:

< 1.2 m/s distance of the supply air duct to the occupied zone: > 1 m

## Other parameters

In individual cases, additional parameters, such as room and supply air humidity, as well as leaving air velocity, need to be taken into consideration. (See DIN EN ISO 7730)

## Additional information

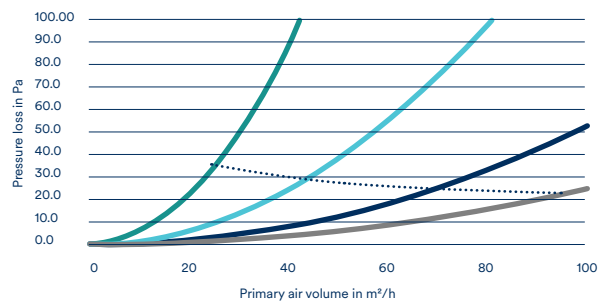
The supply air modules Katherm ZL can be used for cooling, heating or isothermic air exchange using preconditioned primary air. A spigot or connection at the front end is also possible with appropriate trench dimensions and sufficient space in the air outlet area (check on request!).

The upper limit of the air volume flow in the spigot is calculated from the maximum air speed and cross-section of the spigot. This speed should not exceed 3.0 m/s to avoid additional sound emissions. The resulting air-side pressure losses vary according to the air volume flow as per the diagram.

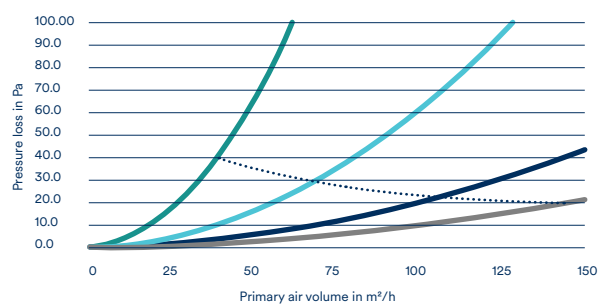
## Design diagrams



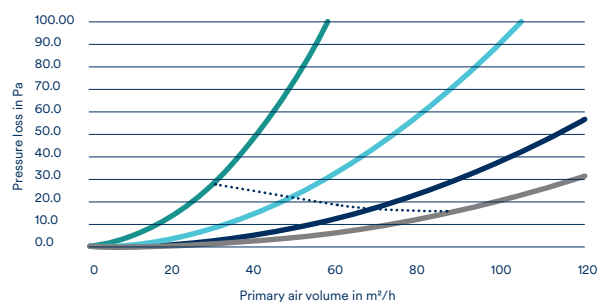
DN 80



DN 100



Oval 51 x 128



With the slider opened by:



30%



50%



75%



100%

..... Sound power level 30 dB(A)



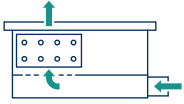


# Supply air versions

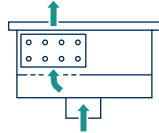
## Katherm NK

With natural convection and additional output increase by convection with conditioned air.

### With supply air spigot below

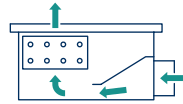


With air guidance through the coil.

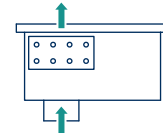


With air guidance through the coil and perforated plate underneath the coil.

### With side supply air spigots



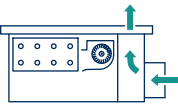
With air guidance through the coil.



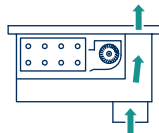
With air guidance through the coil and perforated plate underneath the coil.

## Katherm QK

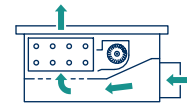
with fan-assisted convection and supply of fresh air.



With air guidance through a separate air discharge duct.



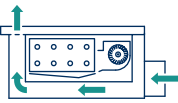
With air guidance through a separate air discharge duct.



With air guidance through the coil and perforated plate underneath the coil.

## Katherm HK | HK E

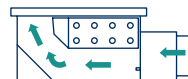
for heating and cooling with in-feed of supply air separately from the air flow from the fan.



With air guidance through separate supply air modules.

## Katherm ID

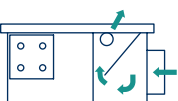
for heating and cooling with in-feed of supply air without fan.



With supply air in-feed under the coil. Secondary air is entrained by the coil.

## Katherm QL

with natural convection and displacement air in heating mode too.



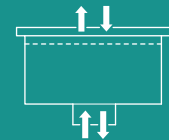
With separate natural convection supply air guidance in heating mode too. (displacement ventilation)





# The right one for everyone


Are the trench dimensions not feasible? They are!

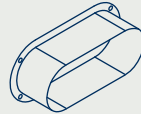


With all trench models, empty trenches with supply air spigots can be integrated into other trench models to feed in supply air. These trenches can also be used as pure extract air trenches.

## Always a perfect fit

Dimensions of supply air versions

Dimensions [mm]	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	65
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 50 x 100	54
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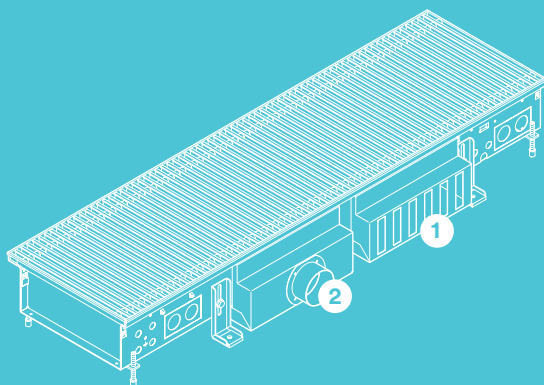
 100 x 150	162
--	-----

## It's your choice

### Alternative supply air in-feed through a pressurised floor

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

- 1 Supply air box for pressurised floor
- 2 Supply air box for DN 80 spigot

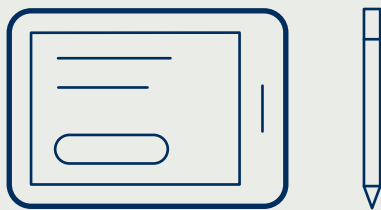


Service

# We are always there for you!

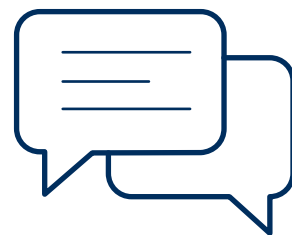
Wherever you are. We have a wide range of tools to support you in your design: smart apps and calculations programs, BIM data and CAD drawings.

## Design



We would be pleased to produce project-specific design drawings and wiring diagrams for your project to make your design easier.

## Consultation



Apart from comprehensive advice on site and design of the building services systems, we can also provide the precise documentation you require for every project.

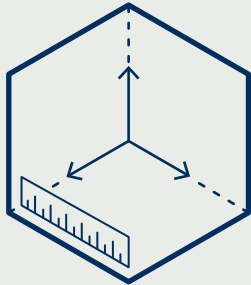
## BIM data sets

Use the BIM data sets for Kampmann Katherm trench heaters for seamless planning processes. They include all unit dimensions, technical water and electrical connection dimensions and performance data.

[kampmanngroup.com/service](https://kampmanngroup.com/service)

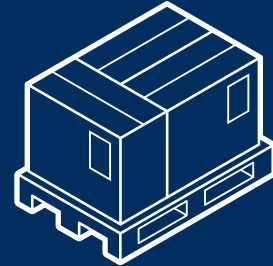


## Site measurement



The site measurements are taken by our own Kampmann technicians using 2D or 3D lasers to avoid inaccuracies. This ensures a precise and efficient site measurement process.

## Delivery



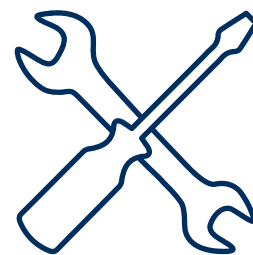
Kampmann products are delivered sorted on pallets to site. The delivery can be clearly assigned to the respective floors and installation position, thanks to clear position information on the packaging.

## Customer service



Rely on the organisation and deployment of our global Customer Service team. Our Kampmann service specialists will provide support at 3 sites and over 130 trained contract engineers at 80 national and international sites.

## Installation



We can support you with our own installation team. Our trench heaters are configured to help the heating contractors on site. Skilled professionals then connect up the water pipes and electrics.



## Geneva Airport, Geneva

“Genève-Cointrin” Airport is becoming increasingly important due to the growing number of destinations and passengers. The new “Aile Est” terminal has been built to prepare for future growth. The glass and steel construction of the terminal extends over 520 metres in length and 20 metres in width and is angled at 26 degrees.

Katherm NK trench units were installed for optimum air conditioning. These convector coils, which are almost invisible by being installed in the floor, are ideal for large glazed façades, guaranteeing efficient air conditioning without impairing the aesthetic design of the terminal.













## BPI France, Maisons-Alfort

The new five-storey training centre in Maisons-Alfort is built in the shape of a cube and features full-height glazed façades on the Marne side. Kampmann trench heaters have been installed here so as not to obstruct the wonderful view. The Katherm HK units designed for the BPI branch are custom-made units. Empty trenches and individual mitres guarantee that the convectors sit as a continuous strip in front of the windows.

Katherm HK provide efficient heating and cooling coupled with low noise levels. The powerful output of the Katherm HK units stands out particularly when they need to cool, essentially working against the laws of nature. What is known as the “short circuit” is optimised where the cool air blown out falls again too quickly and is drawn in again by the convector.

## Quartier Belvedere Central, Vienna



The "Quartier Belvedere Central", abbreviated to QBC, is an extraordinary project – not just because of its scale. Six buildings with a total gross floor area of 130000 square metres will be built on a 25000 square metre area of land. The QBC includes, among other things, hotels, offices, apartments, shops and restaurants - a mix that breathes life into the district even after dark.













## Antares Tower, Barcelona

Antares is a luxury residential complex in the heart of one of Spain's main cities. The graceful 100-metre high building embellishes the skyline, while 1,300 metres of trench heaters have been fitted in the interior over 26 floors.

They provide individual air conditioning in the various rooms of the skyscraper, designed by world-famous architect Odile Decq complete with mitred corners and column recesses.



