

Trench systems

Keeping indoor climates comfortable

Genau
mein
Klima.

KAMPMANN

Contents

Trench systems are ideal choices for rooms that have complex needs and feature floor-to-ceiling windows. Conventional radiators often obscure the views from rooms like this, drawing unwanted attention – and in many cases, they simply do not work in harmony with architectural visions.

Kampmann's trench systems are installed within the floor and run alongside the windows, blending into the overall appearance and delivering effective temperature regulation. From solutions for heating entire rooms to cooling, residual heat coverage, cold air screening, and feeding in fresh air, Kampmann trench systems have what it takes to create a truly comfortable space with every need met.

04



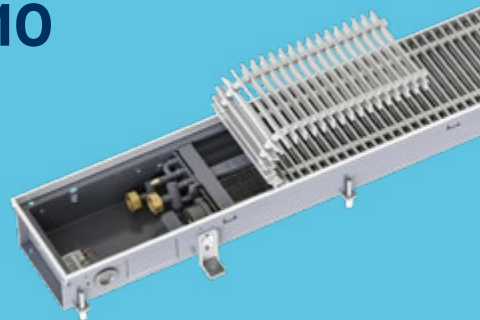
Company

08



**Katherm
HK**

10



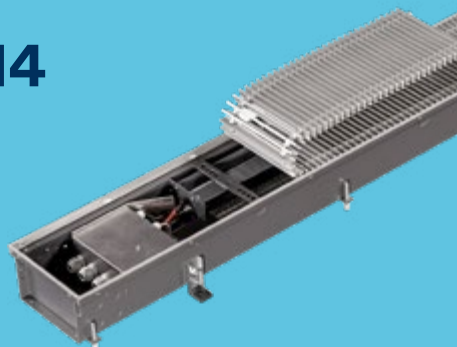
**Katherm
QK**

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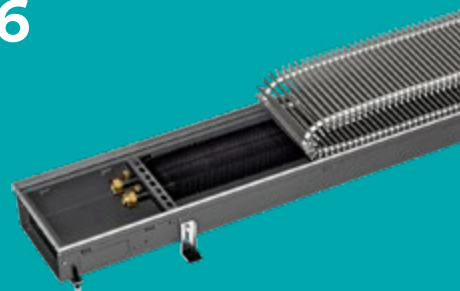
**Katherm
QK nano**

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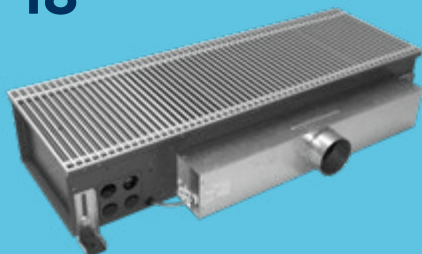
**Katherm
QE**

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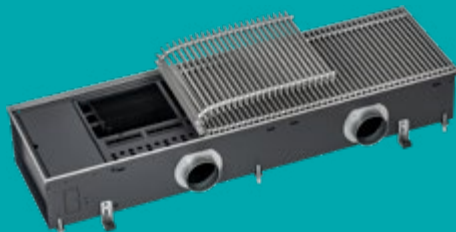
**Katherm
NK**

18



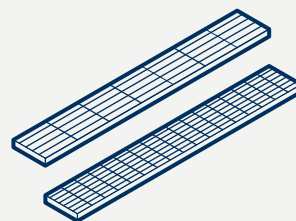
**Katherm
ID**

20



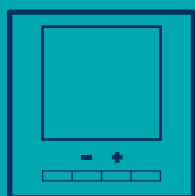
**Katherm
QL**

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**Design
Grilles**

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**Control
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**Supply Air
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Service

The possibilities we create are endless – and that's what keeps our technology ahead of the rest.

Kampmann Heating, Cooling, Ventilation Ltd. is part of the Kampmann Group of companies, which has its HQ in Germany. Kampmann Heating, Cooling, Ventilation Ltd. is responsible for the distribution of products across the North American market.

With more than 1,000 employees at 16 locations, Kampmann is a leading manufacturer of HVAC products and distributes globally. **Kampmann systems for heating, cooling, and ventilation are at the forefront of various market segments today.**

Genau mein Klima





1,000+

Kampmann Group
employees

9,917

trench heater product options
just in our standard range

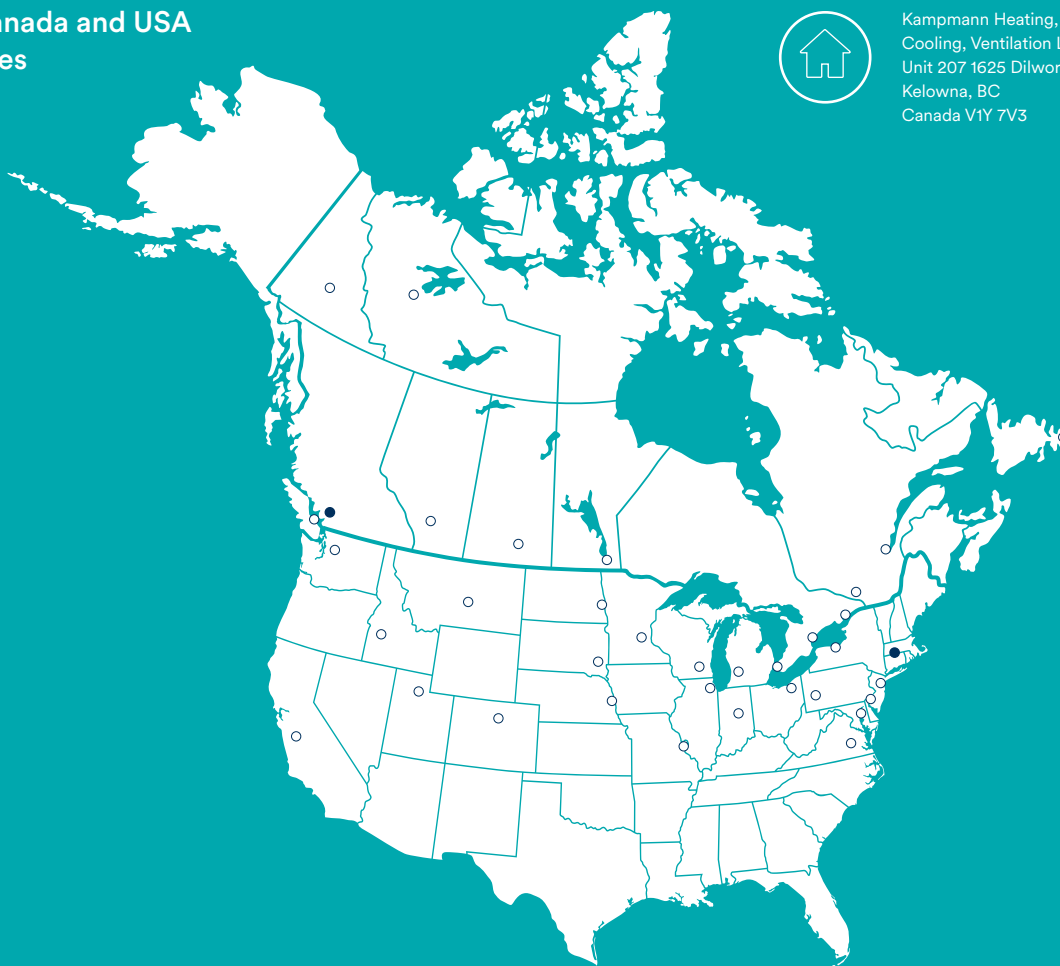








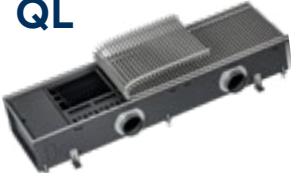
Canada and USA sites



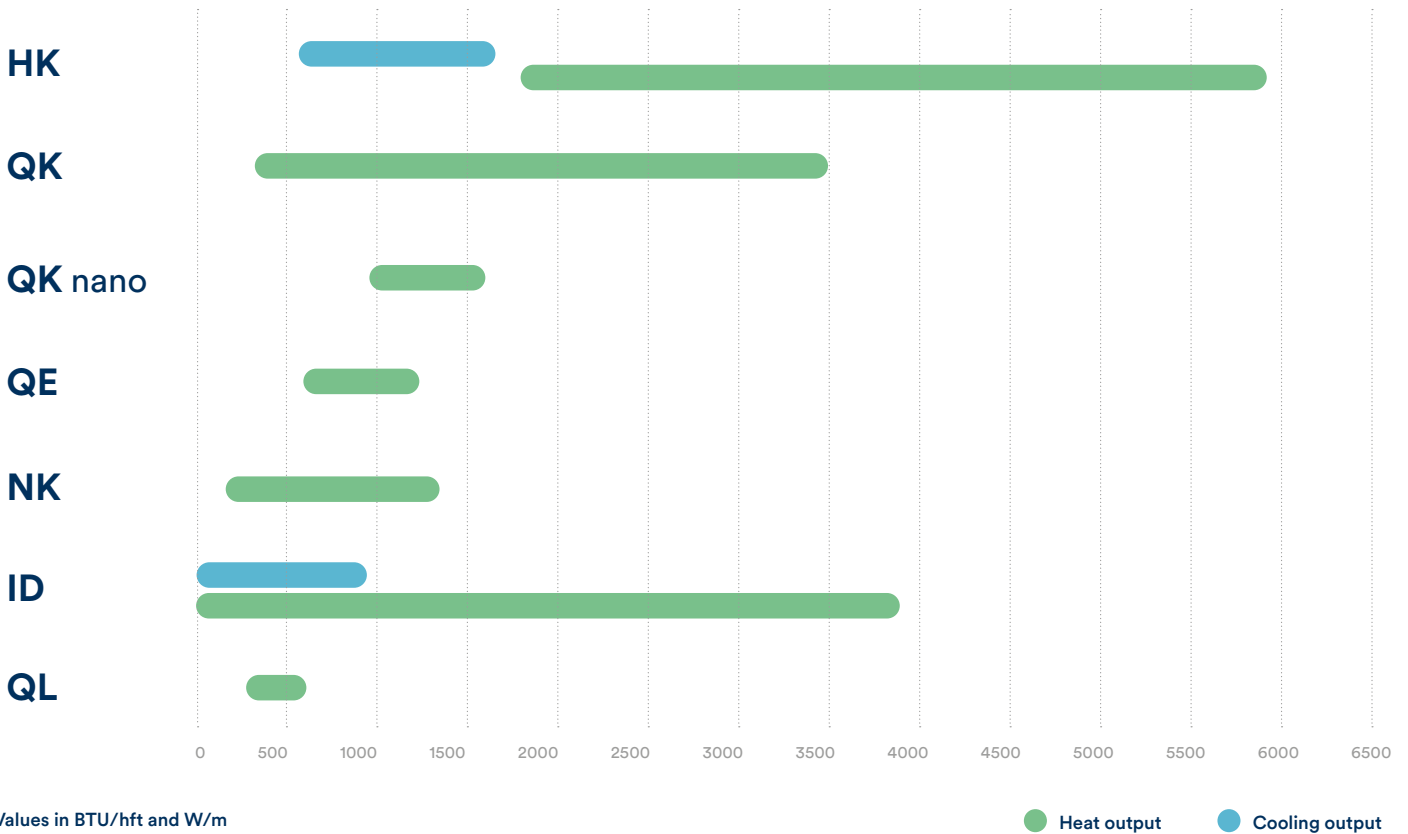
Kampmann Heating,
Cooling, Ventilation Ltd
Unit 207 1625 Dilworth Drive
Kelowna, BC
Canada V1Y 7V3

Tunstall Corporation
118 Exchange Street
Chicopee, MA 01013
United States



		Heating	Supply air	Cooling	Water-controlled convector	EC tangential fan	Electric heating element
HK 	I want to be able to heat and cool.	✓	✓	✓	✓	✓	×
QK 	I'm looking for low-temperature heating .	✓	✓	×	✓	✓	×
QK nano 	I don't have much space.	✓	×	×	✓	✓	×
QE 	I'm looking for electric heating.	✓	×	×	×	✓	✓
NK 	I want a heating system that doesn't have a fan .	✓	✓	×	✓	×	×
ID 	I want to use induction to feed in primary air.	✓	✓	✓	✓	×	×
QL 	I want to use displacement ventilation for heating.	✓	✓	×	✓	×	×

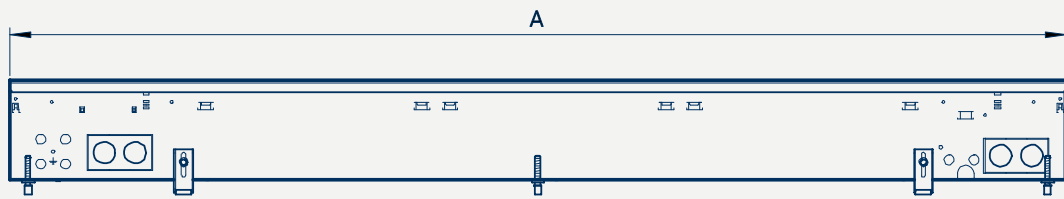
Heat and cooling outputs



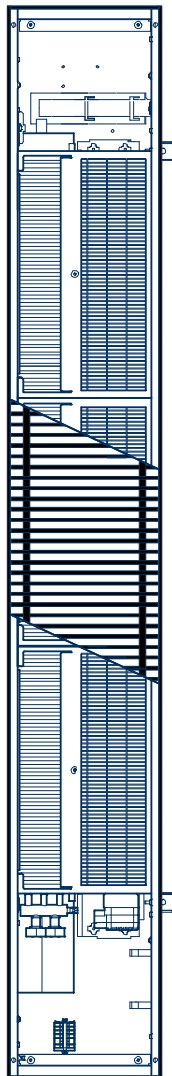
Fits every time.

		HK				QK		QK nano		NK		QE	QL		ID
Widths	mm	245	290	320	360	190	215	165		137	182 232 300 380	207	300	350	340
	inch	9.4	11.4	12.6	14.2	7.5	8.5	6.1		5.4	7.2 9.1 11.8 15.4	8.1	11.8	13.8	13.4
Lengths	mm	915 1200 1700 2000 2500 3000	950 1200 1700 2000 2500 3000	915 1200 1700 2000 2500 3000	950 1200 1700 2000 2500 3000	min. 780 max. 2960		min. 900 max. 2700		min. 800 max. 5000		825 1250 1700	700 1200 1700 2200 2700		800 1000 1200 1400 1600
	inch	36.0 47.2 66.9 78.7 98.4 118.1	37.4 47.2 66.9 78.7 98.4 118.1	36.0 47.2 66.9 78.7 98.4 118.1	37.4 47.2 53.1 72.8 100.4	min. 30.7 max. 116.5		min. 35.4 max. 106.3		min. 31.5 max. 196.9		36.4 49.2 66.9	27.6 47.2 66.9 86.6 106.3		35.4 39.4 47.2 55.1 63.0
Heights	mm	130	160	160	210	96		70		92 120 150 200	92 120 150 200	112	150	180	180 205
	inch	5.1	6.3	6.3	8.3	3.8		2.8		3.6 4.7	3.6 4.7 5.9 7.9	4.4	5.9	7.5	7.1 8.1

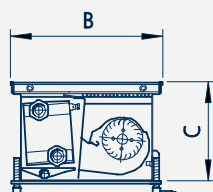
Front view



Top view
(without cover panel)



Cross-sectional view



HK

Trench heaters for heating or cooling.
EC cross-flow fan convection, whisper-quiet and energy-efficient.

Heating:
LPHW

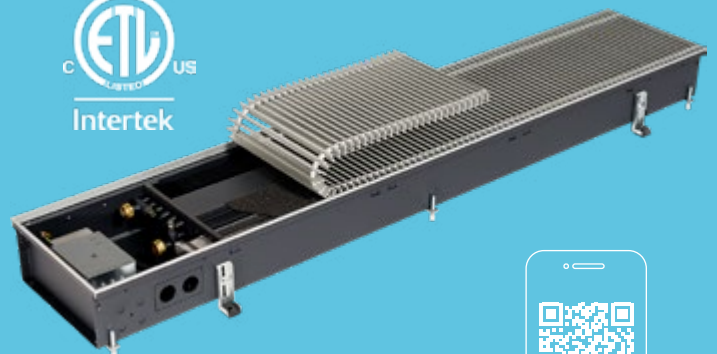
Cooling:
CHW

Ventilation: (optional)
Via supply air modules or supply air trenches

Whisper-quiet:
EC technology

Variations:
2-pipe / 4-pipe

Available with Condensate pump



Calculate your product online:
kampmann.ca > Products > Trench Technology



Dimensions

Width		Height		Length	
B		C		A	
[mm]	[in]	[mm]	[in]	[mm]	[in]
245	9.6	160	6.3	915	36
				1,200	47.2
				1,700	66.9
				2,000	78.7
				2,500	98.4
				3,000	118.1
290	11.4	160	6.3	950	37.4
				1,200	47.2
				1,700	66.9
				2,000	78.7
				2,500	98.4
				3,000	118.1
320	12.6	130	5.1	915	36
				1,200	47.2
				1,700	66.9
				2,000	78.7
				2,500	98.4
				3,000	118.1

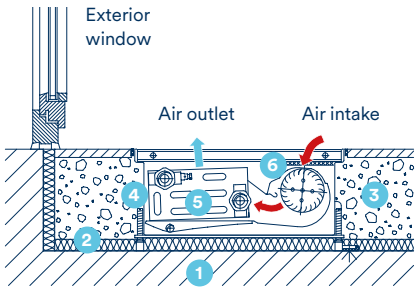
Heat and cooling outputs

	BTU/hft	W/m
Heating	1819 - 5976	1748 - 5739
Cooling	566 - 1676	543 - 1609

Installation options

HK 320

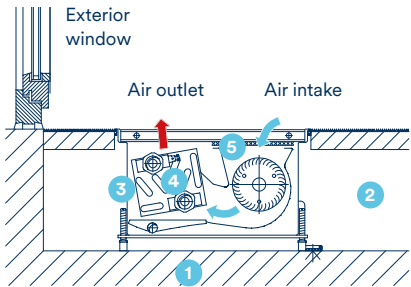
Installation in concrete



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

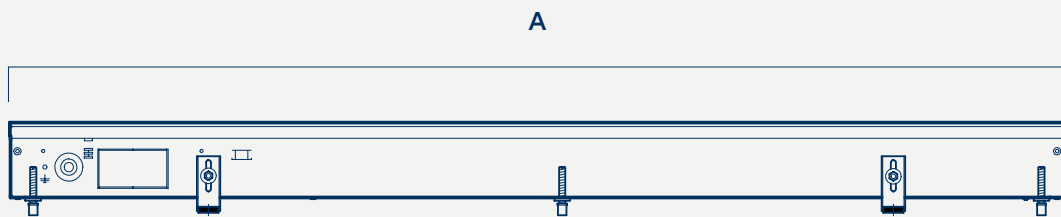
HK 290

Installation in a raised floor

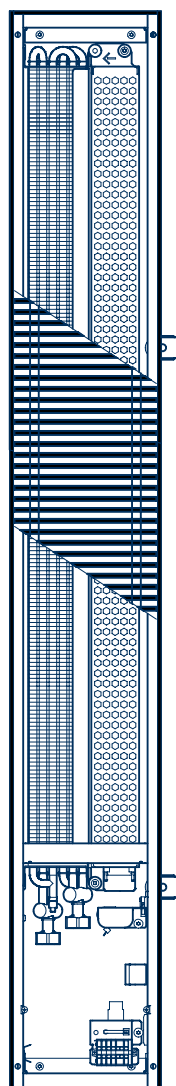


- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output convector
- 5 Filter (optional)

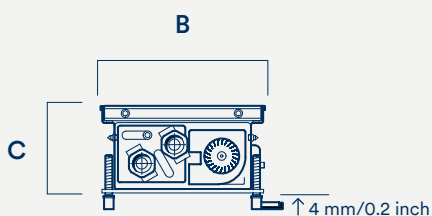
Front view



Top view
(without cover panel)



Cross-sectional view



QK

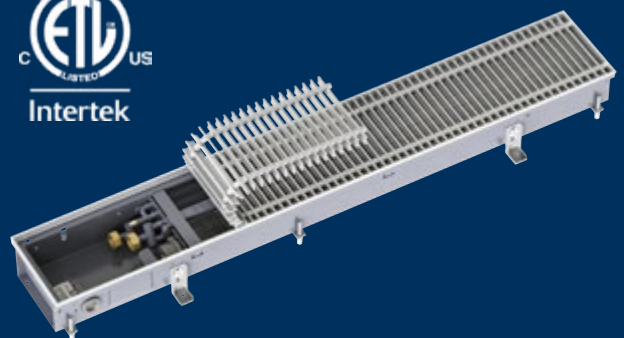
Trench heater with EC tangential fan convection.
For low-temperature heating.

Heating:
LPHW

Ventilation: (optional)
Via supply air modules

Whisper-quiet:
EC technology

Standard delivery with Same-end connections,
opposite-end connections available on request.



Calculate your product online:
kampmann.ca > Products > Trench Technology

Dimensions

Katherm	Trench width		Trench height		Trench length	
	B		C		A	
	[mm]	[in]	[mm]	[in]	[mm]	[in]
Katherm QK 190	190	7.5	96	3.8	780–2,960	30.7 - 116.5
Katherm QK 215	215	8.5				

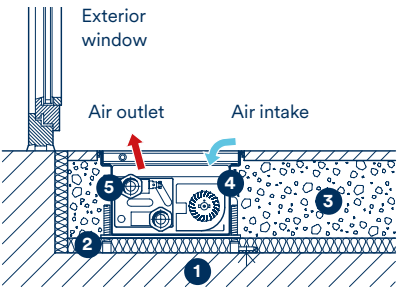
Heat and cooling outputs

	BTU/hft	W/m
Heating	290 - 3514	273 - 3378

Installation options

QK 190

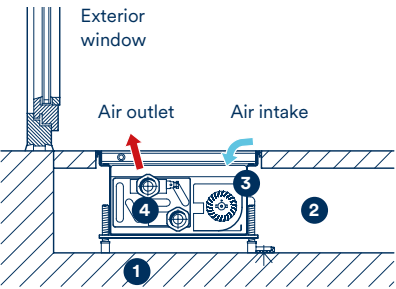
Installation in concrete, H = 96 mm, W = 190 mm
Installation in concrete, H = 3.8 inch, W = 7.5 inch



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

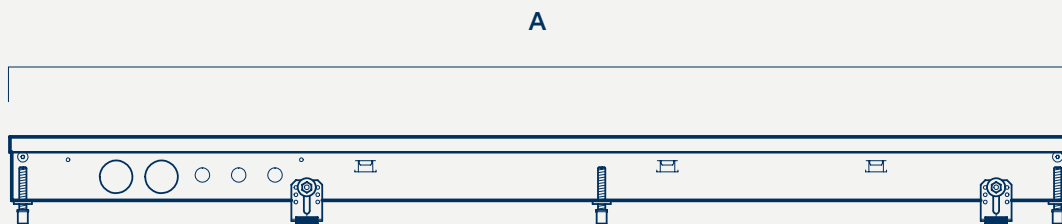
QK 215

Installation in a raised floor, H = 96 mm, W = 215 mm
Installation in a raised floor, H = 3.8 inch, W = 8.5 inch

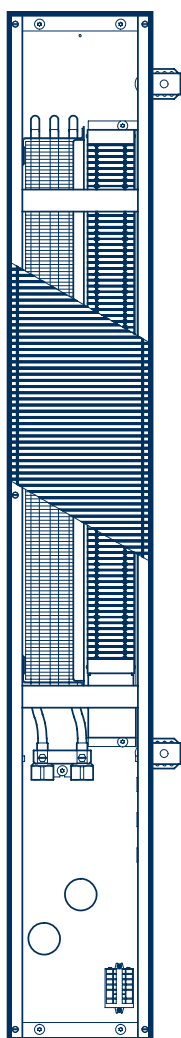


- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output convector

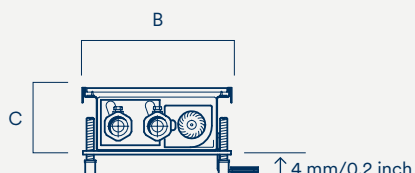
Front view



Top view
(without cover panel)



Cross-sectional view



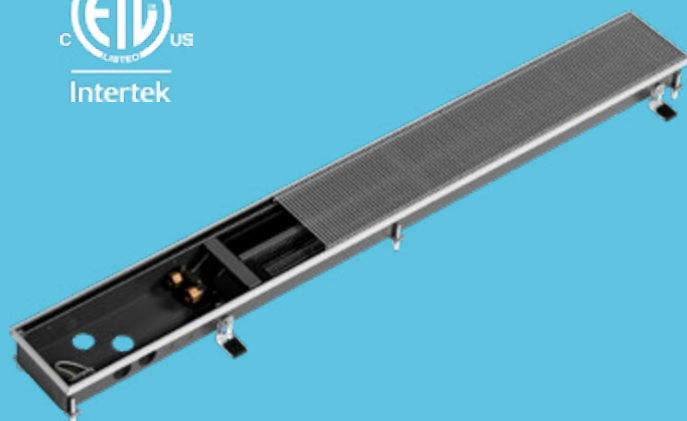
QK nano

Trench heater with EC tangential fan convection.
Nano format – top performance.

Heating:
LPHW

Whisper-quiet:
EC technology

Standard delivery with Same-end connections,
opposite-end connections available on request.



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Dimensions

Trench length		Trench width		Trench height		Finned convector length	
A		B		C			
[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
900	35.4	165	6.5	70	2.8	11.049	435
1,400	55.1					22.098	870
1,800	70.9					33.147	1,305
2,100	82.7					41.656	1,640
2,600	102.4					50.419	1,985

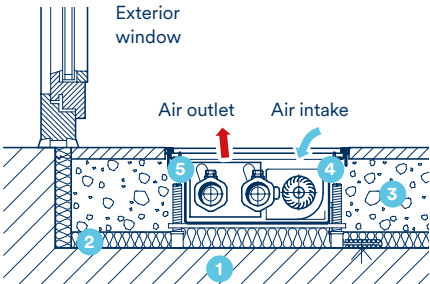
Heat and cooling outputs

	BTU/hft	W/m
Heating	992 - 1568	953 - 1506

Installation options

Installation in concrete

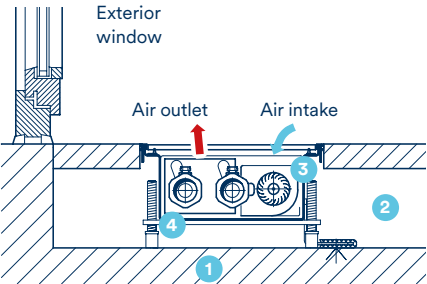
H = 70 mm, W = 165 mm
H = 2.8 inch, W = 6.5 inch



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

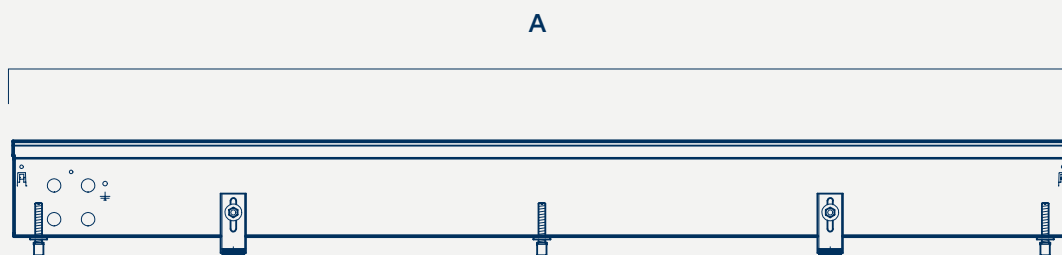
Installation in a raised floor

H = 70 mm, W = 165 mm
H = 2.8 inch, W = 6.5 inch

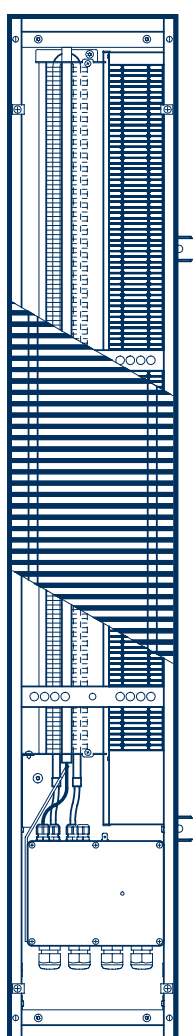


- 1 Concrete slab
- 2 Raised floor
- 3 EC tangential fan
- 4 High-output convector

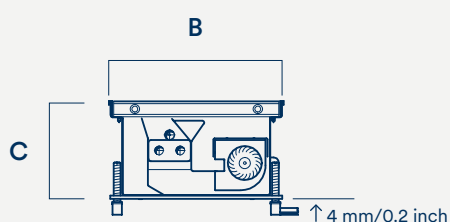
Front view



Top view
(without cover panel)



Cross-sectional view

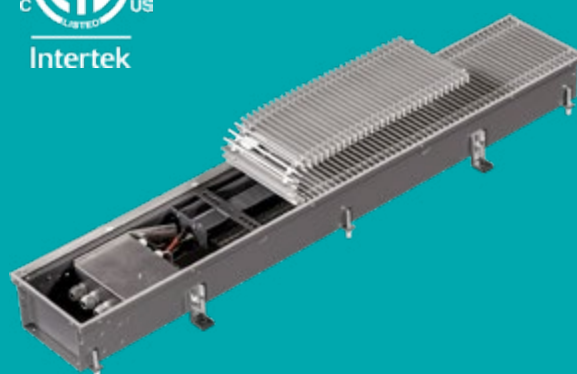


QE

**Tangential fan convection
with electric heating
element.**

Heating:
Electric heating element

Whisper-quiet:
EC technology



Calculate your product online:
kampmann.ca > Products > Trench
Technology



Dimensions

Width		Height		Heating element height/ Heating element depth		Length		Finned element length	
B		C				A			
[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
207	8,2	112	4,4	25 x 50	1 x 2	825	32.5	400	15.7
						1,250	49.2	835	32.87
						1,700	66.9	1,270	50

Heat and cooling outputs

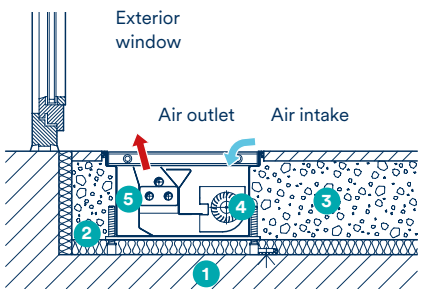
	BTU/hft	W/m
Heating	668 - 1224	800 - 1176

Installation options

Installation in concrete

H = 112 mm, W = 207 mm

H = 4.4 inch, W = 8.2 inch

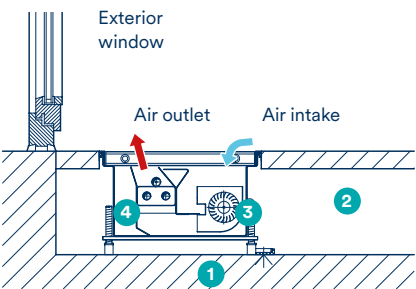


- 1 Concrete slab
- 2 Heat and sound insulation
- 3 Concrete
- 4 EC tangential fan
- 5 Electric heating element

Installation in a raised floor

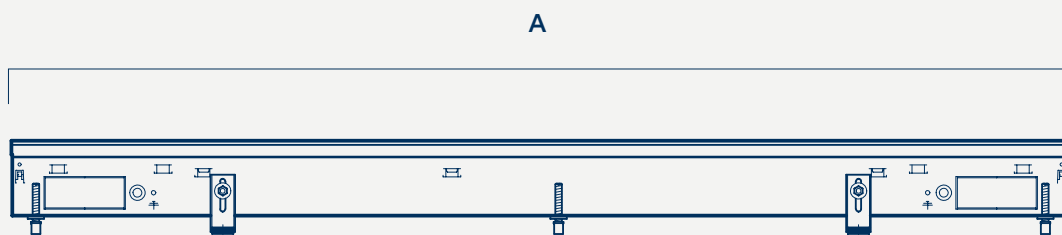
H = 112 mm, W = 207 mm

H = 4.4 inch, W = 8.2 inch

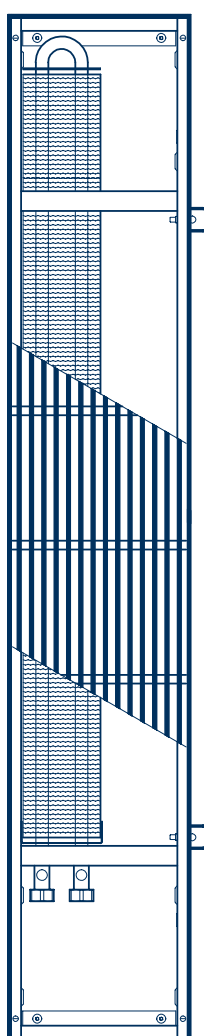


- 1 Concrete slab
- 2 Raised floor
- 3 EC tangential fan
- 4 Electric heating element

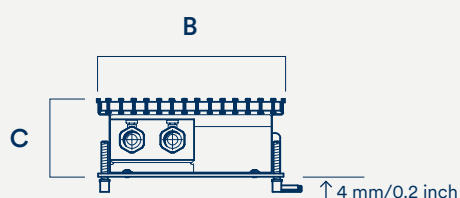
Front view



Top view
(without cover panel)



Cross-sectional view



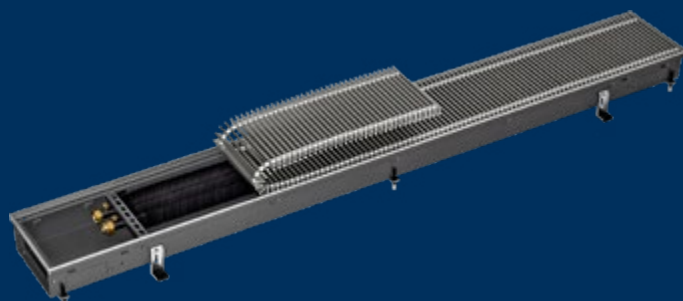
NK

Trench heater with natural convection and **no moving parts.**

Heating:
LPHW

Ventilation: (optional)
Via supply air modules

Standard delivery with Same-end connections,
opposite-end connections available on request.



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Dimensions

Type	Length		Width		Height	
	A		B		C	
	[mm]	[in]	[mm]	[in]	[mm]	[in]
NK 137	800–5,000	31.5 - 196.9	137	5.4	92	3.6
					120	4.7
NK 182	800–5,000	31.5 - 196.9	182	7.2	92	3.6
					120	4.7
					150	5.9
NK 232	800–5,000	31.5 - 196.9	232	9.1	200	7.9
					92	3.6
					120	4.7
NK 300	800–5,000	31.5 - 196.9	300	11.8	150	5.9
					200	7.9
					92	3.6
NK 380	800–5,000	31.5 - 196.9	380	15	120	4.7
					150	5.9
					200	7.9

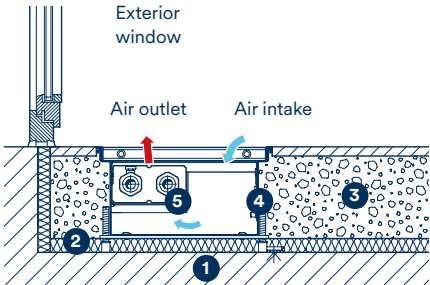
Heat and cooling outputs

	BTU/hft	W/m
Heating	121 - 1352	116 - 1298

Installation options

NK 232

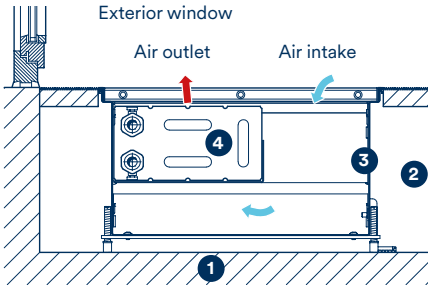
Installation in concrete



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

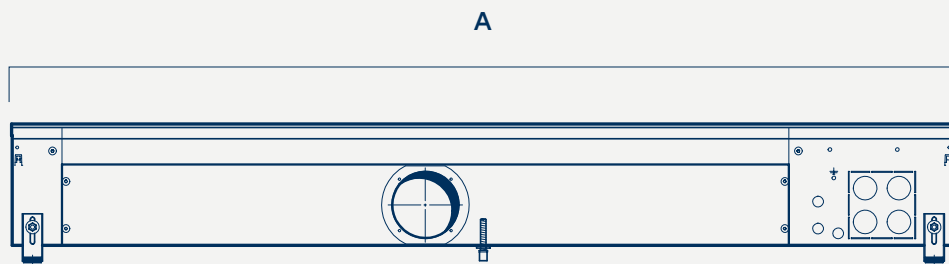
NK 380

Installation in a raised floor

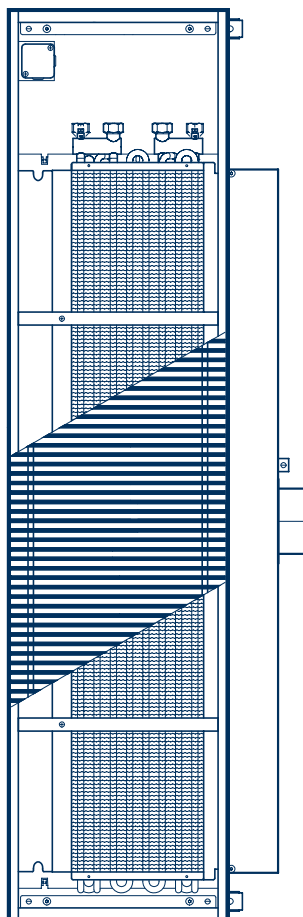


- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output convector

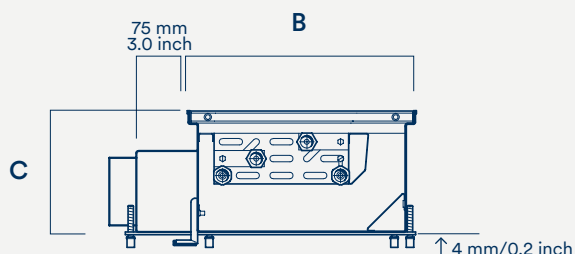
Front view



Top view
(without cover panel)



Cross-sectional view



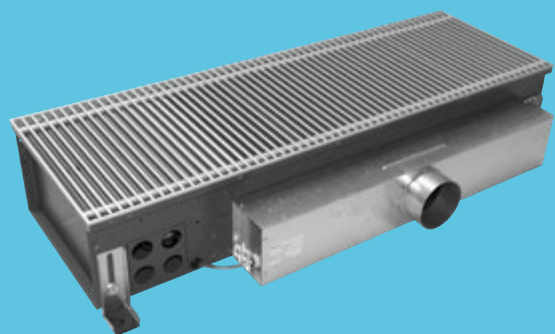
ID

Trench heater for heating and cooling based on the induction principle; without rotating parts and with conditioned supply air.

Heating:
LPHW

Cooling:
CHW

Ventilation:
Supply air is continuously fed into the room



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Dimensions

Width		Height		Length	
B		C		A	
[mm]	[in]	[mm]	[in]	[mm]	[in]
340	13.4	180	7.1	800	31.5
				1,000	39.4
				1,200	47.2
				1,400	55.1
				1,600	63.0
340	13.4	205	8.1	800	31.5
				1,000	39.4
				1,200	47.2
				1,400	55.1
				1,600	63.0

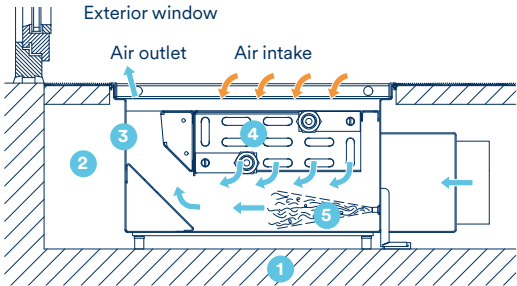
Heat and cooling outputs

	BTU/hft	W/m
Heating	0 - 3736	0 - 3588
Cooling	0 - 993	0 - 954

Installation options

ID 340 during cooling

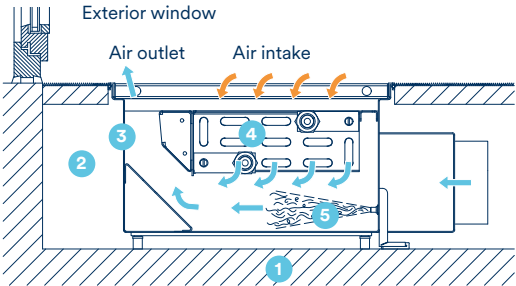
Installation in a raised floor



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

ID 340 during heating

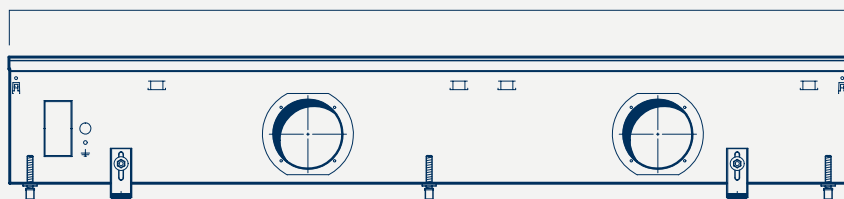
Installation in a raised floor



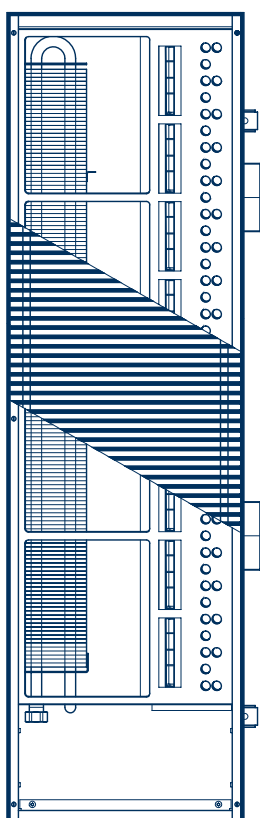
- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output convector
- 5 Induction nozzle

Front view

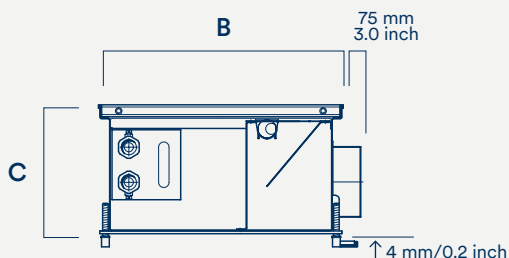
A



Top view
(without cover panel)



Cross-sectional view

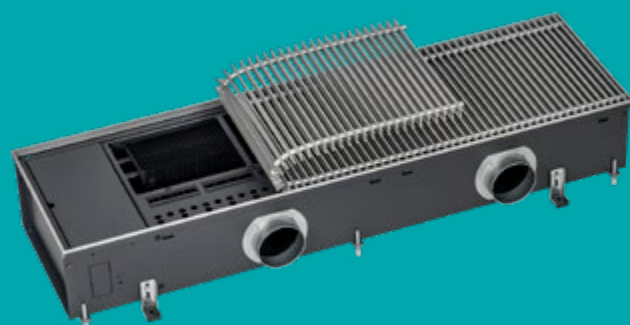


QL

The displacement ventilation system for draught-free, energy-saving displacement ventilation.

Heating:
LPHW

Ventilation:
Supply air is continuously fed into the room



Calculate your product online:
kampmann.ca > Products > Trench Technology



Dimensions

Type	Length		Width		Height	
	A		B		C	
	[mm]	[in]	[mm]	[in]	[mm]	[in]
QL 300	700	27.6	300	11.8	150	5.9
	1200	47.2				
	1700	66.9				
	2200	86.6			180	7.1
	2700	106.3				
QL 350	700	27.6	350	13.8	150	5.9
	1200	47.2				
	1700	66.9				
	2200	86.6			180	7.1
	2700	106.3				

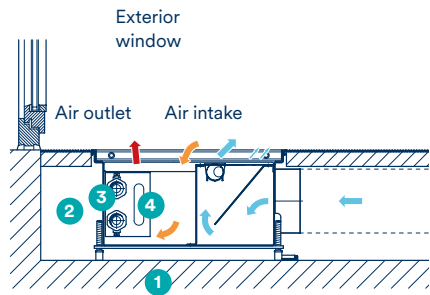
Heat and cooling outputs

	BTU/hft	W/m
Heating	226 - 533	217 - 512

Installation options

QL 300

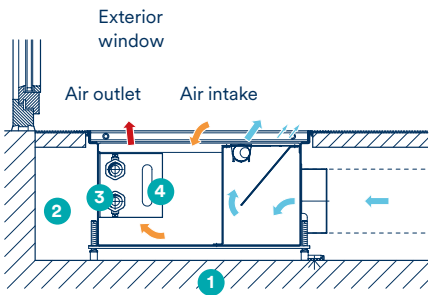
Installation in a raised floor



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

QL 350

Installation in a raised floor



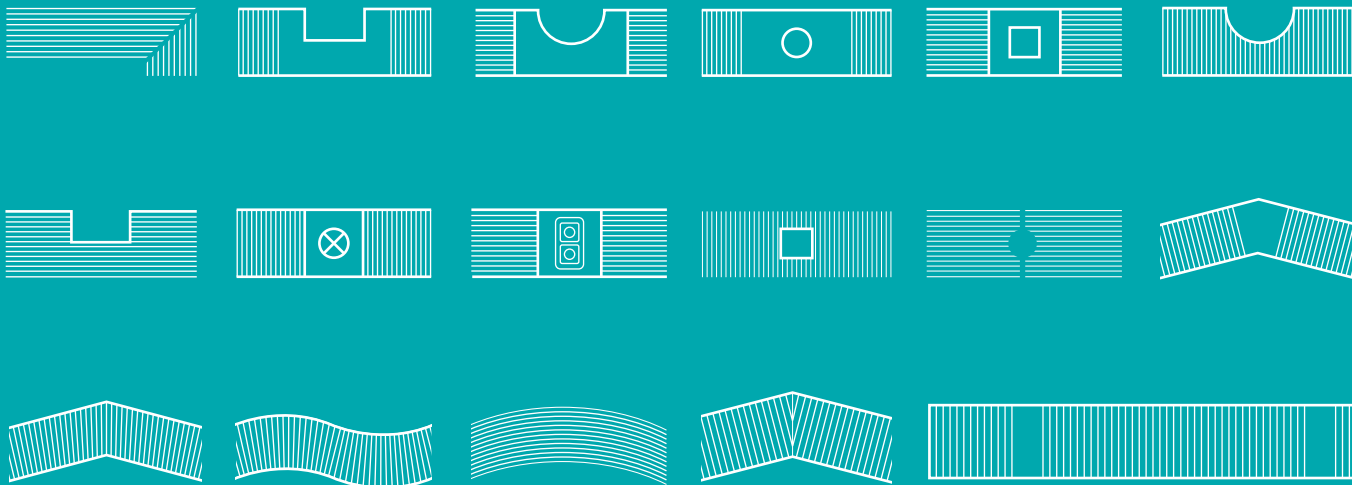
- 1 Concrete slab
- 2 Raised floor
- 3 Floor trench
- 4 High-output convector

**For more
flexible
room design
options**

A range of designs

Most projects require designs to be adapted and tailored to suit their specific needs.

That's why Katherm trench heaters are available in all kinds of shapes, incorporating mitred corners, curved sections, column cut-outs, or angles. Moreover all units can also be semi-recessed or above-floor mounted. More options on request.



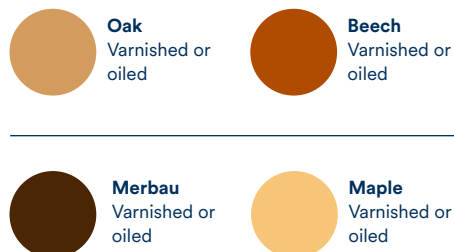
Materials and colours

Choose aluminium grilles in a range of anodized colours or wooden grilles with a variety of finishes. Alternatively, maybe a polished stainless steel grille is just what you're looking for?

OPTILINE



WOOD



Control accessories

Everything under control around the clock

Our electromechanical control accessories



Room temperature control 146928

For external installation outside the trench heater

- > operating voltage: 24 V AC/DC / 50 Hz
- > 2 output signals: 0-10 V max. 5 mA
- > protection class: IP 30
- > control range: 5-30 degrees C
- > room temperature sensor: Internal NTC



Siemens RDG160TU T-stat

Room thermostat

Operation and control for trench heaters and fan coils in 2- or 4-pipe operation.

- > 7-day program with 8 programmable timers to switch over between Comfort and Economy modes
- > Select from various control strategies including Comfort, Energy Saving, or Freeze Protection.
- > Backlit display with intuitive layout simplifies user interaction during commissioning and daily operation.



Power supply unit

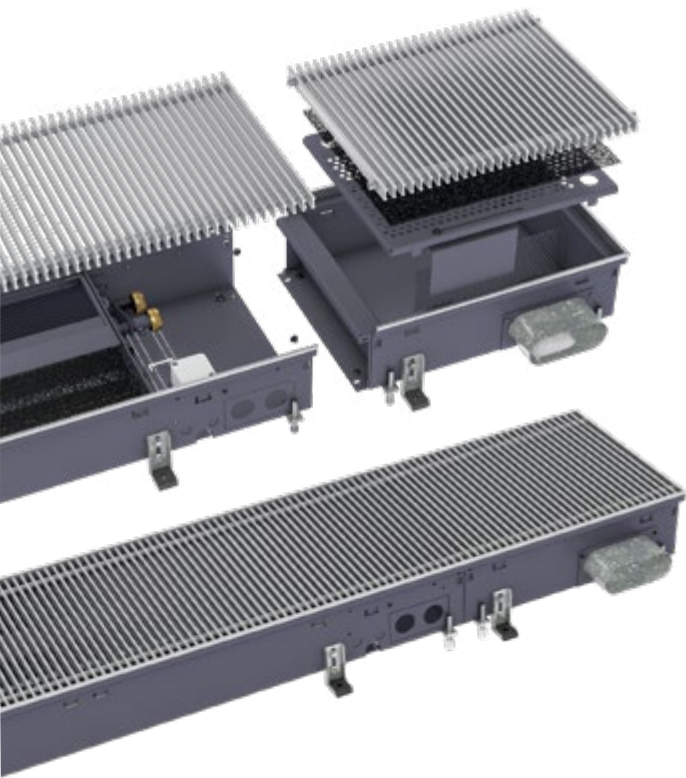
For external installation outside the trench heater

- > 36 / 60 / 100 W
- > On DIN rail
- > Protection class II

Supply air models

**For maximum
space savings
and comfort**

The perfect addition

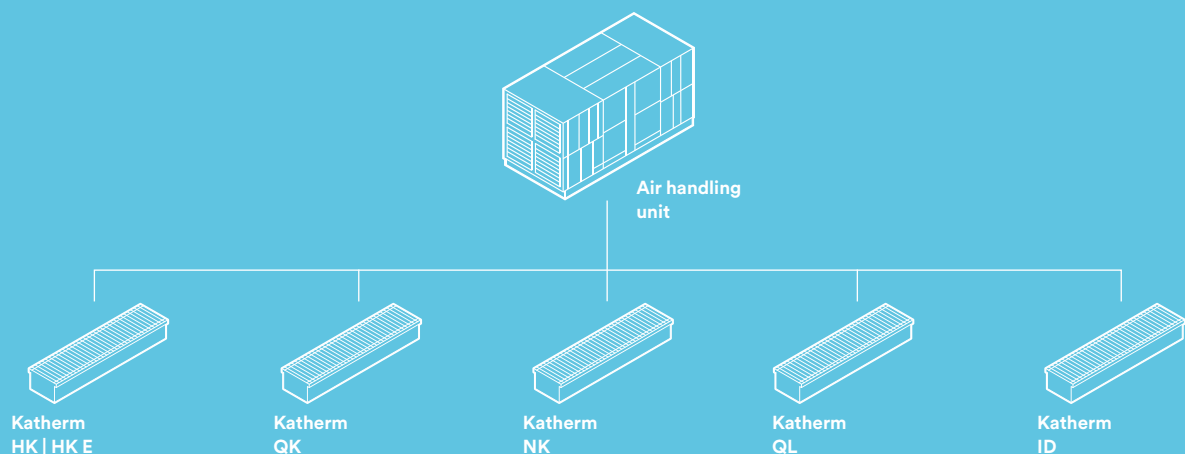


The Katherm supply air trench is available for all trench heaters (in the Katherm range). Measuring 400 mm in length, it can be fitted to any Katherm unit design. Conditioned supply air can also be fed into rooms through the Katherm ZL supply air trench, with a range of spigot sizes and designs available to suit various trench dimensions (see the technical catalogues provided for each of the Katherm trench heaters). It is possible to regulate the air volume flow on site by means of slider elements built into the supply air trenches.

Benefits

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

Real team players



Almost all Katherm trench heaters 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. This minimizes the amount of space required and maximizes comfort in the building. At the same time, the central

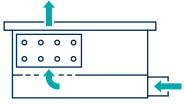
air handling unit's efficient heat recovery feature saves energy.

Supply air models

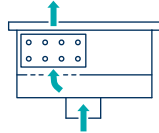
Katherm NK

Featuring natural convection and performance-boosting convection with conditioned supply air.

With supply air spigot below

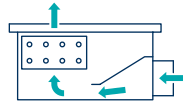


With air guidance through the convector.

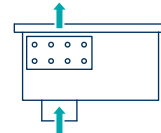


With air guidance through the convector and perforated plate underneath the convector.

With side supply air spigots



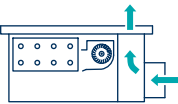
With air guidance through the convector.



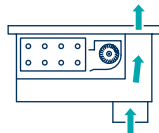
With air guidance through the convector and perforated plate underneath the convector.

Katherm QK

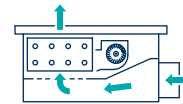
With fan-assisted convection and supply air.



With air guidance through a separate discharge duct.



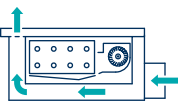
With air guidance through a separate discharge duct.



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

Katherm HK | HK E

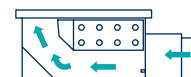
For heating and cooling with supply air separate from the air flow from the fan.



With air guidance through separate supply air modules.

Katherm ID

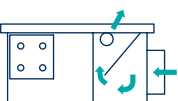
For heating and cooling with supply air and without a fan.



With supply air guidance underneath the convector. Secondary air is carried along via the convector.

Katherm QL

With natural convection and displacement ventilation, even for heating.

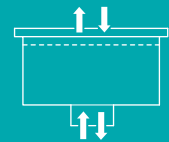
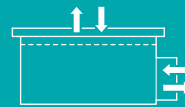


With separate supply air guidance for natural convection, even for heating (displacement ventilation).



Something for everyone

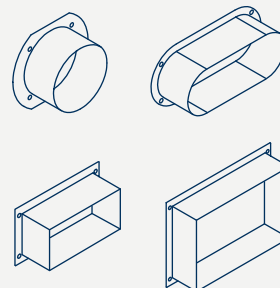
Think the trench dimensions you're looking for aren't feasible? Think again!



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

Always suitable

Dimensions for supply air models



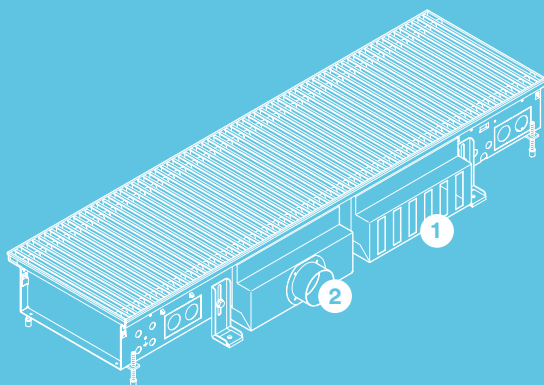
Dimensions	Max. air volume/duct collar
	[CFM]
2" dia.	12
2.5" dia.	20
3" dia.	32
4" dia.	50
5" dia.	78
6" dia.	112
2" x 5"	37
2" x 4"	22
4" x 6"	95

It's your choice

Pressurized floors for an alternative supply air method

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

- 1 Supply air box for pressurized floor
- 2 Supply air box with DN 80 spigot

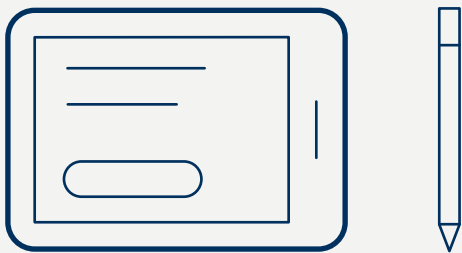


Service

We're always here to help!

Wherever you are, we're there for you. We offer a range of tools to assist you during the planning process, from smart apps and calculation programs to BIM data and CAD drawings.

Design



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

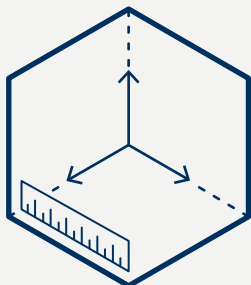
BIM data sets



Make the most of the BIM data sets that Kampmann provides for Katherm trench heaters and ensure that your planning runs as smoothly as possible.

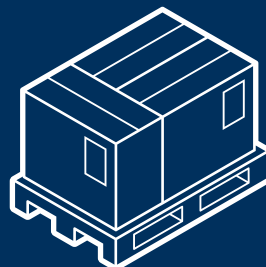
The sets contain unit dimensions, technical measurements for water and electrical connections, plus performance data.

Site measurements



To prevent inaccuracies, our technicians perform site measurements using 2D lasers – ensuring precise and efficient dimensioning.

Delivery



Kampmann products are delivered sorted on pallets to site. The products are packaged with position labels so that they can be allocated on site to the correct floors and installation locations.

Consultation



As well as providing comprehensive advice and design assistance for building services systems, we can also give you exactly the documentation you need for any project.

kampmann.ca/service











