Product Overview

Genau
mein
Klima.

KAMPMANN

Our cover building:

Concept Laser, Lichtenfels (DE)

Concept Laser, which is part of GE Additive, prints wth metal. The company, which was founded in 2000, is thus pioneering in the field of powder-bed-based laser melting of metals. Alongside the massive production building, a state-of-the-art administration building of 20,000 square metres has also been created, which is home to a restaurant, auditorium, laboratories and showroom, in addition to open-plan offices. Concept Laser procured the air conditioning units for the building from Kampmann.

First and foremost, they fitted special width Katherm QK trench technology. The arrow-shaped, largely glazed administration building is the ideal place for the Katherm unit with its whisper-quiet EC tangential fan. The unit can be customised to requirements: mitred corners, curved units, column cut-outs, chamfered ends – all shapes are possible.

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Our product groups
at a glance.

Everything is
under control
with Kampmann.

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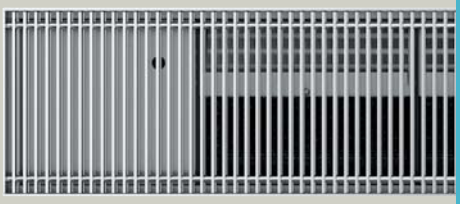
Trench technology



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KAMPMANN

The Kampmann Group: unique solutions expertise for the best air conditioning systems.

With over 1000 employees at 16 sites around the world, Kampmann is one of the major players in the construction and building services sector.

The Kampmann and NOVA brands offer solutions expertise and a unique broad-based product range under this umbrella brand.

Our systems for heating, cooling and ventilation are at the forefront of different market segments today.

KAMPMANN

1000 +

employees working for you at the Kampmann Group.

21,893

variants of our products in our Katherm standard range alone.

International sites

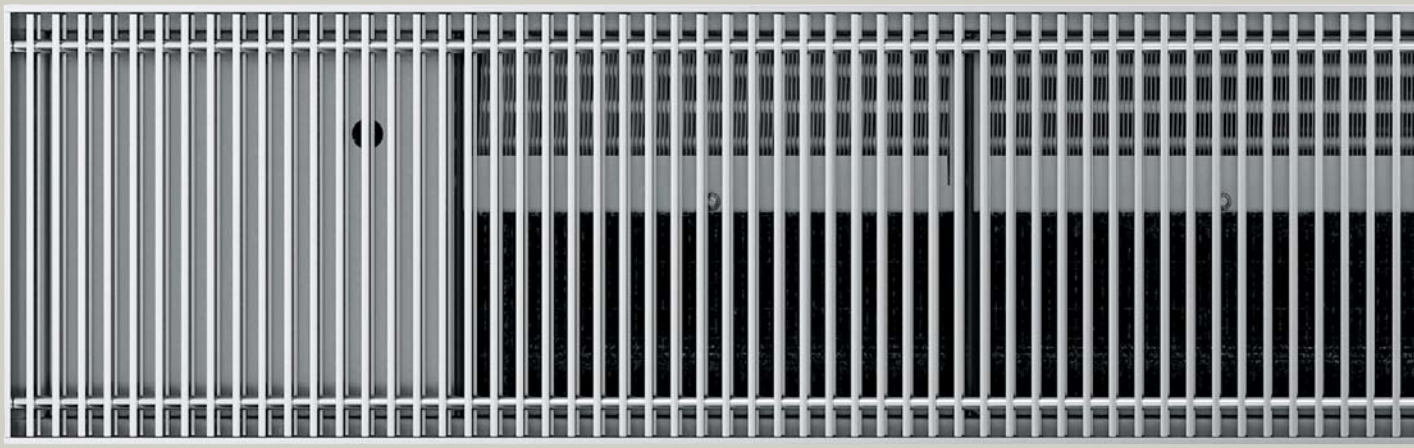
Headquarters
Kampmann GmbH & Co. KG
Lingen (Ems)
Germany

- Canada/USA
- France
- Italy
- Netherlands
- Austria
- Poland
- Switzerland
- Great Britain

01 Trench technology

The trend for large glazed façades and floor-to-ceiling windows continues unabated. Trench technology is the right choice for comfortable air conditioning that does not impede the view outside and effectively screens cold air.

+ large range from simple natural convection models to high-end units that provide heating, cooling and ventilation
+ low-temperature systems with EC fan assistance
+ fast-responsive heating and cooling with optimised air flow for comfortable air conditioning
+ future-proof cooling systems created in conjunction with chillers that use minimal refrigerant.
+ primary air supply with models for displacement ventilation, with supply air modules for mixed ventilation or as induction units
+ end-to-end project support from the initial idea, site measurement, unit design and mouldings to floor-based delivery and installation

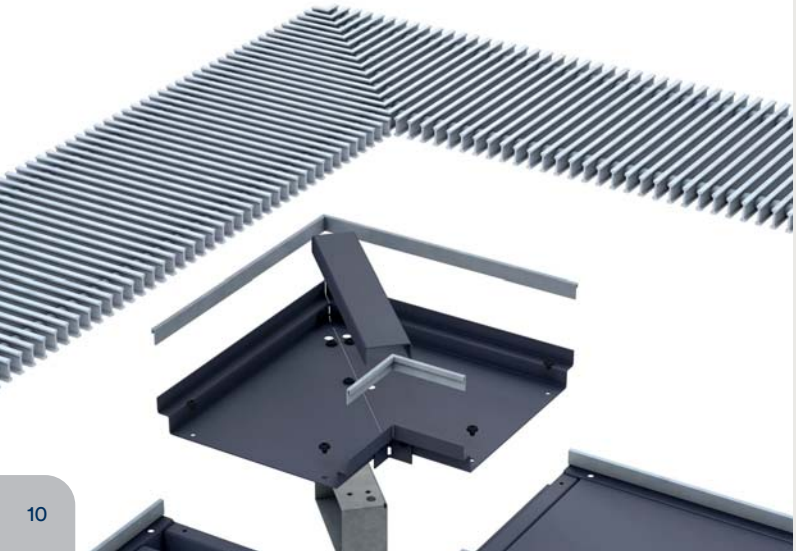


10,941 Katherm variants: market leader, thanks to infinite opportunities.

How did we become the market leader in trench technology? It is down to our **wide range of standard variants and also our willingness to deviate from them**. This provides our partners with the perfect combination of tried-and-test design and custom project solutions. Resulting in success for everyone. With you too?

Modular system

Individual **connecting modules between the Kampmann trench systems** create an overall aesthetic look without disruptive interruptions. Don't let architectural challenges hold you back.



2-pipe with 4-pipe comfort

Katherm HK E

Either all-heating or all-cooling. That's 2-pipe systems for you. Or is it? **Katherm HK E units enable individual rooms to use an electric heating function when the rest of the building is being cooled**. Massively enhancing comfort. And the material and installation savings compared to 4-pipe systems are huge.

You can now reduce CO_2 emissions along the value chain that will have a positive impact on the carbon footprint of the building. And even more so if you use more green power.

Materials and colours

Oak * | Merbau * | Beech * | Maple *

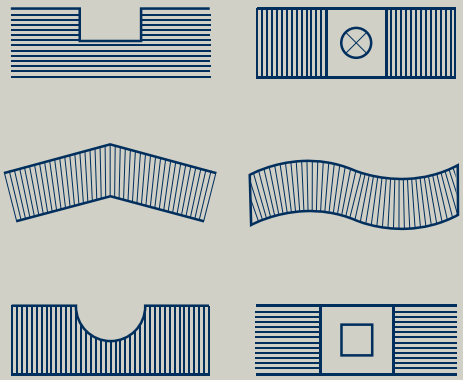
* Lacquered or oiled. Wooden grilles cannot be used for Katherm QE, QK nano, QL and ID units.

Aluminium natural anodised | Aluminium painted DB703 basalt grey | Aluminium bronze anodised | Aluminium black anodised

Aluminium bronze finish | Stainless steel polished | Stainless steel natural | Brass natural

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

Diverse shapes

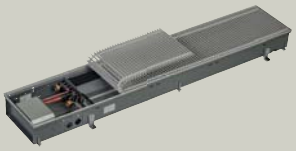
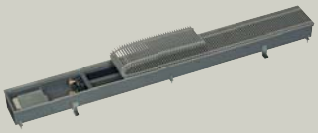
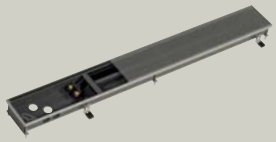
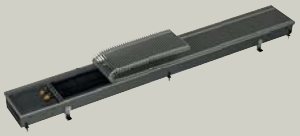
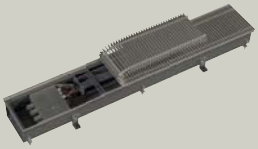
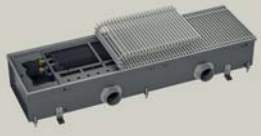
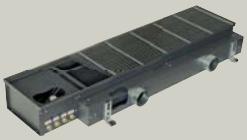


Adaptations and special designs are normal in projects. Katherm trench technology can therefore be supplied for all geometries, incorporating **mitred corners, curved sections, column cut-outs or angles**.

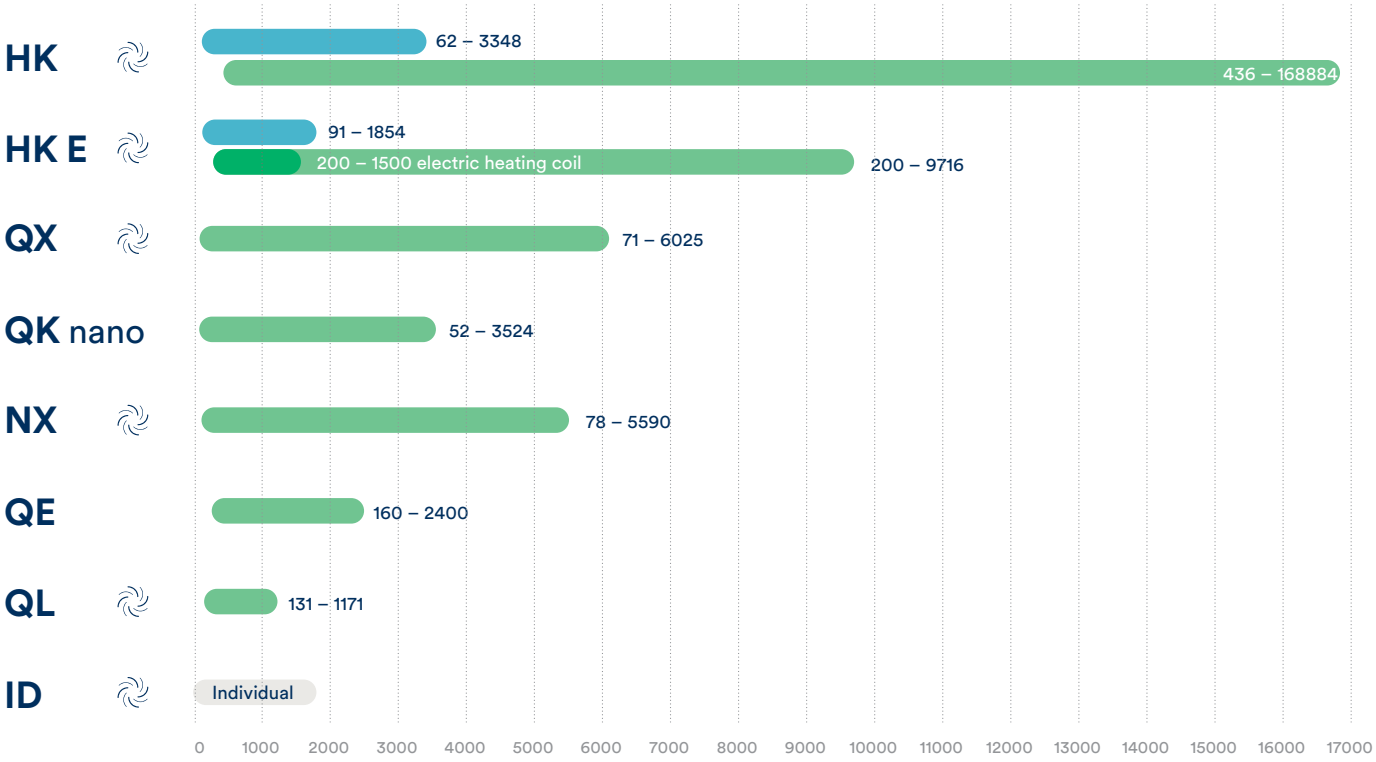
Low temperature

Trench technology has traditionally been used under floor-to-ceiling glazing. **High-quality convectors and fan assistance have advanced them into the low-temperature era.** They are also very efficient thanks to EC tangential fans.

Our trench technology at a glance

	Heating	Supply air	Cooling	Water-based coil	EC tangential fan	Electric heating coil
 **Katherm HK** > simple to clean in accordance with VDI 6022 > heat outputs tested independently in accordance with DIN EN 16430 > EC fan - efficient in terms of noise and energy	✓	✓	✓	✓	✓	✗
 **Katherm HK E** > additional electric heating coil > variable heating and cooling in a 2-pipe system > sustainable material savings compared to 4-pipe systems	✓	✓	✓	✓	✓	✓
 **Katherm QK** > whisper-quiet EC technology > optimised for low water temperature, heat outputs tested independently in accordance with DIN EN 16430 > shallow unit depths combined with high outputs	✓	✓	✗	✓	✓	✗
 **Katherm QK nano** > extremely low overall height > usual quietness and high performance > delicate FineLine grille	✓	✗	✗	✓	✓	✗
 **Katherm NK** > compact, performance-optimised > heat outputs tested independently in accordance with DIN EN 16430 > shallow unit depths combined with high outputs	✓	✓	✗	✓	✗	✗
 **Katherm QE** > fast heating-up of the room > high heat output combined with low sound levels > minimum trench width and trench height for unobtrusive integration within a room	✓	✗	✗	✗	✓	✓
 **Katherm QL** > evenly supplies rooms with prepared fresh air and heat > low-turbulence room ventilation for a pleasant indoor climate without draughts	✓	✓	✗	✓	✗	✗
 **Katherm ID** > extremely silent by means of flow-optimised nozzles > nozzles can be replaced in operation to adjust output > supply air with post-cooling/heating by induction	✓	✓	✓	✓	✗	✗

Heat and cooling outputs



Always fits.

		Widths	Lengths
HK		245 290 320 360	915 | 1200 | 1700 | 2000 | 2500 | 3000 950 | 1200 | 1700 | 2000 | 2500 | 3000 915 | 1200 | 1700 | 2000 | 2500 | 3000 950 | 1200 | 1350 | 1850 | 2250
HK E		320	915 | 1200 | 1700 | 2000 | 2500 | 3000
QX		190 | 215	min. 1000 max. 3200
QX nano		165	min. 900 max. 2700
NX		137 | 182 | 232 300 | 380	min. 800 max. 5000
QE		207	825 | 1250 | 1700
QL		300 | 350	700 | 1200 | 1700 | 2200 | 2700
ID		340	800 | 1000 | 1200 | 1400 | 1600

Dimensions in mm

Your extended workbench

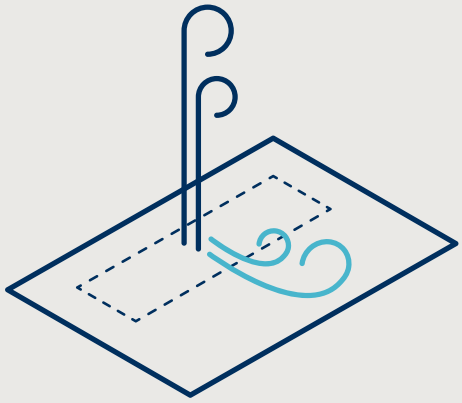
Our project department will work tirelessly for you.

When using trench technology, you also want to make the most of all the benefits of these systems. This can be a complex matter but is worth doing. All the more so as our project department is there fore you. That way we'll get the most out of the units for you. **Often this means using a range of different Katherm models to provide different functions.** Let us design a system for your project, incorporating modules with mitred corners, recesses for cladding components or columns.

We'll also perfectly manage the logistics to get the systems to site and on site. The precise planned position of each unit is clearly printed on all packages. And it goes without saying that we also pack all units floor by floor. All cleverly worked out to let you concentrate on your job.

From a reliable source

Katherm QL



Two air flows emanate from this source. **Heated air rises up the glazed façade; fresh displacement air then enters the room at a low pulse to ensure complete comfort in the room.**

Room automation

Why not offer it?

Are you designing the air conditioning units but handing over their automation to someone else? Why?
Three very good reasons why you need to change that.

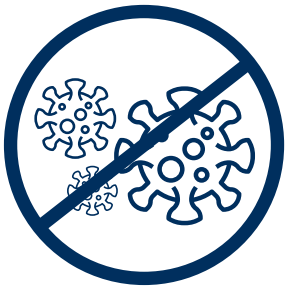
1. Offer our simple **KaControl** system together with the units.
   This will allow the operator to intuitively operate all the parameters that affect the room climate.

2. We can handle it. Your KaControl-system will be **configured precisely to your individual project**.

3. Do you plan to outsource the provision of a complex building automation system? Now you can extend your offering by equipping the Katherm units with our interface cards. The bottom line is that you will be saving your customer money.

Hygienic

Katherm HK



It's unique! **Katherm HK is one of the few trench heaters on the market to include a well-thought-out cleaning concept.**

The Katherm HK is hygienically flawless, thanks to improved condensate discharge in cooling mode, coupled with the ease of cleaning of the condensate tray.

BIM data

Use the BIM data sets for Kampmann Katherm trench technology for seamless planning processes.

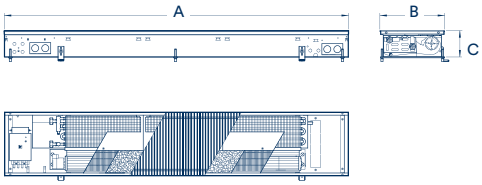
They include all unit dimensions**, technical water and electrical connection dimensions** and performance data.

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. The dimensions will then be automatically handed over to our project department.

It's your choice

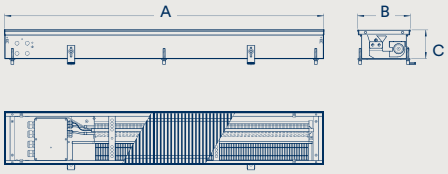
Katherm HK | Katherm HK E



Width	Height	Length	2-pipe		2-pipe electric heating coil			4-pipe	
B	C	A	Heat output LPHW [1]	Cooling output [2]	Electric heat output [3]	Heat output LPHW [1]	Cooling output [2]	Heat output LPHW [1]	Cooling output [2]
[mm]	[mm]	[mm]	[W]	[W]	[W]	[W]	[W]	[W]	[W]
320	130	915	971 – 2373	108 – 332	200 – 500	942 – 1960	91 – 274	436 – 1085	105 – 321
320	130	1200	1485 – 3438	157 – 537	400 – 1000	1659 – 3248	153 – 517	726 – 1809	153 – 517
320	130	1700	1696 – 5232	223 – 964	400 – 1000	1980 – 4933	214 – 927	1307 – 3256	214 – 927
320	130	2000	1884 – 5814	247 – 1071	400 – 1000	2200 – 5481	238 – 1030	1452 – 3618	238 – 1030
320	130	2500	2155 – 7866	324 – 1500	600 – 1500	3080 – 7673	333 – 1442	2033 – 5065	333 – 1442
320	130	3000	2884 – 10310	430 – 1928	600 – 1500	3484 – 9716	411 – 1854	2614 – 6512	411 – 1854
245	160	915	637 – 1452	66 – 251				462 – 1053	62 – 237
245	160	1200	1061 – 2420	110 – 419				770 – 1755	103 – 394
245	160	1700	1910 – 4355	198 – 754				1385 – 3158	186 – 710
245	160	2000	2123 – 4839	220 – 837	–	–	–	1539 – 3509	207 – 789
245	160	2500	2972 – 6775	308 – 1172				2155 – 4913	290 – 1104
245	160	3000	3821 – 8710	395 – 1507				2771 – 6316	372 – 1420
290	160	950	1057 – 3286	114 – 486				514 – 1639	112 – 476
290	160	1200	1599 – 4851	165 – 801				852 – 2718	162 – 785
290	160	1700	1657 – 7262	212 – 1284				1366 – 4357	207 – 1258
290	160	2000	2149 – 9420	275 – 1665	–	–	–	1771 – 5652	269 – 1632
290	160	2500	2283 – 12055	333 – 2148				2285 – 7291	347 – 2105
290	160	3000	3085 – 15715	444 – 2783				2961 – 9448	435 – 2728
360	210	950	1223 – 4645	120 – 818				643 – 2982	114 – 771
360	210	1200	1933 – 7152	185 – 1352				1066 – 4944	176 – 1273
360	210	1350	2332 – 8667	222 – 1674	–	–	–	1320 – 6121	211 – 1576
360	210	1850	2708 – 12555	281 – 2489				1964 – 9104	264 – 2344
360	210	2250	3642 – 16884	377 – 3348				2641 – 12243	356 – 3153

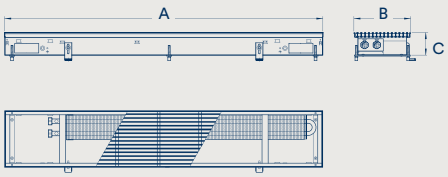
[1] at LPHW 75/65 °C, t_{L1} = 20°C, with fan-assisted convection
[2] at CHW 16/18 °C, t_{L1} = 27 °C, 48% relative humidity with fan-assisted convection
[3] when operated with an electric heating coil

Katherm QE



Width B	Height C	Length A	Max. heat output
[mm]	[mm]	[mm]	[W]
207	112	825	160 – 800
207	112	1250	320 – 1600
207	112	1700	480 – 2400

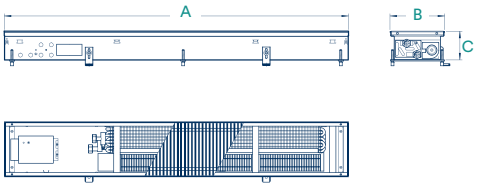
Katherm NK



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

[1] at LPHW 75 / 65 °C, t_{L1} = 20 °C

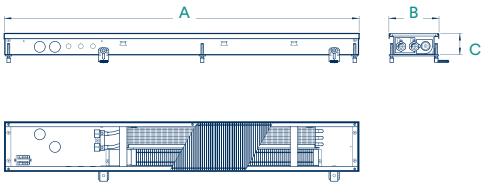
Katherm QK



Width B	Height C	Length A	Heat output [1]
[mm]	[mm]	[mm]	[W]
190	112	1000 – 3200	71 – 5781
215	112	1000 – 3200	87 – 6025

[1] at LPHW 75/65 °C, t_{L1} = 20 °C, with a 12 mm grille spacing, free cross-section approx. 70 %

Katherm QK nano



Width B	Height C	Length A		Heat output [1]
		KaControl electromechanical 230 V	Control electromechanical 24 V	
[mm]	[mm]	[mm]	[mm]	[W]
165	70	1100	900	52 – 772
165	70	1600	1400	104 – 1545
165	70	2000	1800	156 – 2317
165	70	2300	2100	196 – 2912
165	70	2700	2600	238 – 3524

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

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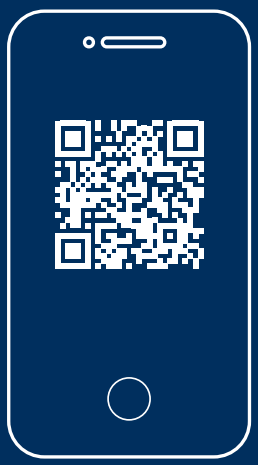
kampmanngroup.com > Products > Trench Technology



02
Unit heaters

Suitable for use as wall- or ceiling-mounted units for heating, cooling or ventilation in high-ceilinged buildings, industrial buildings, showrooms etc. – as recirculating air, mixed air or primary air units.

+ proven classics, always up to date. Kampmann unit heaters set the standard and are continuously being further developed
+ future-proof EC technology for energy-efficient and ERP-compliant operation
+ from industrial uses to occupied zones. Sturdy steel housings to design units
+ on-board control: EC technology includes control electronics for simple and convenient control
+ heating and cooling with one unit – whether in simple industrial applications or as a comfort system in retail stores and high-end large spaces
+ unit heaters as a component of hybrid ventilation systems: central ventilation, local temperature control

Our number one The TOP

Our unit heater with the simple name – "TOP" – has been at the forefront of the market for over 30 years.

How do we do it? We don't rest on our laurels! Simply the ongoing development of our Number One and all other unit heaters ensures that we always remain TOP in terms of output, energy efficiency and control comfort. And our design and trade partners do too.

Any time, any place

Good advice in the massive unit heater universe.
Always a perfect fit. Always Kampmann.
As the market leader, we supply a very wide range of units in this sector. The right unit for every space, the right design for every application.
You can rely on us: only one technology and only one partner for the perfect scheme.

When the summer warmth arrives

TOP C

Introduce cool air into your hall on hot days with the TOP C. **When your client asks for hall heating, offer cooling as an option.** Up to now only supplied as a project solution, this heating and cooling all-rounder is set to become a standard product.

Simple, efficient, cost-effective

TIP

The little brother of the TOP unit heater is ideal for heating halls and workshops on simpler projects. **Unbeatable in terms of value for money**, it controls efficiently coupled with space-saving installation.

Industry

Our TOP is the unit of choice when you are faced with tough conditions. Ideal when you have to deal with oil in the air, thanks to its sturdy housing, extensive accessories and custom designs. And, with EC technology, you can now simply design **convenient control systems with our KaControl system** or via an interface, such as linked to KNX, BACnet or modbus.

Retail outlets

The Ultra unit heater is synonymous with efficient and fast-responsive air conditioning in retail outlets, recognisable by its hexagonal housing design. **Unit heaters for heating and cooling really come into their own during the shoulder months in spring and autumn**. And it also makes sense to use water as the carrier medium: energy-efficient, safe and low-maintenance.

Our unit heaters at a glance

Unit heaters
for factories and workshops

TIP

> unbeatable in terms of value for money
> sickle-blade, whisper-quiet fan with optimised full nozzle
> neutral in colour, hard-wearing and tough

TOP

> design-based range of equipment, "TOP" value for money
> whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements
> heat exchanger and fan options for the most diverse applications

TOP C

> heating or cooling in a 2-pipe system with one unit
> whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements
> two capacity levels of copper/aluminium heat exchanger

Unit heaters
for large high-end spaces

Ultra

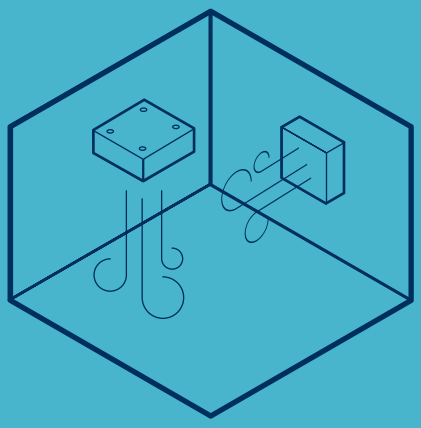
> minimal height due to circular heat exchanger
• hexagonal housing design for optimum air distribution with heating and cooling
> whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements

Mobile unit heaters
for construction sites

Site heater

> all site heaters are available on short delivery times
> no need to stop working on site because of the cold
> heated, dried and ice-free sites

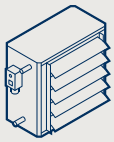
Installation option



Wall-mounted	Ceiling-mounted
TIP	TIP
TOP	TOP
TOP C ❄	TOP C (horizontal air outlet) ❄
Site heater	Ultra ❄
	Site heater

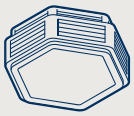
Always fits

Site heater



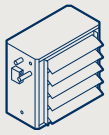
540 × 500 × 320 mm
640 × 600 × 320 mm
740 × 700 × 320 mm
840 × 800 × 360 mm

Ultra



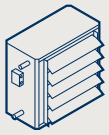
840 x 750 x 330 mm
1,004 x 900 x 330 mm
1,177 x 1,050 x 330 mm

TOP | TOP C



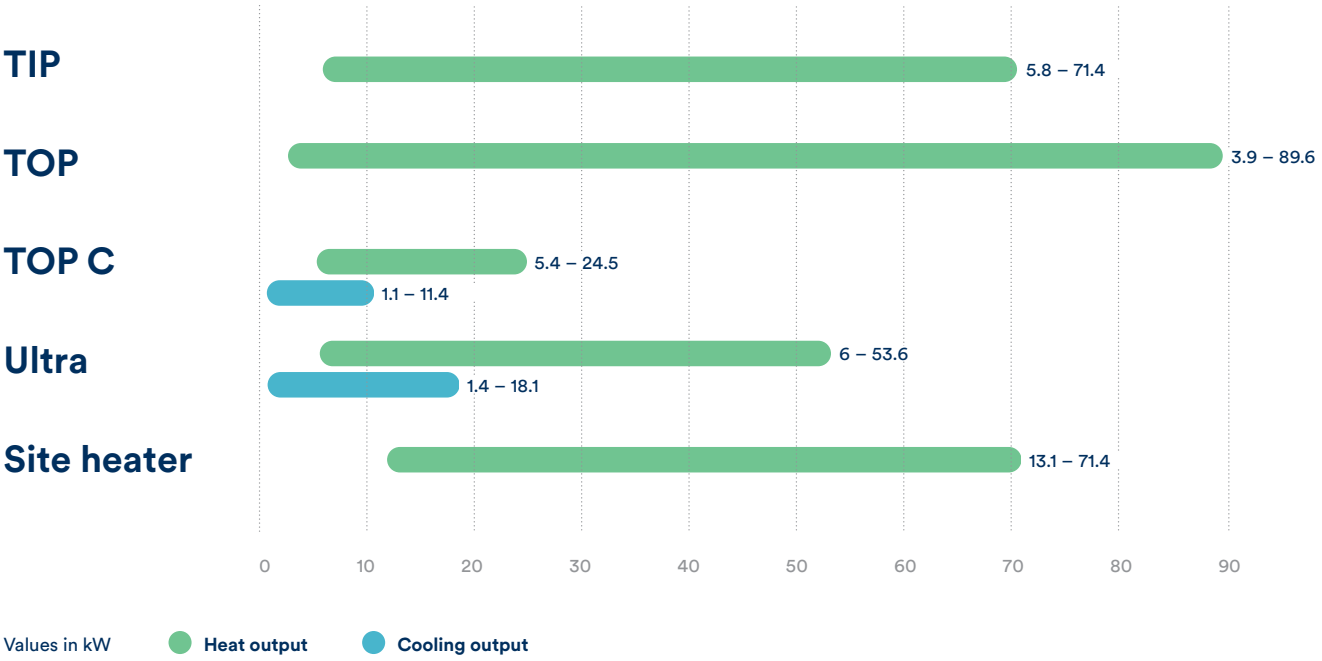
940 × 900 × 360 mm
840 × 800 × 360 mm
740 × 700 × 320 mm
640 × 600 × 320 mm
540 × 500 × 320 mm

TIP



840 × 800 × 360 mm
740 × 700 × 320 mm
640 × 600 × 320 mm

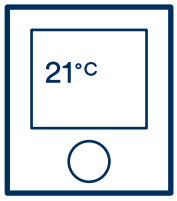
Heat and cooling outputs



It's lonely at the top

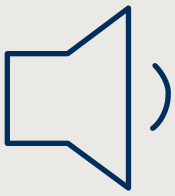
Our size 8 TOP unit heater really stands out, as it is unrivalled in terms of installation height. It copes with **ceiling heights of up to 20 m** with our KaMax air outlet

Control



Unit heaters are operated using our KaControl system and **up to 60 units can be controlled in a maximum of 24 zones with the KaControl SEL control panel**. Standardised interfaces also enable the units to be integrated into higher-level networks or building automation systems, such as BACnet, modbus or KNX.

Minimal noise levels



We only notice how much a high noise level affects us when it is abruptly interrupted. **Our continuously variably controlled unit heaters generate less stress, as they only operate within the power range actually required**. Not one revolution too many or too few. Generating only the noise emissions that are absolutely necessary. At the same time using whisper-quiet sickle-blade fans.

Reliably into the future with the best

Rely on the best unit heater range with Kampmann. That means always the **right model and the right size for your project.** Giving your client maximum comfort and efficiency. And, of course, we rely on energy-efficient and continuously variable EC motors. **Ensuring you comply with the Ecodesign Directive for many years to come. Outdated AC technology can no longer keep pace.**

Matching accessories

KaMax

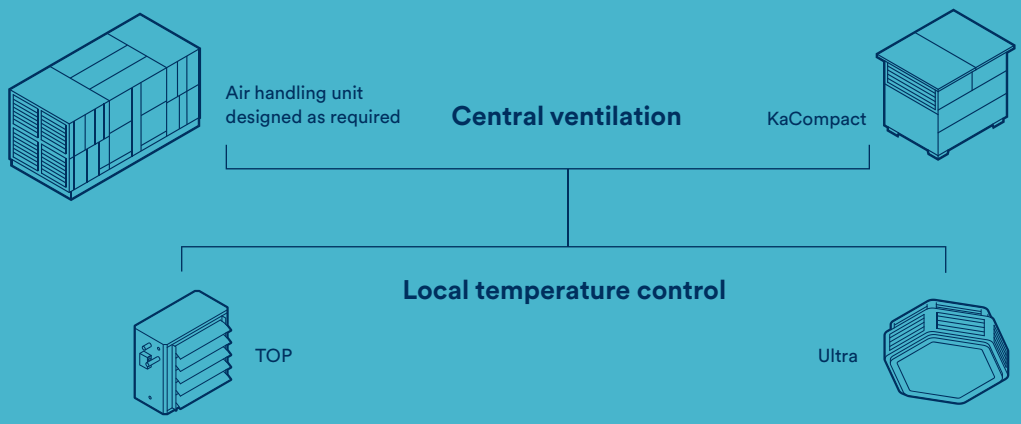
Air outlet for ceiling-mounted units, for large penetration depths and faster air mixing in heating mode too.

KaMax switch

Continuously variable control of KaMax fins.

Genuine team players

Hybrid ventilation concept

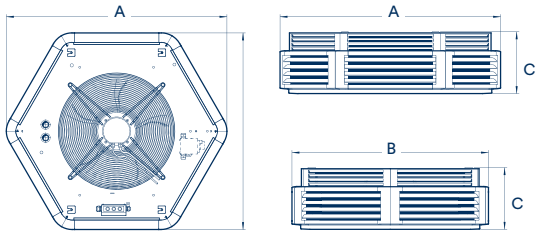


Hybrid ventilation systems are **bidirectional ventilation systems with efficient heat recovery.**
Temperature control is provided by decentralised units inside the room and not by the central ventilation unit (air handling unit). Primary air is only fed in if required. A CO_2 sensor monitors this specific requirement. Otherwise, the decentralised units are operated with secondary air.

Hybrid ventilations systems make sense as using water as a carrier medium is more efficient than air.
Our unit heaters are ideal for this in conjunction with our Kompakt ventilation unit or individually configured air handling units from our specialist ventilation brand NOVA.

It's your choice

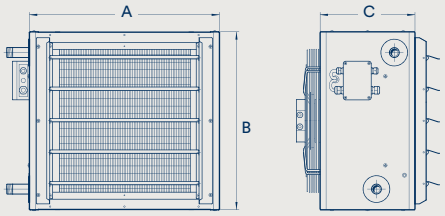
Ultra



Type	Size	Width A	Depth B	Height C	Heat output [1]	Cooling output [2]	Cooling output [3]	Air volume flow
		[mm]	[mm]	[mm]	[kW]	[kW]	[kW]	[m³/h]
EC fan, 230 V, high speed	73	840	750	330	6.5 – 15.9	-	-	590 – 1500
	84	1004	900	330	6.0 – 20.5	3.0 – 7.5	1.4 – 3.7	500 – 1860
	85	1004	900	330	7.4 – 33.2	3.7 – 12.0	1.7 – 5.7	520 – 2970
	96	1177	1050	330	10.2 – 53.6	5.1 – 18.1	2.2 – 8.7	680 – 5620
EC fan, 230 V, low speed	96	1177	1050	330	8.2 – 40.1	4.2 – 14.0	1.6 – 6.7	440 – 3930

[1] at LPHW 75/65 °C, t_{L1} = 20 °C
[2] at CHW 7/12 °C, t_{L1} = 27 °C, 48 % rel. humidity
[3] at CHW 16/18 °C, t_{L1} = 27 °C, 48 % rel. humidity

TOP



Copper/aluminium heat exchanger

Type	Size	Width A	Height B	Depth C	Heat output [1]	Air volume flow
		[mm]	[mm]	[mm]	[kW]	[m³/h]
EC fan, 230 V, high speed	4	540	500	320	6.4 – 18.4	520 – 2720
	5	640	600	320	4.4 – 37.5	260 – 4860
	6	740	700	320	6.9 – 48.7	430 – 6900
	7	840	800	360	14.2 – 71.4	970 – 9680
	8	940	900	670	19.2 – 89.4	1370 – 11800
EC fan, 230 V, low speed	4	540	500	320	5.8 – 15.3	450 – 2210
	5	640	600	320	6.5 – 26.0	480 – 3370
	7	840	800	360	10.7 – 55.6	590 – 7820

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

Heat exchanger, galvanised steel

Type	Size	Width A	Height B	Depth C	Heat output [1]	Air volume flow
		[mm]	[mm]	[mm]	[kW]	[m³/h]
EC fan, 230 V, high speed	4	540	500	320	6.0 – 18.1	550 – 2770
	5	640	600	320	7.4 – 34.0	640 – 4800
	6	740	700	320	9.5 – 44.0	790 – 5860
	7	840	800	360	14.4 – 59.1	1180 – 8900
	8	940	900	670	19.3 – 89.6	1920 – 12230
EC fan, 230 V, low speed	4	540	500	320	5.5 – 14.9	480 – 2200
	5	640	600	320	9.0 – 24.8	850 – 3420
	7	840	800	360	12.1 – 46.4	910 – 7070

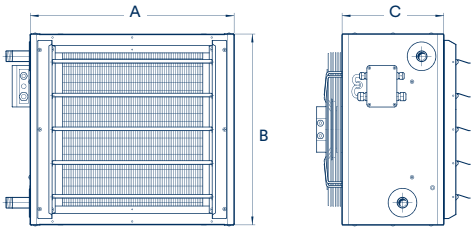
[1] at LPHW 75/65 °C, t_{L1} = 20 °C

Heat exchanger, galvanised steel, cross-counterflow

Type	Size	Width A	Height B	Depth C	Heat output [2]	Air volume flow
		[mm]	[mm]	[mm]	[kW]	[m³/h]
EC fan, 230 V, high speed	4	540	500	320	4.4 – 13.4	550 – 2770
	5	640	600	320	5.9 – 21.7	640 – 4800
	6	740	700	320	7.6 – 31.1	790 – 5860
	7	840	800	360	14.2 – 49.2	1180 – 8900
EC fan, 230 V, low speed	4	540	500	320	3.9 – 11.7	480 – 2200
	5	640	600	320	7.5 – 17.8	850 – 3420
	7	840	800	360	12.3 – 41.3	910 – 7070

[2] at LPHW 80/40 °C, t_{L1} = 20 °C

TIP



Type	Size	Width A	Height B	Depth C	Heat output [1]	Air volume flow
		[mm]	[mm]	[mm]	[kW]	[m³/h]
EC fan, 230 V, high speed	**4**	540	500	320	6.4 – 18.4	520 – 2720
	5	640	600	320	4.4 – 37.5	260 – 4860
	6	740	700	320	6.9 – 48.7	430 – 6900
EC fan, 230 V, low speed	**4**	540	500	320	5.8 – 15.3	450 – 2210
	5	640	600	320	6.5 – 26.0	480 – 3370

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

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Calculate your product online:
kampmanngroup.com > Products > Unit Heaters


12,5t
ABUS 12,5t

03
Fan Coils

The cooling of buildings is becoming increasingly relevant. The typical products employed here include fan coils, which, as water-based systems, are as current and useful as never before. No wonder with all their benefits and versatile uses. Kampmann is at the forefront in different sectors.

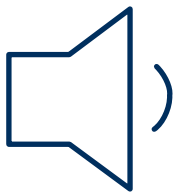
+ cooling and heating in conjunction with heat pumps/chillers
+ no refrigerant circulating in the building and only small quantities used in the chiller
+ fast response times thanks to powerful and efficient EC fans
+ for every requirement for installation in and under the ceiling, suspended on the wall or free-standing
+ in hybrid systems to supply primary air and control the temperature of the recirculating air
+ for air conditioning in addition to surface temperature control

Calling all sensible people

Admittedly "sensible" does not come across as a catchy advertising message. But what if it's the truth? Sensible designers use fan coils when users ask for a good indoor climate. That's what fan coils provide. **In the middle of summer, as in winter, and in the in-between months as well when other systems sometimes struggle. Water-based fan coil systems are also subject to minimal safety requirements and can be adapted to developments on the refrigerant market** – so sensible after all?

Market-leading in low-noise

Venkon



Venkon fan coils fulfil all expectations for a quiet environment, thanks to their energy-saving EC technology. Peace and quiet so that you can focus on important matters. **Market-leading quiet and nonetheless enormous outputs at higher speed ranges.**

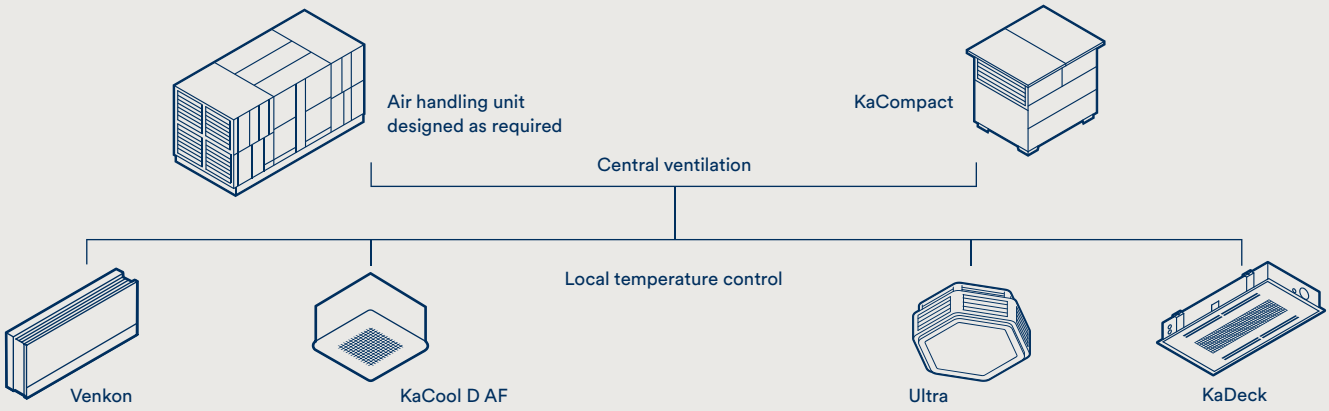
VDI 6022: the hygiene experts

Venkon, KaCool D HC and KaCool D HY provide VDI 6022-compliant air conditioning with their sealed surfaces, ideal cleaning options and ePM10 > 50% filters for totally hygienic rooms air in offices or hotel bedrooms.

And, thanks to their motorised **H14 filter for Venkon units, HEPA filters** now form an integral part of sustainable air conditioning systems.

Genuine team players

Hybrid ventilation concept



Hybrid ventilation systems are **bidirectional ventilation systems with efficient heat recovery**. **Temperature control is provided by decentralised units inside the room** and not by the central ventilation unit (air handling unit). Primary air is only fed in if required. A CO_2 sensor monitors this specific requirement. Otherwise, the decentralised units are operated with secondary air. **Hybrid ventilations systems make sense as using water as a carrier medium is more efficient than air**. Our fan coils are ideal for this in conjunction with our Kompakt ventilation unit or individually configured air handling units from our specialist ventilation brand NOVA.

Our fan coils at a glance

KaDeck

> low suspended ceiling heights needed, installation height of only 165 mm
> all components (including valves) can be accessed without tools, no inspection openings needed on site
> thermally and acoustically insulated housing made of EPP (expanded polypropylene)

Venkon

> ultra-versatile in terms of length and appearance
> hygiene-compliant in accordance with VDI 6022 in conjunction with optional ePM10>50% filter, easy-clean
> versatile combination by the use of basic unit and casing

Venkon XL

> XL performance guaranteed
> for higher external pressure requirements
> highly optimised, large heat exchanger

Ultra

> minimal height due to circular heat exchanger
• hexagonal housing design for optimum air distribution with heating and cooling
> whisper-quiet sickle-blade fan with energy-efficient EC technology complies with ErP requirements

KaCool D AF

> AtmosFeel for maximum comfort
> minimalist cassette design
> whisper-quiet with EC fan

KaCool W

> design wall-mounted unit for heating and cooling
> whisper-quiet with EC fan
> optional condensate pump can be fitted within the housing

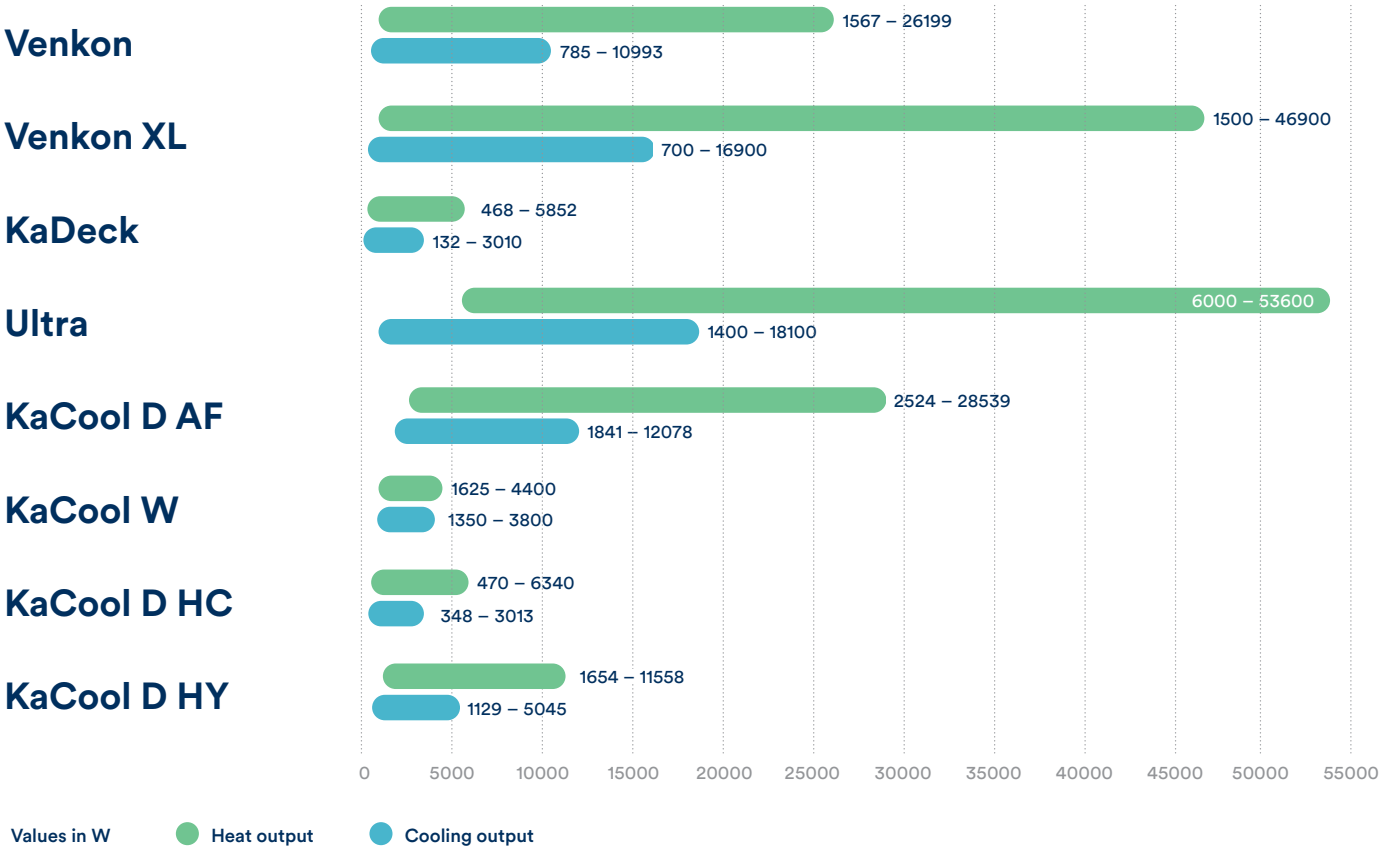
KaCool D HC

> certified compliant with the Hygiene Directive DIN 1946-4 and VDI 6022
> all components can be accessed and cleaned without tools
> suspended ceiling models fit ceiling grid dimensions (625 x 625 mm)

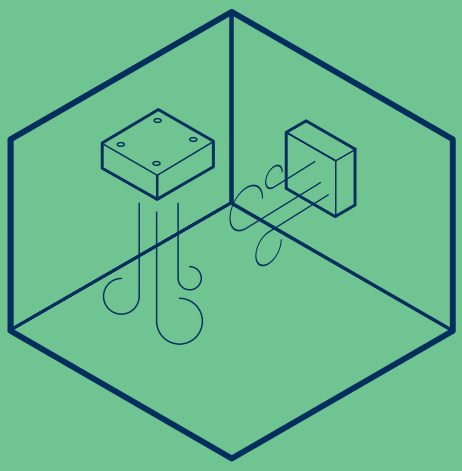
KaCool D HY

> ceiling cassette for heating and cooling
> ideal in rooms with stringent hygiene requirements
> VDI 6022-compliant
> including attractive and low-maintenance metal trim

Heat and cooling outputs



Installation option



Wall-mounted	Ceiling-mounted
Venkon	Ultra
KaCool W	Venkon
	Venkon XL
	KaDeck
	KaCool D AF
	KaCool D HC
	KaCool D HY

Matching accessories

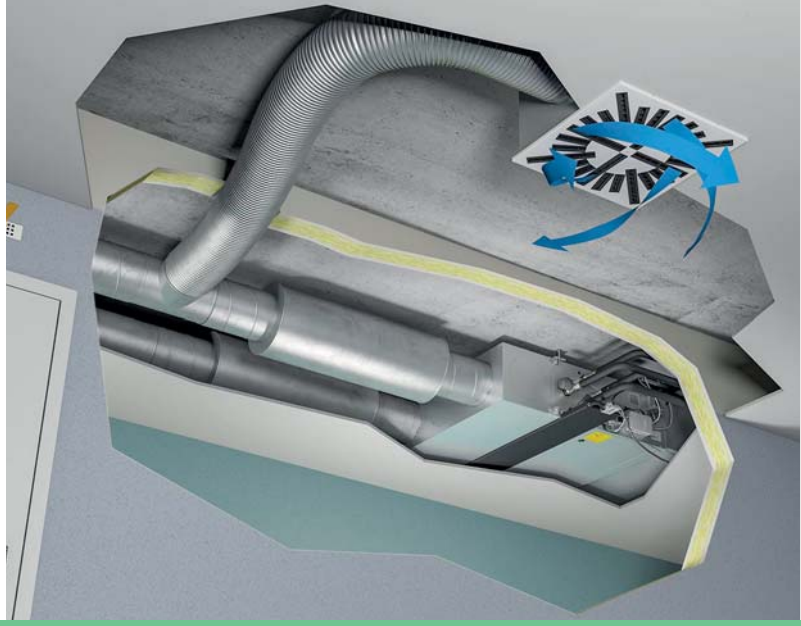
KaController with one-touch operation or side buttons, 24 V wall-mounted room control unit with integral room temperature sensor, also in black

Interface cards KNX/modbus RTU for connection to building automation networks, factory-fitted or supplied loose

Perfect duo

Venkon XL and DAL358
For high output with high external pressure

Have you come across office projects like this? High cooling and heating requirement but a need to be quick to respond and quiet. So ban the fan coils to the corridor. The Venkon XL supplies connected swirl diffusers with the required conditioned air from the suspended ceiling.



Create space

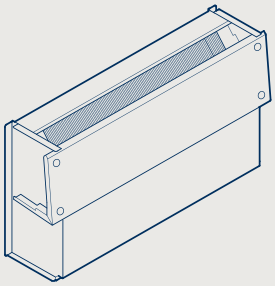
Venkon

Only Kampmann provides you with fan coils that blend into the room and do not dominate it. In **suspended ceilings**, in **hotel** or **sill-line casings**. Attractive **free-standing casings** are, of course, also available.

Diversity of shape and size

Venkon

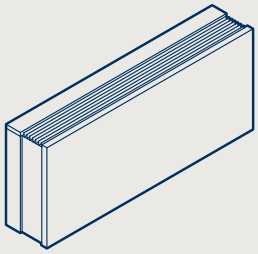
Four sizes



Basic units

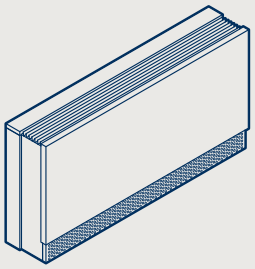
Size	Length	Height
61	625	494
63	925	494
66	1375	494
67	1725	494

Models



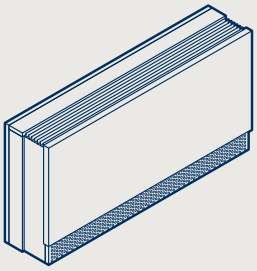
Wall-hanging
Intake on the underside

Length	Height	Depth
900	505	235
1200	505	235
1650	505	235
2000	505	235



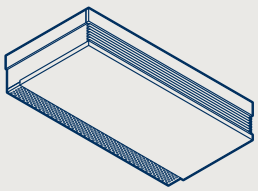
Wall-mounted
Front intake

Length	Height	Depth
900	605	235
1200	605	235
1650	605	235
2000	605	235



Free-standing
Front intake, with rear panel

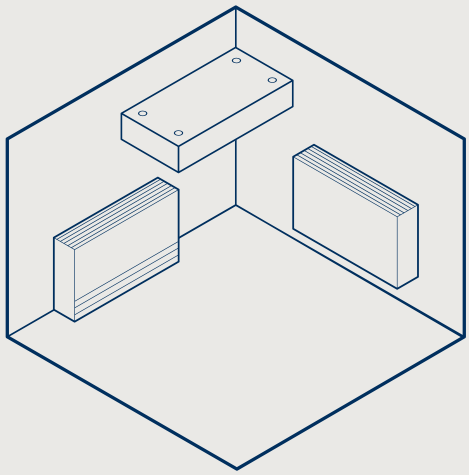
Length	Height	Depth
900	605	255
1200	605	255
1650	605	255
2000	605	255



Ceiling
Intake on the underside

Length	Height	Depth
900	605	235
1200	605	235
1650	605	235
2000	605	235

Installation options



All dimensions in mm

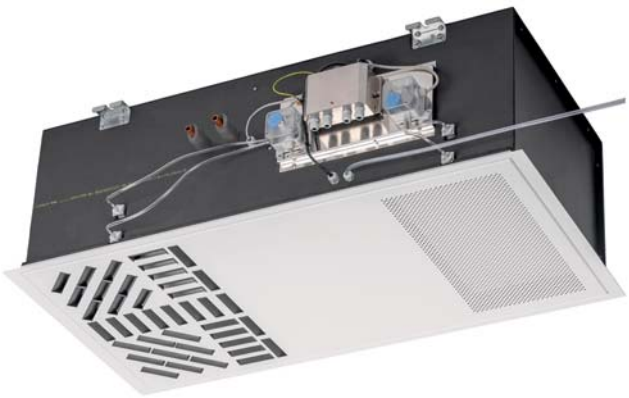
At your convenience

KaCool D AF

Ceiling cassettes are the traditional method of air conditioning office buildings, hotels, showrooms and shop floors. And Kampmann KaCool D AF units have long been some of the leading products in this sector. The unit heats and cools rooms with its high output. Draught-free air flows are all the more important. The KaCool D AF is designed specifically for this. **The air discharge makes maximum use of the Coanda effect. It produces an air stream from the ceiling that falls into the room at a seriously reduced speed. That's what we call AtmosFeel (AF).** This technology is incorporated in all variants of the KaCool D AF.
You can select either a model with a plastic or metal trim. If required, the valves can also be concealed within the housing, fully factory-fitted.

Clinically clean

KaCool D HC



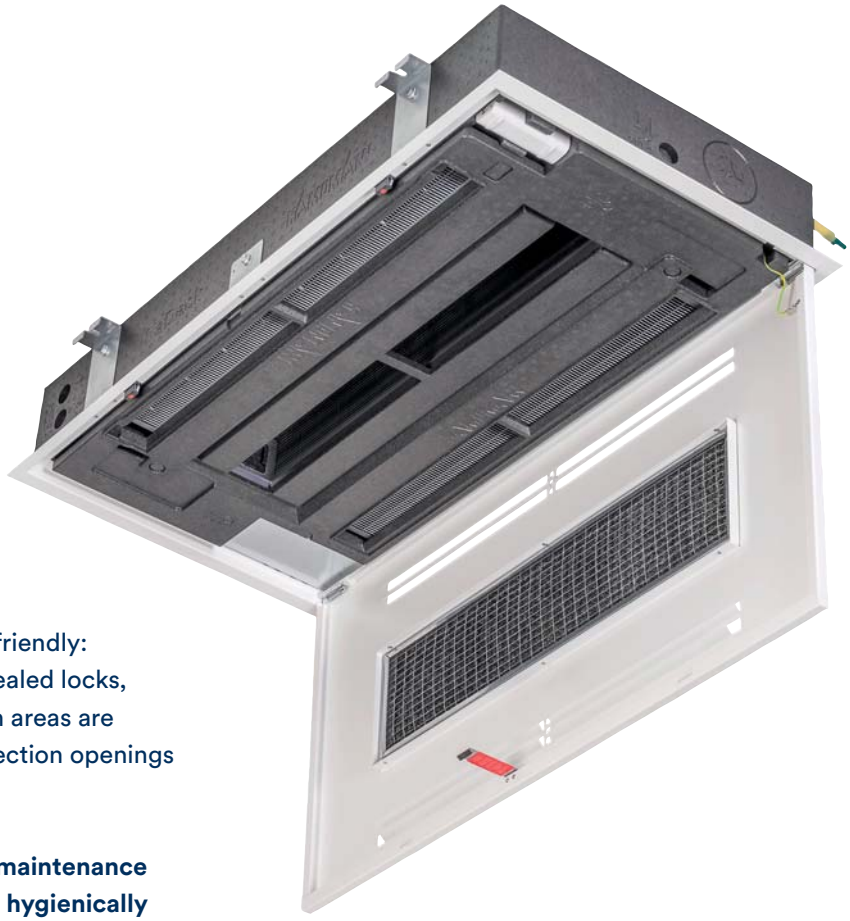
First-class filter quality and a top cleaning concept make the KaCool D HC the perfect equipment to fit in doctors' surgeries and clinics. It therefore complies with DIN 1946-4 for air handling units in healthcare buildings and premises, and accordingly is fitted with ePM1>55% and ePM1>85% filters in the air intake and outlet. Certified - but of course!

The entire interior space is fully and simply accessible. The complete underside of the ceiling-mounted device acts as a revision flap with snap-in closures. The coating on the interior space prevents corrosion and at the same time is also **resistant to cleaning with disinfectants**.

And to ensure that everything remains safe even between maintenance, the **built-in differential pressure sensor** signals at an early stage the need to change the filter. A Class H14 HEPA filter can also be used, for instance intermittently during the flu season.

Everything under control

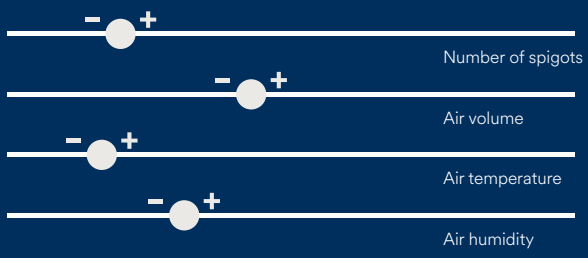
KaDeck



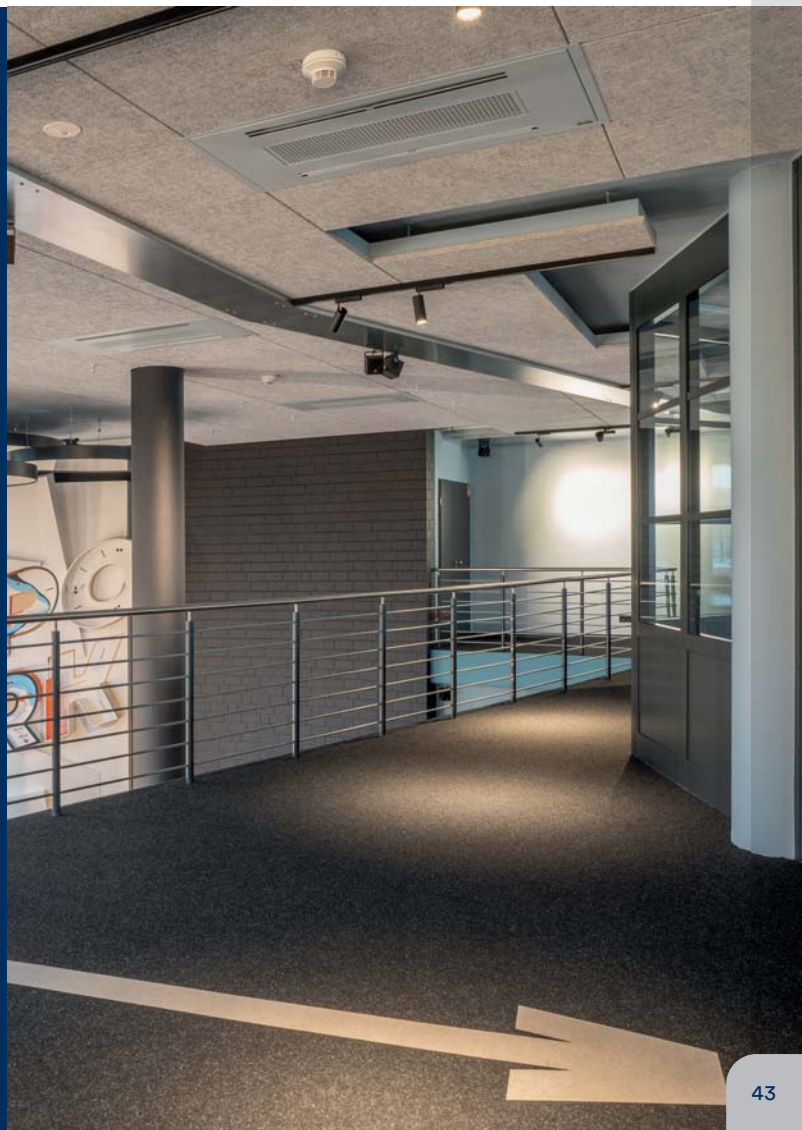
Extremely easy to install and maintenance-friendly: the KaDeck can be simply opened by concealed locks, while the waterside and electric connection areas are arranged in such a way that no further inspection openings are required on site.

All components are easily accessible and maintenance could not be simpler. The KaDeck remains hygienically clean throughout its entire service life.

Primary air calculation

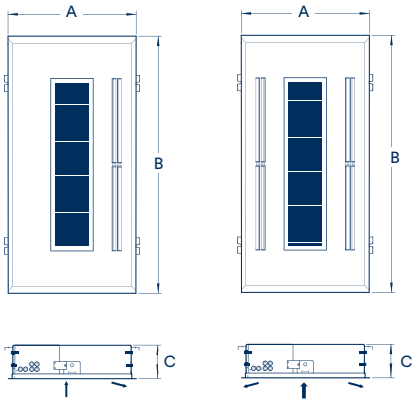


KaDeck introduces primary air into a space, with no additional supply air openings needed in the ceiling. **Conveniently calculate the primary air volume for your project on our website**. You'll find all you need to know there: primary air, heating and cooling outputs, as well as extensive technical data on sound levels and pipework in accordance with your selected control voltage. Then simply download your individual data sheet, bookmark the calculation or immediately send an enquiry about the product.



It's your choice

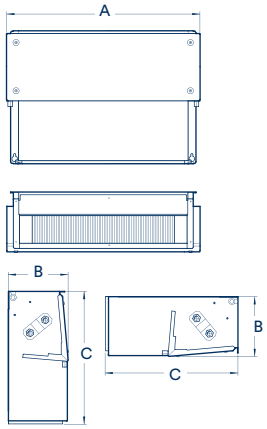
KaDeck



System	Air outlet	Width A	Length B	Height C	Cooling output (dry) [1]	Cooling output (wet) [2]	Heat output [3]
		[mm]	[mm]	[mm]	[W]	[W]	[W]
2-pipe	one-sided discharge	600 I 625	1200 I 1250	165	134 – 752	346 – 1666	610 – 3247
	two-sided discharge	600 I 625	1200 I 1250	165	244 – 1364	641 – 3010	1113 – 5852
4-pipe	one-sided discharge	600 I 625	1200 I 1250	165	132 – 646	307 – 1348	468 – 1664
	two-sided discharge	600 I 625	1200 I 1250	165	243 – 1173	573 – 2442	868 – 3091

[1] at CHW 16/18 °C, t_{L1} = 27 °C, 48 % rel. humidity
[2] at CHW 7/12 °C, t_{L1} = 27 °C, 48 % rel. humidity
[3] at LPHW 75/65 °C, t_{L1} = 20 °C

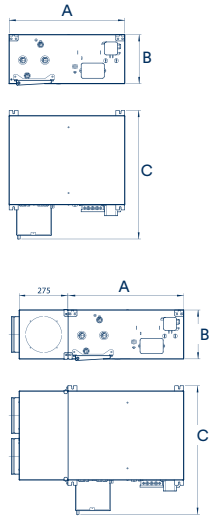
Venkon



Type	Size	Length A	Depth B	Height C	Heat output [1]	Cooling output [2]
		[mm]	[mm]	[mm]	[W]	[W]
2-pipe	61	625	220	494	1851 – 8240	823 – 3339
	63	925	220	494	2856 – 12824	1133 – 5129
	66	1375	220	494	4540 – 20303	1864 – 8335
	67	1725	220	494	5447 – 26199	2184 – 10993
4-pipe	61	625	220	494	1567 – 5281	785 – 3150
	63	925	220	494	2399 – 8308	1029 – 4656
	66	1375	220	494	3668 – 12714	1556 – 6956
	67	1725	220	494	4496 – 16215	1909 – 9604

[1] at LPHW 75/65 °C, t_{L1} = 20 °C
[2] at CHW 7/12 °C, t_{L1} = 27 °C, 48 % rel. humidity

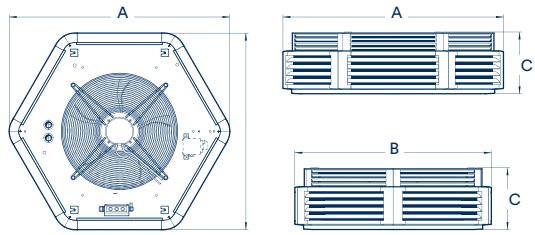
Venkon XL



Type	Size	Length A	Height B	Width C	Air volume [1]	Cooling output [2]	Heat output [3]
		[mm]	[mm]	[mm]	[m³/h]	[kW]	[kW]
2-pipe	1	650	284	724	110 – 680	0.7 – 3.4	2.0 – 10.6
	2	650	284	1124	395 – 1465	2.8 – 7.9	6.6 – 22.8
	3	650	284	1524	405 – 2200	2.7 – 11.1	6.8 – 34.4
	4	650	284	1924	845 – 2975	5.6 – 16.9	14.1 – 46.9
4-pipe	1	650	284	724	110 – 680	0.7 – 3.4	1.5 – 4.7
	2	650	284	1124	395 – 1465	2.8 – 7.9	4.0 – 9.9
	3	650	284	1524	405 – 2200	2.7 – 11.1	4.5 – 16.2
	4	650	284	1924	845 – 2975	5.6 – 16.9	8.4 – 21.9

[1] at 30 Pa external pressure, ISO Coarse filter, continuously variable
[2] at CHW 7/12 °C, t_{L1} = 27 °C, 48 % rel. humidity
[3] at LPHW 75/65 °C, t_{L1} = 20 °C

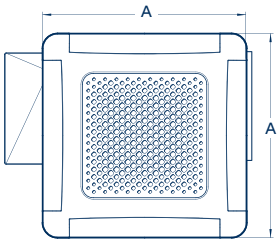
Ultra

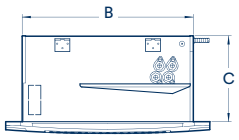


Type	Size	Width A	Depth B	Height C	Heat output [1]	Cooling output [2]	Cooling output [3]	Air volume flow
		[mm]	[mm]	[mm]	[kW]	[kW]	[kW]	[m³/h]
EC fan, 230 V, high speed	73	840	750	330	6.5 – 15.9	–	–	590 – 1500
	84	1004	900	330	6.0 – 20.5	3.0 – 7.5	1.4 – 3.7	500 – 1860
	85	1004	900	330	7.4 – 33.2	3.7 – 12.0	1.7 – 5.7	520 – 2970
	96	1177	1050	330	10.2 – 53.6	5.1 – 18.1	2.2 – 8.7	680 – 5620
EC fan, 230 V, low speed	96	1177	1050	330	8.2 – 40.1	4.2 – 14.0	1.6 – 6.7	440 – 3930

[1] at LPHW 75/65 °C, t_{L1} = 20 °C
[2] at CHW 7/12 °C, t_{L1} = 27°C, 48 % rel. humidity
[3] at CHW 16/18 °C, t_{L1} = 27°C, 48 % rel. humidity

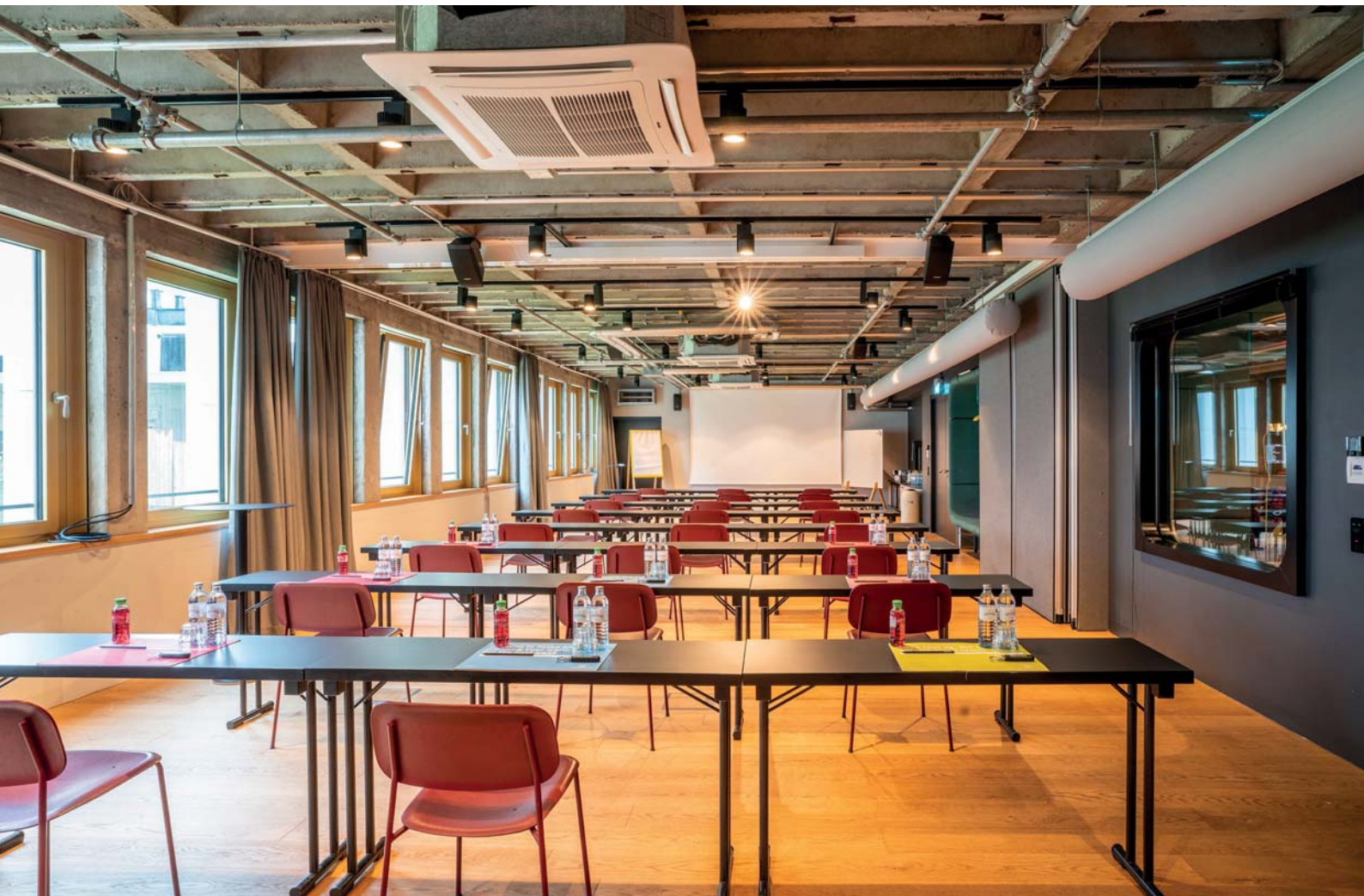
KaCool D AF



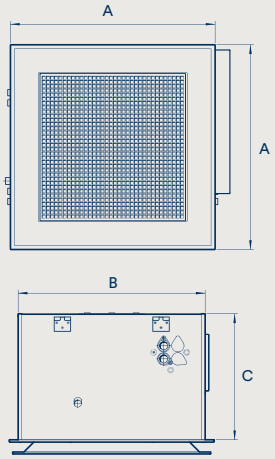


Type	Size	Panel Length A	Carcass Width B	Carcass Height C	Cooling output [1]	Heat output [2]
		[mm]	[mm]	[mm]	[W]	[W]
2-pipe	1	680	572	286	1841 – 2829	4417 – 6614
	2	680	572	286	2324 – 4495	5251 – 9854
	3	680	572	286	2602 – 4972	5901 – 11307
	4	680	572	286	3947 – 5377	9549 – 12468
	5	930	818	326	3627 – 7039	8483 – 16511
	6	930	818	326	4328 – 9393	8966 – 20108
	7	930	818	326	5514 – 12078	12411 – 28539
4-pipe	1	680	572	286	1843 – 2623	3265 – 4554
	2	680	572	286	2014 – 3366	3606 – 6144
	3	680	572	286	1998 – 3964	2524 – 4331
	4	680	572	286	2523 – 4409	3014 – 4731
	5	930	818	326	3429 – 6186	6029 – 11224
	6	930	818	326	3915 – 7487	7256 – 13563
	7	930	818	326	4963 – 8454	9071 – 14602

[1] at CHW 7/12 °C, t_{L1} = 27 °C, 48 % rel. humidity
[2] at LPHW 75/65 °C, t_{L1} = 20 °C



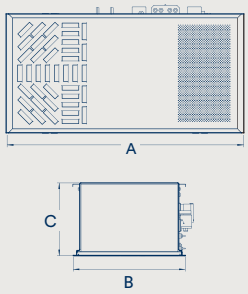
KaCool D HY



Type	Size	Length A	Width B	Height C	Cooling output [1]	Heat output [2]
		[mm]	[mm]	[mm]	[W]	[W]
2-pipe	1	623	575	385	1181 – 2690	2848 – 6170
	2	623	575	385	1388 – 4236	3132 – 9080
	3	623	575	385	1604 – 4703	3542 – 10429
	4	623	575	385	2321 – 5045	5917 – 11558
4-pipe	1	623	575	385	1129 – 2475	2012 – 4218
	2	623	575	385	1324 – 3211	2276 – 5712
	3	623	575	385	1198 – 3731	1654 – 4051
	4	623	575	385	1683 – 4220	2131 – 4478

[1] at CHW 7/12 °C, t_{L1} = 27 °C
[2] at LPHW 75/65 °C, t_{L1} = 20 °C

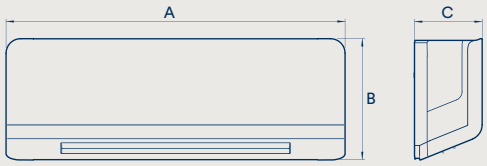
KaCool D HC



Type	Length A	Depth B	Height C	Heat output	Cooling output
	[mm]	[mm]	[mm]	[W]	[W]
2-pipe	1250	625 (675[1])	406	470 – 6340	336 – 2923

[1] including control

KaCool W



Size	Width A	Height B	Depth C	Cooling output [1]	Heat output [2]
	[mm]	[mm]	[mm]	[W]	[W]
1	930	333	185	1350 – 2300	1625 – 2775
2	930	333	185	1450 – 2400	1875 – 3000
3	1235	333	185	1775 – 3650	1725 – 4100
4	1235	333	185	1900 – 3800	1900 – 4400

[1] at CHW 7/12 °C, t_{L1} = 27 °C, 48 % rel. humidity
[2] at LPHW 45/40 °C, t_{L1} = 20 °C

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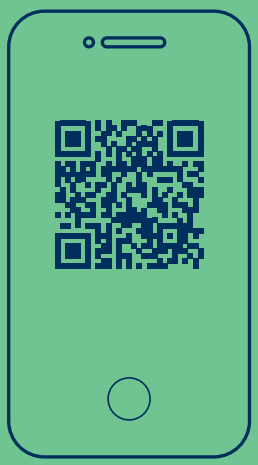


04
Air purifiers

Air purifiers provide safe room air for colleagues, guests, customers and your own family. They have received special attention since the start of the coronavirus pandemic, but equally come into their own in any ordinary flu season. Air purifiers interrupt the infection path of diseases that spread through the smallest particles in the room air. They therefore ensure health, reduce sick leave and also provide a feeling of safety, whether at the workplace, shopping or at the hairdresser.

+ above-average large high-performance (HEPA) H14 filters filter 99.995% of suspended particles from the air
+ for safe working, shopping etc.during disease waves
+ popular with allergy-sufferers as they also filter out allergens
+ rapidly available component of your hygiene concept
+ plug-and-play units with tool-free filter change
+ robust unit with high-quality powder-coated housing and state-of-the-art EC motor technology

Key hygiene concept element

Mobile air purifiers are the solution for filtering suspended particles in places where no mechanical ventilation is possible. **99.995% of all suspended particles in the room air are filtered out by high-efficiency Class H14 (HEPA) filters.** This includes viruses, bacteria, germs and many other pollutants.

Allergy-sufferers breathe in

Allergy-sufferers suffer from their immune system overreacting to even smaller amounts of allergens. Frequently this affects the nose and eyes, but the lungs and bronchial tubes can also be affected. Allergy-sufferers therefore attempt to avoid the triggers, something that is extremely difficult during the pollen season. **Mobile air purifiers can help to remove many allergens from the room air. Apart from flower and grass pollen, this can also include house dust, mildew and pet dander.**

It's all about the filter

The heart of the unit

Not every filter is alike. Class H14 high-efficiency particle filters, also known as HEPA filters, are fitted in all sizes of our air purifiers. This means that 99.995% of all suspended particles are filtered out of the room air flowing through the unit.
We urge caution when browsing around the market as the term "HEPA" is not protected. H14 or H13 (99.95% separation)? That is essentially secondary. **The crucial factor is certification to DIN EN 1822 – insist on that. Naturally all our filters offer that.**

There was something else?

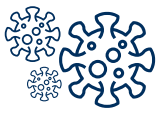
Aerosols

Many diseases are spread by three transmission routes. Direct transmission from one person to another by droplets, either when sneezing or even speaking or singing. So-called smear infections are also possible where the pathogen is transmitted from surfaces or objects.

The third method of transmission relates to aerosols. Aerosols are mixtures of air and water that are so small that they move around in the room air over long periods. Pathogens, such as viruses or bacteria, uses these aerosols as a transport medium for transmission between people through the room air. It is therefore essential to reduce the aerosol load in the room air.

What is filtered?

The built-in, high-efficiency and easy to replace HEPA filter removes allergens, bacteria and viruses, such as:



Viruses

Pollen

Mould

Bacteria

Mildew

House dust

Our air purifiers at a glance

Air purifier KA-520 L

> rooms of up to approx. 25 m²
> air throughput of up to 330 m³/h
> up to 77% reduced infection risk*

> dimensions (H × W × D): 665 × 350 × 400 mm
> weight: 24 kg
> applications: small rooms only occupied by people for short periods, such as waiting rooms and treatment rooms

Air purifier KA-520 XL

> rooms of up to approx. 50 m²
> air throughput of up to 720 m³/h
> up to 90% reduced infection risk*

> dimensions (H × W × D): 665 × 350 × 400 mm
> weight: 24 kg
> applications: medium-sized rooms or large rooms with several units, for normal acoustic requirements

Air purifier KA-520 XL Pro

> rooms of up to approx. 50 m²
> air throughput of up to 720 m³/h
> up to 90% reduced infection risk*

> dimensions: (H × W × D) 1050 × 720 × 390 mm
> weight: 55 kg
> applications: medium-sized rooms or large rooms with several units, for stricter acoustic requirements, such as in restaurants

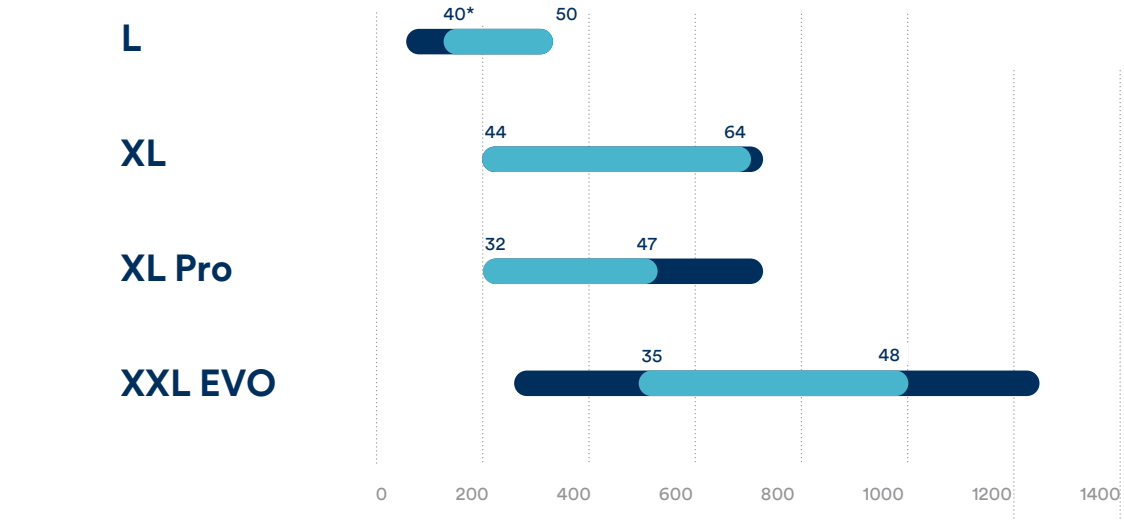
Air purifier KA-520 XXL EVO

> rooms of up to approx. 100 m²
> air throughput of up to 1250 m³/h
> up to 94% reduced infection risk*

> dimensions: (H × W × D) 665 × 665 × 620 mm
> weight: 55 kg
> applications: designed for exacting requirements in larger locations, ideal for school and public premises

* Predicted Infection Risk for Aerosol Transmission of SARS-CoV-2 Martin Kriegel, Udo Buchholz, Petra Gastmeier, Peter Bischoff, Inas Abdelgawad, Anne Hartmann medRxiv 2020.10.08.20209106

Capacities



Output (m³/h) **Pre-defined output range** **Parametrisable output range**

* Sound pressure level in dB(A)

05 Air handling units

Our centralised ventilation unit offers a wealth of benefits. First and foremost, it replaces polluted room air with fresh outside air. In its simplest form, it can be combined with slot or tubular diffusers. Alternatively, it can be installed together with decentralised units, such as unit heaters and the Katherm HK supply air module, to create an integrated system. All the required components are ready-wired in the unit from the outset.

+ compact standard units with heat recovery
+ office, retail and hotel expertise
+ standard range with fast delivery times
+ freely accessible design program for fast project configuration
+ hybrid systems consist of a centralised air handling unit for ventilation and heat recovery combined with local units for temperature control


KAMPMANN

KaCompact KG

Compact and versatile

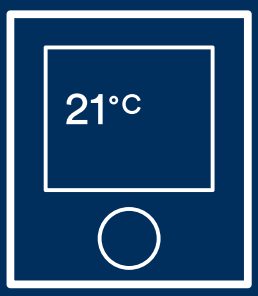
The efficient heat recovery of the KaCompact KG ventilation unit is what sets it apart. It is achieved by integrated counterflow heat recovery and energy-efficient EC fans. Standard units guarantee fast delivery times and minimal training in terms of design, thanks to the freely available design tool, as well as installation and commissioning on site.

ICA

Control from A to Z

Our in-house control options offer a user-friendly interface for simple compact solutions through to complex special solutions.
Their ease of use ensures the fast commissioning of the module.

Any other requirements? Remote system monitoring?
Functional testing and instruction by Kampmann? Happy to help!



Airblock FG

Shallow, modular system for heating, cooling, ventilation and filtering with heat recovery.

Combine supply air, extract air and heat recovery modules to suit your requirements.

Always as shallow as possible, partly due to flow grids with adjacent air routes and efficient EC fans.

KaCompact

Large spaces can breathe

The KaCompact ventilation unit was specifically designed to replace polluted room air with fresh outdoor air in large spaces, such as in industrial premises, DIY stores, retail chains or workshops, at the same time creating a pleasant climate.

The roof feed-through is located directly below the unit. The large rotary heat exchanger is positioned horizontally above this, minimising the dimensions of the KaCompact.

Design a sophisticated hybrid system when combined with unit heaters in the room.

Design tool

Kampmann offers comprehensive and intuitive design tools and project configuration aids for all products. All are freely available without the need to log in or register.

KaCompact KG units can be quickly and individually designed, thanks to their user-friendly and simple configuration.

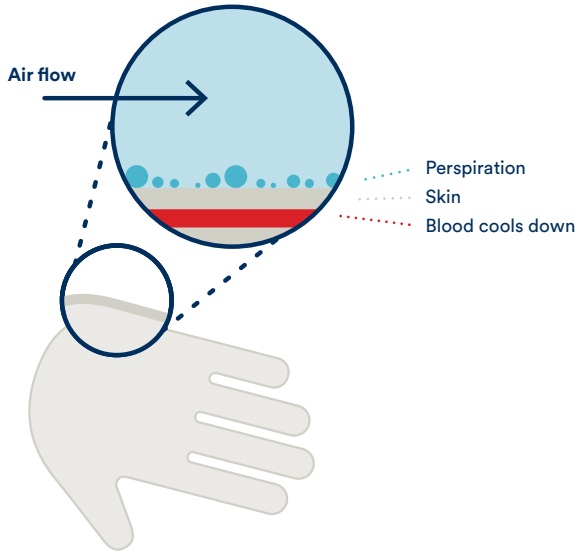
Ka_2O Indirect evaporation cooling

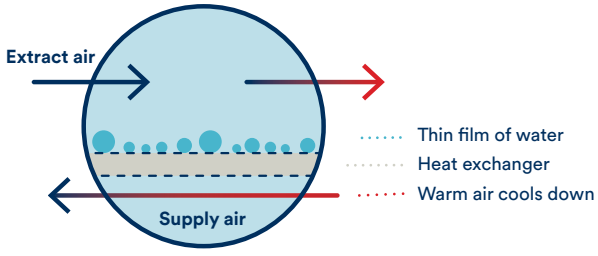
Cooling buildings can also be sustainable – our Ka_2O system for air handling units fully exploits the potential of indirect evaporation cooling. **With water used as the sole refrigerant.**

Water is sprayed into the heat exchanger on the extract air side. This 'impregnation' of the extract air cools it down so that heat is removed from the incoming outside air in a counterflow principle. The warm outside air also causes any deposits of water on the extract air side to evaporate, further cooling down the outside air.

Small counterflow heat exchangers are used in the Ka_20-System, which can be arranged in a modular way for the air volumes required. The major advantage of this: **Regardless of the volumetric flow, the pressure loss never exceeds 170 Pa.**

That's ok: regardless of the outside air temperature, up to 24,000 m³/h of supply air are cooled to 0.5 K above the wet bulb temperature of the extract air.





Spoilt for choice

Heat recovery

We consider the requirements of your project to determine the best heat recovery system to meet your needs. **Our NOVA brand engineers will help you to make the right choice**.

The air handling specialists will offer you heat recovery systems ranging from **rotation or counterflow heat exchangers**, double-plate heat exchangers to innovative **high-performance run-around coil systems** (RCS) or **Ka_2O** counterflow modules with indirect evaporation cooling.

Hygienic unit

Our air handling units are designed to conform to VDI 6022 and VDI 3803. The air entering a room may not be worse than the air being drawn off. This is, of course, a minimum target, which we far exceed for various requirements. We have extensive experience with hospital and clean room air conditioning, for which DIN 1946-4 sets the standard. With special HEPA filtration specifications, separate air routes and airtightness, temperature and humidity. Get in touch with us. We can do it.

Housing technology

NOVA air handling units adapt to your building

More and more often, space not being available and tight installation spaces are key factors in equipment design. It's great that we are designing with Europe's smallest grid dimension: 93.33 mm. But small units are not intended to reduce comfort and performance. Leave that to us. Our in-house developed housing profile obviates the need for a base frame.

What does this mean? **Simple installation using sturdy individual cubes, which can also be inserted through small openings**. Incidentally: crane lugs are always a given. And another thing, our housing technology also guarantees lower sound power levels.

Integrated cooling generation

Traditionally cooling has been provided by an externally mounted chiller or a heat pump. But it can also be built into the air handling unit. The advantage of integrating the chiller components results in an extremely compact design, a high degree of operational reliability due to low contents with short pipe runs and excellent energy efficiency thanks to low distribution and downtime losses.

Up to what level? Over 500 kW are possible with interconnected circuits.

Our air handling units at a glance

KaCompact KG

> compact ventilation unit with heat recovery
> standard range with fast delivery times
> freely accessible design program for fast project configuration

KaCompact

> for the combination of centralised ventilation with decentralised temperature control
> continuously variable energy-saving EC radial fans
> complies with the requirements of the Ecodesign Directive (ERP) 2018

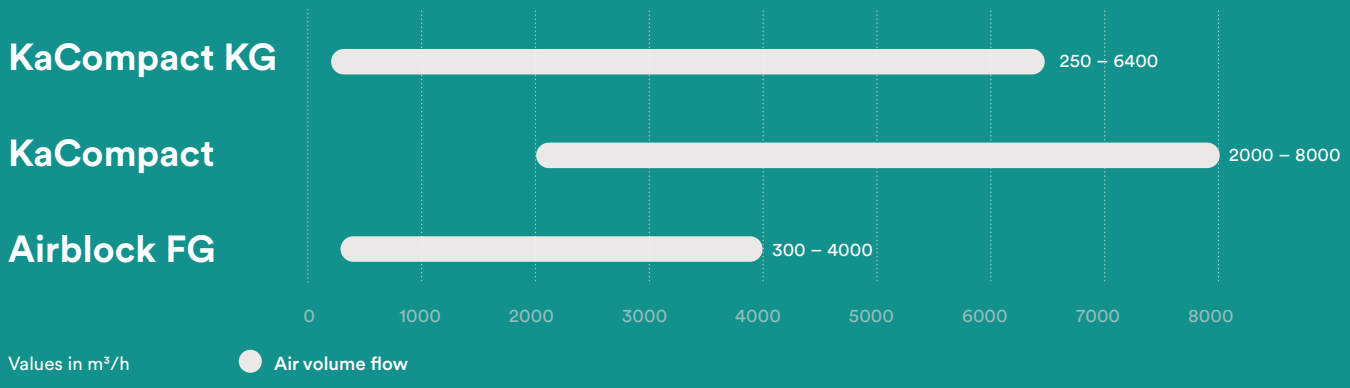
Airblock FG

> for heat recovery, fresh air, mixed air, recirculating air, heating or cooling mode
> high output combined with a shallow design
> shallow height and compact design for when space is at a premium: hence versatile installation options

Individual air handling unit

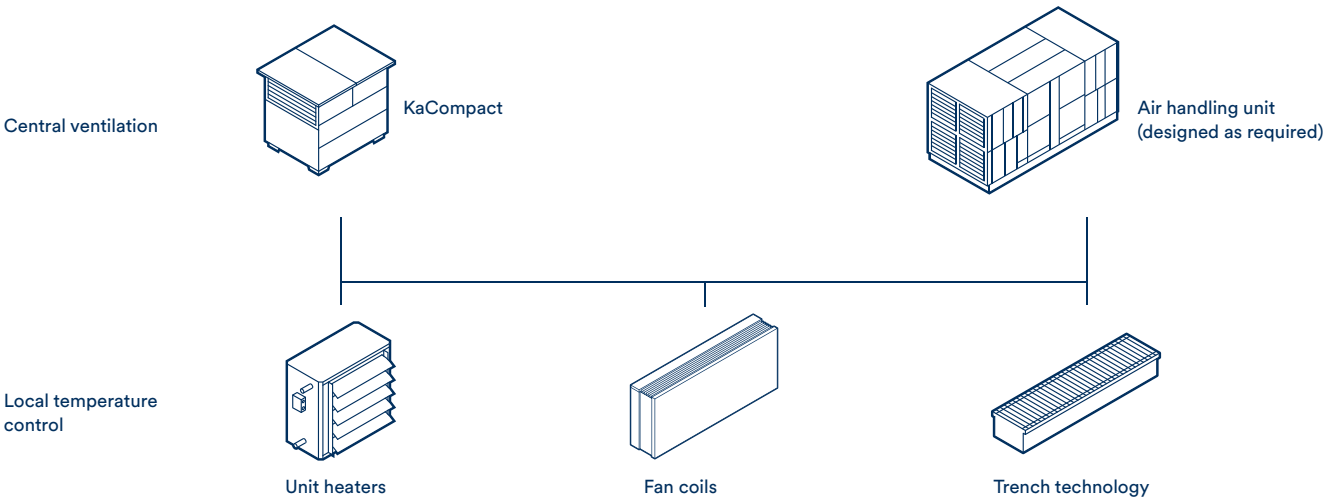
> various systems for heat recovery, cooling, humidification/dehumidification etc.
> precisely tailored air volumes
> sustainable, innovative systems, e.g. Ka_2O.

Air outputs



Real team players

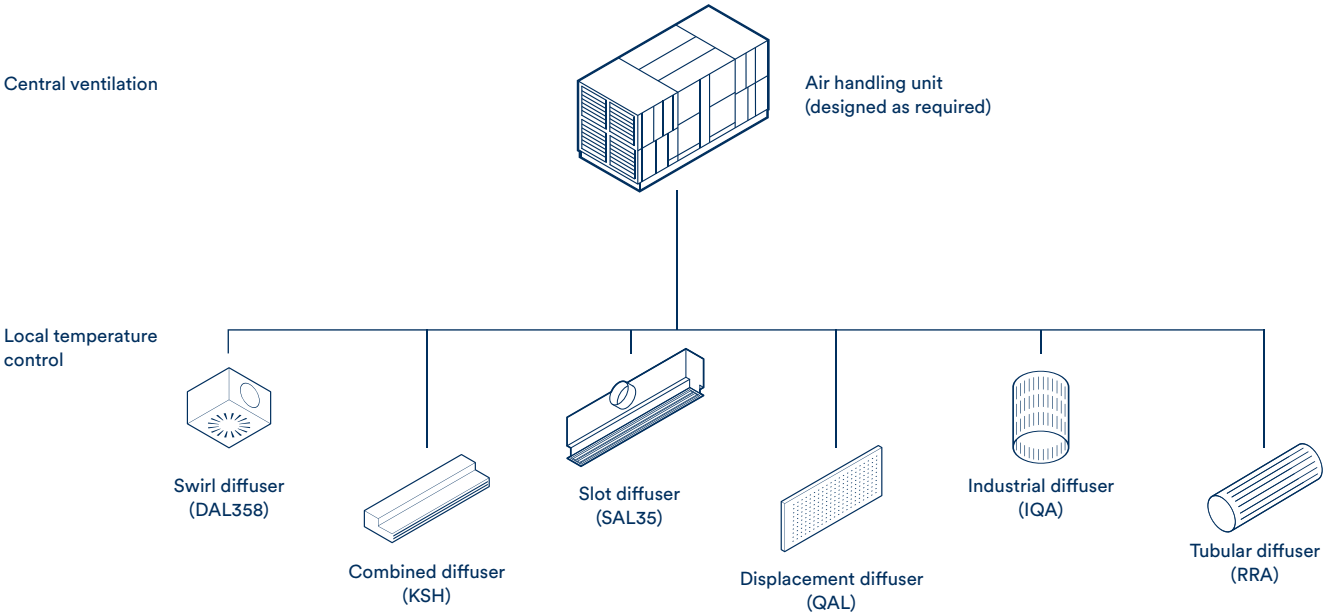
Hybrid ventilation concept



Hybrid ventilation systems are bidirectional ventilation systems with efficient heat recovery.
Temperature control is provided by local units inside the room and not by the central ventilation unit (air handling unit).
Primary air is only fed in if required. A CO_2 sensor monitors this specific requirement. Otherwise, the decentralised units are operated with secondary air.

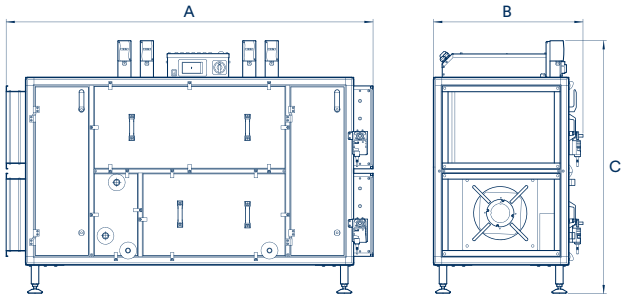
Hybrid ventilation systems make sense, as using water as a carrier medium is more efficient than air.
Kampmann unit heaters are ideal in conjunction with our KaCompact KG.

One-stop air handling units and diffusers



It's your choice

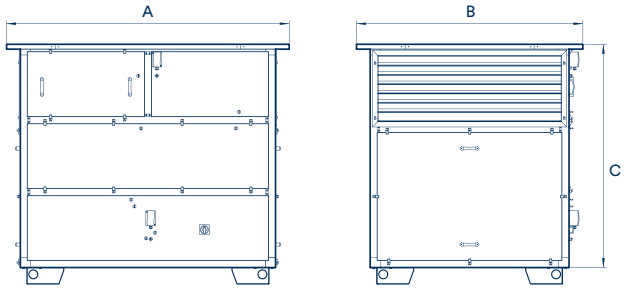
KaCompact KG



Size	Length A	Width B	Height C	Air volume [1]	Heat recovery coefficient [2]	Heat recovery output [2]	Heat recovery coefficient [3]	Heat recovery output [3]
	[mm]	[mm]	[mm]	[m³/h]	[%]	[kW]	[%]	[kW]
15	1958	797	1348	250 – 1450	83,9 – 75,5	1,4 – 7,7	90,2 – 81,4	2,4 – 13,7
25	2507	797	1720	540 – 2800	81,2 – 73,6	2,9 – 13,7	87,8 – 79,7	5,1 – 24,4
40	2908	944	2094	800 – 4500	85,6 – 77,5	4,5 – 23,3	92,3 – 83,9	7,9 – 41,2
60	3008	1215	2094	1200 – 6400	85,5 – 78,0	6,8 – 33,4	92,0 – 84,3	11,9 – 58,8

[1] all values with an external pressure of 300 Pa per air route with nominal volumetric flow and clean filters
[2] according to DIN EN 308
[3] at t_{OUTS} = -12 °C, 90 % rel. humidity, t_{EXH} = 20 °C, 40 % relative humidity

KaCompact



Size	Length A	Width B	Height C	Air volume [1]	Heat recovery coefficient [2]	Heat recovery output [2]	Heat recovery coefficient [3]	Heat recovery output [3]
	[mm]	[mm]	[mm]	[m³/h]	[%]	[kW]	[%]	[kW]
5000	1860	1450	1645	2000 – 5500	74 – 82	10,7 – 27,7	74 – 82	22,2 – 56,2
8000	2060	1800	1945	3000 – 8000	75 – 82	18,8 – 40,8	75 – 82	39,0 – 82,9

[1] all values with an external pressure of 50 Pa per air route with nominal volumetric flow, clean filters and a rotor speed of 10 rpm (equates to a rotor setting of 10 V)
[2] according to DIN EN 308
[3] at t_{OUTS} = -12 °C, 90 % rel. humidity, t_{EXH} = 20 °C, 40 % relative humidity

Airblock FG supply air module

Size	Length	Height	Depth	Air volume flow	Heat output [3]	Outlet air temperature [3]
	[mm]	[mm]	[mm]	[m³/h]	[kW]	[°C]
6	1000	390	740	300 – 1100 [1]	4,1 – 10,4	48,1 – 60,5
7	1000	390	940	700 – 2000 [1]	8,3 – 16,9	45,2 – 55,2
8	1100	490	940	800 – 2800 [2]	10,0 – 23,7	45,1 – 57,0
9	1100	490	1140	1300 – 4000 [2]	15,3 – 32,7	44,3 – 55,1

[1] at 100 Pa external pressure including LPHW heat exchanger and ISO ePM2.5 65% filter as per ISO 16890
[2] at 150 Pa external pressure including LPHW heat exchanger and ISO ePM2.5 65% filter as per ISO 16890
[3] at LPHW 75/65 °C, t_{L1} = 20 °C

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06
Diffusers

Discreetly integrated into walls and ceilings or installed prominently as a statement feature. The possibilities are manifold with our wide range of diffusers for the comfort and industrial sector. We will swirl, displace and mix until we find the perfect system for your project.

+ It's got character. Diffusers with the patented eccentric roller for project-based air outlet characteristics.
+ No compromise between large air volumes and comfort with swirl and slot diffusers.
+ A pool of fresh air in offices and industry. Displacement ventilation is efficient and very popular with users.
+ Enjoy the benefits of dry walling with combined diffusers. And supply air, extract air and sound insulation in one.
+ Industry has just got comfortable. Bring in large volumes of primary air comfortably with our industrial diffusers.
+ Call it a loft feature or industrial charm – tubular diffusers are truly eye-catching. And hydraulic balancing? That's our job!

At your convenience

The required air volumes need to be fed into rooms with no draughts. **Benefit from our planning and design expertise alongside our market-leading products.** Together with you, we will take into account key influencing factors and physical principles to obtain a comfortable air intake: temperature and induction ratios, Coanda effect and the critical air stream path. We are always there to help.

Displacement air

Fresh and unobtrusive

Displacement ventilation is the art of cooling a room by introducing primary air at a low pulse rate with only minimal undertemperature. When it's done well, it's as simple as it is brilliant.

It produces a pleasant pool of fresh air. Heat sources, such as human bodies or machines, cause the air to rise from this pool and dissipate heat loads. Up to 50 W/m².

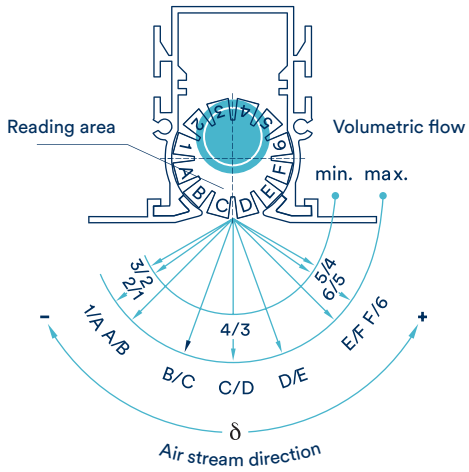
Our displacement air units can also be combined wonderfully with other systems, such as chilled ceilings.

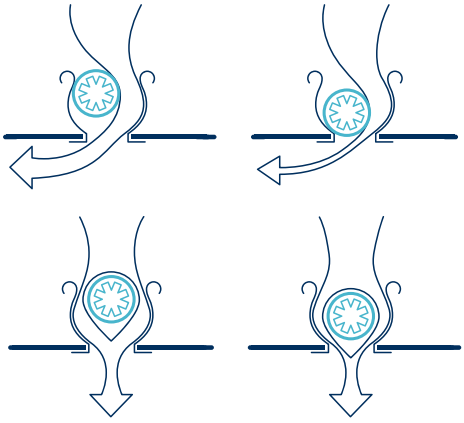
Tubular pipe system

To be honest: not everyone can do this.

Tubular pipe systems are totally on-trend and we are complete fans of them. Architects and users love their unique industrial charm in occupied zones. We look after the hydraulics. After all, it's not straightforward. **Over longer sections, the air from each section of pipe needs to be fed into the room evenly. Each outlet is set appropriately for this purpose.** It's a good thing that we don't leave anything to chance with our calculation software.

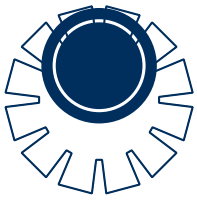
Control of the air flow direction





Our patented heart

Eccentric roller



Many of our diffusers feature an eccentrically-borne roller, which **determines the air discharge characteristics depending on its position** . In summary, it makes our products very versatile for all requirements by influencing the air flow direction, the volumetric flow and the induction percentage. **At the design stage, the optimum calculated roller position is determined for each air outlet**.

Have there been structural changes? All good! The eccentric roller can be adjusted at any time in site.

Unsere
Our diffusers
at a glance

Swirl diffusers

Products with built-in eccentric roller

Swirl diffusers are the undisputed champions when it comes to feeding **high volumetric flows into occupied zones** of all kinds. They are the only products capable of meeting the most exacting comfort standards at the same time as dissipating high thermal loads. This is made possible by the highly inductive Coanda ceiling air stream that rapidly mixes with the room air.

DAL358
> eccentric roller for optimum factory air flow setting, adjustable in situ
> monodirectional, bidirectional or rotating ceiling air stream
> square ceiling grid dimensions or round front plate

DRS
> rigid fins, 45° position

DAL359
> integral air guidance elements for individual air stream patterns
> square ceiling grid or round front plate

Tubular diffusers

With high-grade industrial-quality charm, tubular diffusers provide thermal comfort in occupied zones by means of clearly defined discharged air volumes.

RRA

> total system features hydraulic volumetric flow compensation
> precise air outlet positioning
> also available as a oval tubular diffuser

Slot diffusers

Precise air flow paths for the comfortable supply of air. For applications with temporarily cooled or heated air, and also featuring motorised adjustment of the discharge characteristics.

SAL 35
> ceiling diffuser
> 35 mm profile width
> eccentric roller

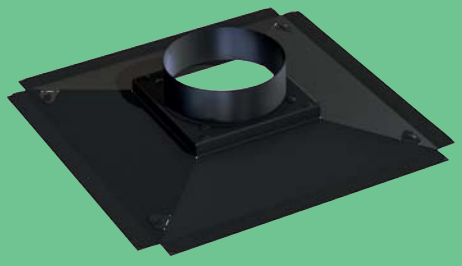
SAL 50
> ceiling diffuser
> 50 mm profile width
> eccentric roller

SDA
> floor diffuser
> load-bearing
> visible width 38/59 mm (one-/two-row)

Ceiling diffusers

Sophisticated ceiling systems require our adjustable air ducts, which produce the required flow patterns by a fixed pre-setting or motorised adjustment.

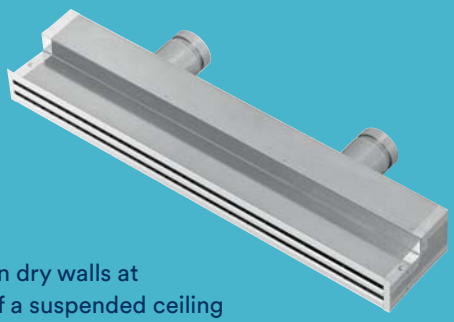
DIA
> inductive ceiling air stream
> square ceiling grid dimensions or round front plate



MDA
> diffuser for metal chilled ceilings
> invisible behind perforated metal chilled ceilings
> radial ceiling air stream

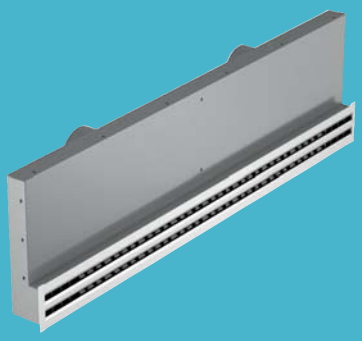
Combined diffusers

The **continuous slot appearance of supply air and extract air unit** is just as popular as its maintenance and cleaning concept. All combined diffusers are fitted with sound insulation backing. Despite being connected to the corridor ceiling, discussions within the office remain confidential.



KSH
> installation in dry walls at the height of a suspended ceiling

KS
> installation in ceiling recesses



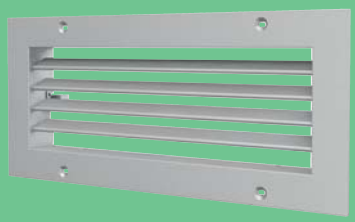
KSW
> installation in dry walls below a suspended ceiling

Grilles

As inconspicuous as they are, they nonetheless have a **massive influence on the comfortable and energy-efficient supply of air**. The decisive factor here is the control and spread of the air stream produced by the grille fins.

G341
> supply air and exhaust air grille
> fixed fins

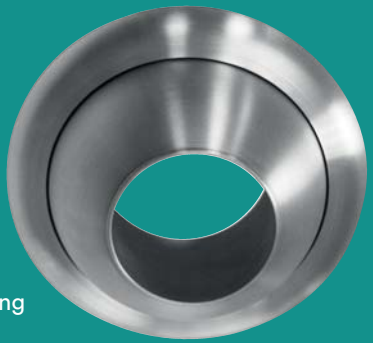
G328
> supply air and exhaust air grille
> fixed fins
> ball impact-proof



G311
> supply air and exhaust air grille
> variable fins

Wide-angle nozzles

Wide-angle nozzles are ideal wherever high air volumes are required. They are ideal for installation in series or as a battery.

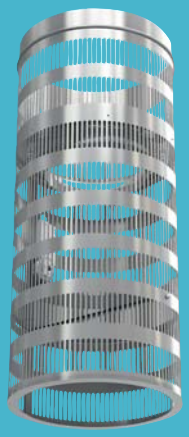


WWD
> rotatable, swivelling
> highly inductive

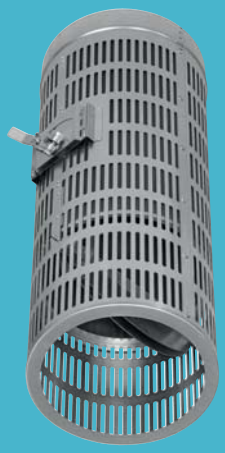
Industrial diffusers

Any heat produced in halls is dissipated by stratification ventilation. And large penetration depths are needed for heating. The requirements are diverse. So is our product range.

IVA
> displacement air diffuser in the shape of a column
> air stream direction can be varied depending on whether heating or cooling



IQA
> displacement air diffuser in the shape of a column
> air stream direction can be varied depending on whether heating or cooling

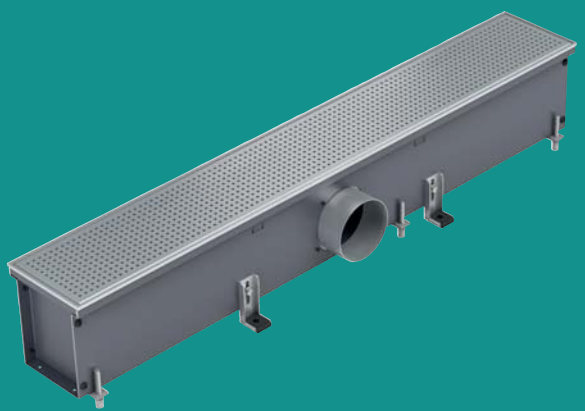


LDA
> displacement air diffuser
> swirl diffuser for variable penetration depths of 3 to 18 m

LDI
> swirl diffuser
> swirl blades for variable penetration depths of 3 to 32 m
> large air volumes of up to 12,000 m³/h

Floor diffuser

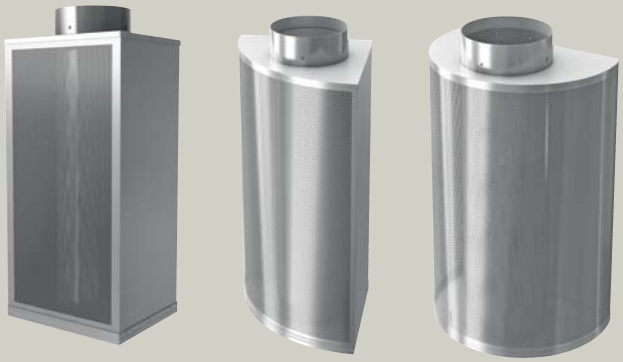
The LBQ displacement air diffuser creates a lake of fresh air, which is perceived as very pleasant and comfortable by the occupants of the room. The integrated perforated plates below the grille create a low-pulse and even inflow of supply air into the occupied zone.



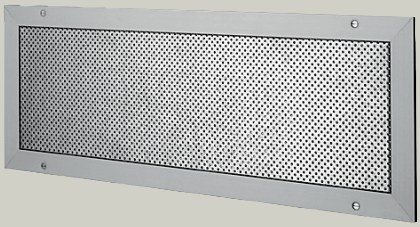
LBQ
> for raised floors
> perforated panel, roll-up or linear grille cover
> round or oval spigots

Displacement diffusers

Fed in at very low speed, displacement air diffusers produce silent air conditioning that cannot be felt and efficiently uses natural thermal processes.



QAL
> displacement air diffusers with plenum box
> linear version
> round version (360°, 180°, 90°)



QAL-K
> displacement air diffusers directly attached to the air duct

Overflow element

Extract air can be removed centrally in the corridor suspended ceiling or in adjacent rooms. **Overflow elements are used to discharge the extract air flows from several rooms.**

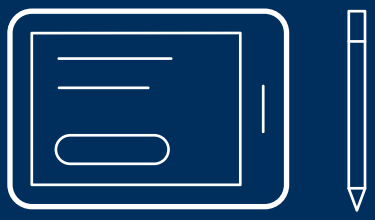
USE
> installed in dry walls
> low pressure loss
> sound barrier

Your digital product finder at www.kampmanngroup.com

Calculate your product online:
kampmanngroup.com > Products > Diffusers

Project support

Venkon + diffuser



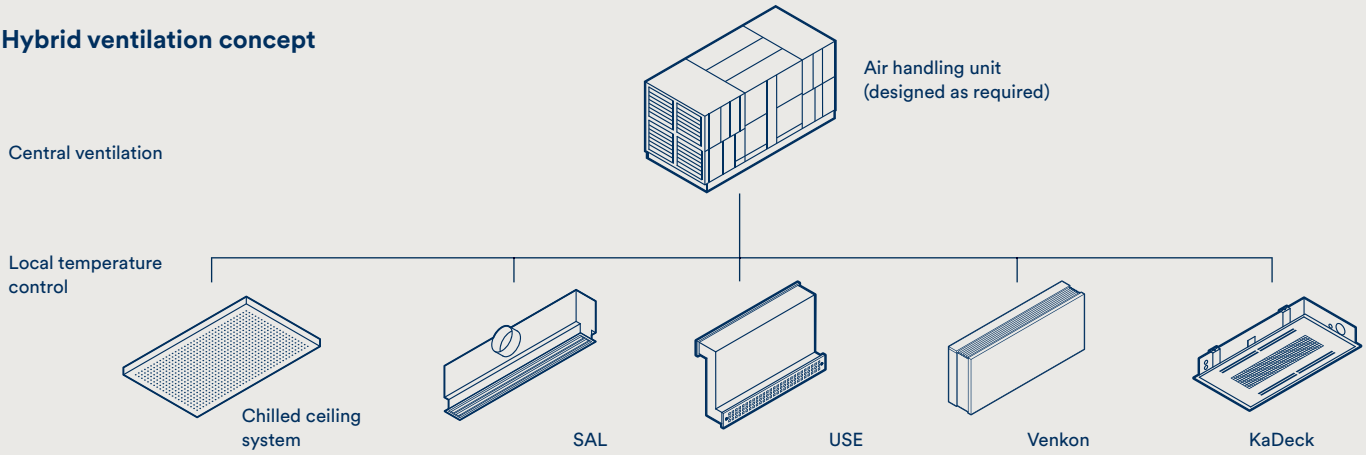
Many of our partners appreciate the wide range of options we offer as a system provider. Our **fan coil and diffuser combinations** are becoming increasingly popular. **Venkon or Venkon XL** units provide convenient solutions with **SAL slot diffusers**. We will gladly take on the individual design of your project. You can rely on the optimum combination of all factors, such as air volumes and pressure losses.

Structural acoustics

We measure and optimum our products in a **laboratory covering 2,000 m²** to achieve the very best solutions for you. **That applies to our standard product range and also to your customised product solution**. Let's consider the issue of structural acoustics. We analyse the acoustic properties of wall-mounted units in our hall laboratory with transmitter and receiver room. Get in touch with us about your next project. Whether you are looking for ventilation units, overflow elements or combined diffusers.

Genuine team players

Hybrid ventilation concept

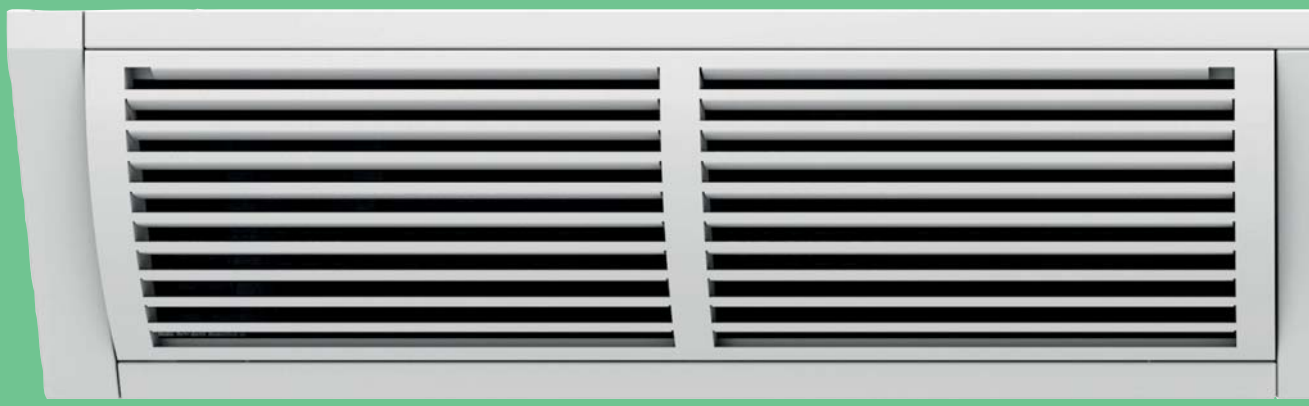


Individually designed air conditioning systems are realised by our NOVA-brand ventilation specialists, without the use of refrigerant and with adiabatic evaporation cooling. Of course, the combination with our diffusers is obvious. But you get so much more from this one-stop shop. **A system in which the primary air from the air handling unit is fed in through slot diffusers precisely incorporated in a chilled ceiling is ideal for occupied zones**. The extract air is discharged with overflow elements into adjacent corridor ceilings and is extracted centrally. In the room, fan coils, such as Venkon or KaDeck units, meet the residual heat requirements. Just one example of our countless system solutions. Let's discuss your project.

07 Door air curtains

Kampmann door air curtains provide optimum screening of air conditioned doorways. They reliably perform wherever the indoor and outdoor climate meet directly.

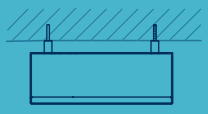
+ minimal energy losses by screening cold outside air in winter
+ use of accumulated heat from the ceiling area to screen air
+ versatile use in retail outlets of all kinds, malls and public buildings
+ in summer they aid air conditioning systems when operated without heat, reducing the ingress of warm outside air, saving on cooling output and energy costs
+ fewer draughts: workstations can be arranged closer to the entrance area, maximising the use of the floor space

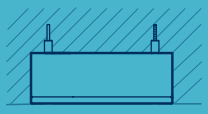


Comfortable interior climate with open doors

Open doorways are often simply necessary in the industrial sector. Open doorways help with the successful presentation of products in DIY stores and builder's merchants as well as shopping centres. Door air curtains are the product of choice to achieve this.

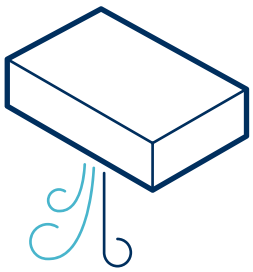
Visibly invisible





Opt for either our UniLine or Tandem door air curtains. **Visible below the ceiling or subtly recessed.** The air outlet and inlet are located on the underside of cassette UniLine or Tandem ceiling-mounted units.

Patented ambient and warm air curtain



Tandem and ProtecTor each produce two air curtains. **An unheated air curtain on the door side and a warm air curtain on the room side.** The ambient air curtain with its greater penetration depth pulls the warm air curtain down with it. **Air turbulence with the cold outside air occurs primarily with the ambient air curtain.**

Step this way

One small step and your customers will find themselves in a pleasant sales environment. Open doors lower customers' inhibition to enter a shop. And **the air screening effect enhances comfort in the entrance area**. Air curtains can also be used in malls and public buildings in a variety of ways.

Space gain at the doorway

Door air curtains contribute to improved comfort in doorways and loading areas. **Therefore, even with a hall layout, workplaces can be located closer to the doorway**. The same applies, of course, to the till area of retail stores.

Basic stage with the door closed

In **applications where the doors are only closed for short periods of time, continuous operation at a basic load state makes sense even with closed doors**. For reasons of comfort and efficiency. This is the only way to produce an adequate curtain of air as soon as the doors open. And, of course, we'll provide intelligent control as well.

Our door air curtains at a glance

Under-ceiling units

UniLine

> for controlled screening of cold air with open doors
> Silent AutoMotion: the self-regulating discharge flap increases the penetration depth of the air stream, particularly at lower fan stages
> air screening reduces energy losses and increases comfort in the entrance area

Tandem

> for controlled screening of cold air with open doors
> officially verified property right: European Patent EP 1462730
> up to 38 % energy savings through the patented separation of ambient and warm air streams (Tandem technology)

Ceiling cassette units

Cassette UniLine

> for controlled screening of cold air with open doors
> Silent AutoMotion: the self-regulating discharge flap increases the penetration depth of the air stream, particularly at lower fan stages
> air screening reduces energy losses and increases comfort in the entrance area

Tandem ceiling cassette unit

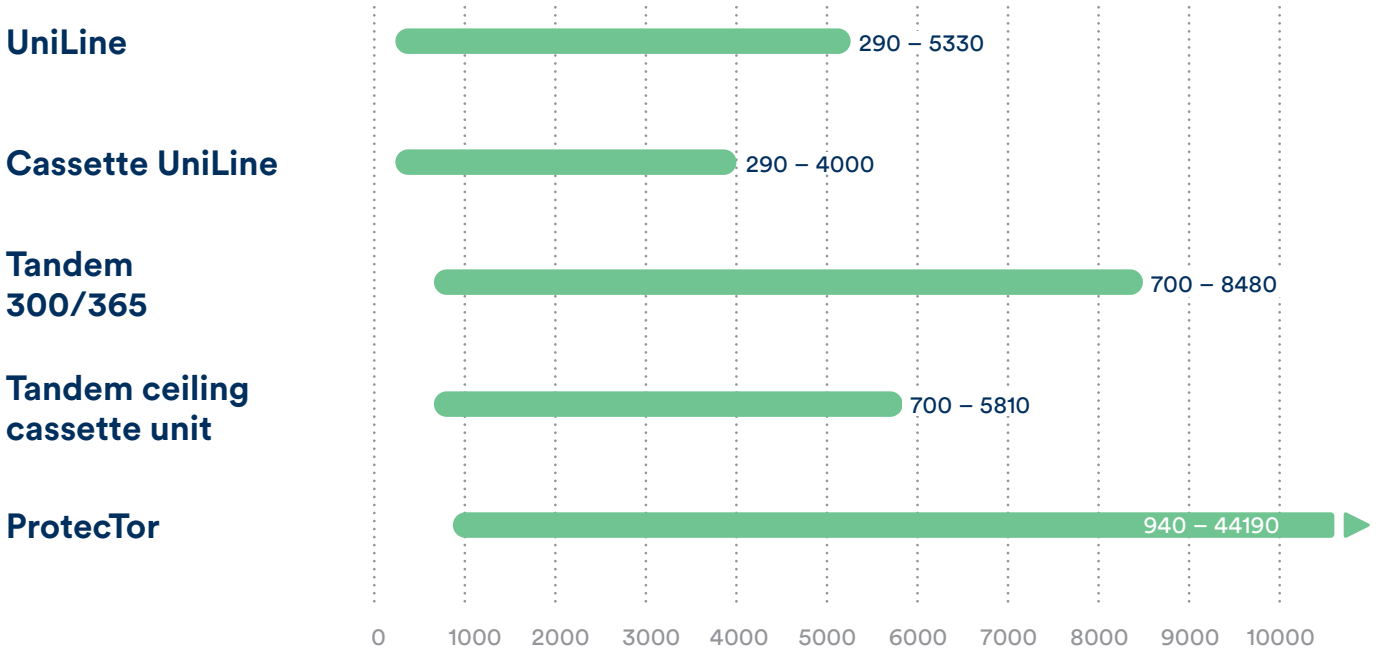
> for controlled screening of cold air with open doors
> officially verified property right: European Patent EP 1462730
> up to 38 % energy savings through the patented separation of ambient and warm air streams (Tandem technology)

Door screening

ProtecTor

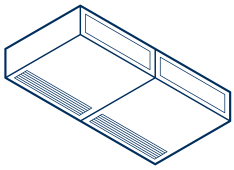
> up to 38 % energy savings through the patented separation of ambient and warm air streams
> Coanda effect between the ambient and warm air streams
> self-optimising back-up air stream when the fan speed changes

Air volumes



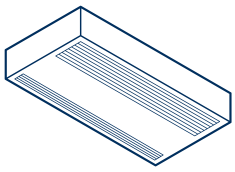
Values in m³/h **Air volume flow**

Always fits



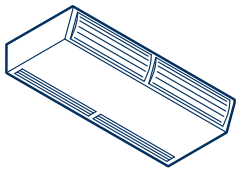
UniLine

Height	250
Depth	550
Length	1000 I 1500 I 2000 I 2500 I 3000



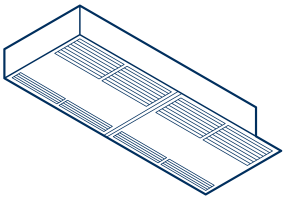
Cassette UniLine

Height	265
Depth	600 I 625
Length	1000 I 1500 I 2000 I 2500



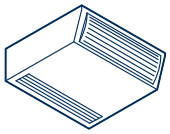
Tandem 300

Height	300
Depth	820
Length	1250 I 2000 I 2500 I 3000



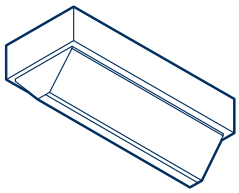
Tandem ceiling cassette unit

Height	300
Depth	800
Length	1200 I 1950 I 2450 I 2950



Tandem 365

Height	365
Depth	985
Length	1250 I 2000 I 2750

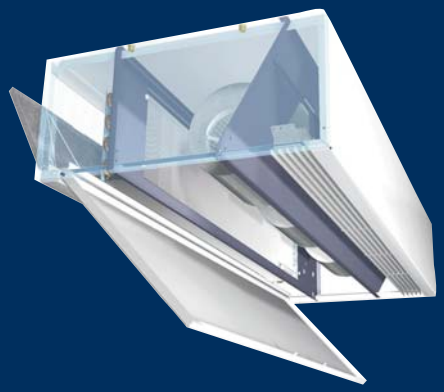


ProtecTor

Height	360
Depth	740 I 840
Length	2000 I 3000 I 4000 I 5000

Dimensions in mm

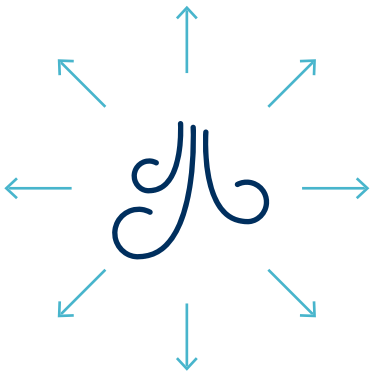
The in-house technician's friend



The maintenance concept for our UniLine is unrivalled. Make your in-house technician your friend: the large filter, including frame and intake grille, can be removed with ease. And what's more, **the entire base of the unit doubles as a revision flap**. Naturally, perfectly secured.

Whichever way you look at it

ProtecTor



Depending on the type of doorway (roller gate, vertical sectional gate, horizontal sectional gate) and the arrangement of workstations, **ProtecTor door air curtains can be designed with horizontal or vertical units with different nozzle geometries.** The aim is to position the air discharge opening as close as possible to the doorway for efficient screening.

Continuously variable control

EC technology

Of course, our built-in EC fans can be continuously variably controlled. **For efficient operation and only the noise emissions that are really necessary.**

Perfectly controlled by our compact controller or in the Kampmann **KaControlsystem**. Or integrated into the **building management system**? But of course. We'll take care of the interface.

SAM

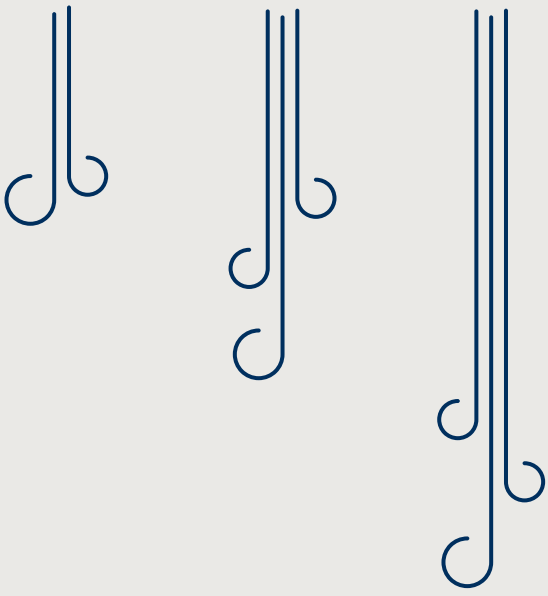
UniLine

SAM stands for Silent AutoMotion. In our UniLine EC door air curtains, the technology **ensures an even air discharge speed even at low operating stages.**

This means that UniLine door air curtains can usually be operated in the partial load range. How come? A self-regulating flap in front of the air outlet varies the cross-section of the outlet. The air route is narrowed at low operating stages, and the air speed remains high.

Discharge height

UniLine	Tandem	ProtecTor
2.3 – 3.0 m	2.7 – 4 m	3.5 – 4.5 m



The payback argument

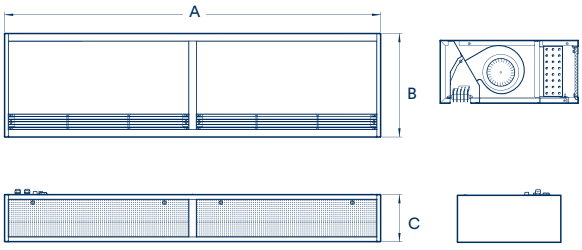
Our air curtains justify the investment after a short time. Certainly the UniLine stands out here with **its outstanding value for money**. It is the right choice for simple applications and therefore provides you with a convincing argument to persuade your customers.

Fast delivery

Short delivery times give you flexibility and speed. After all, your customers rely on you. **We deliver all standard units in the shortest possible time.** Put your trust in Kampmann.

It's your choice

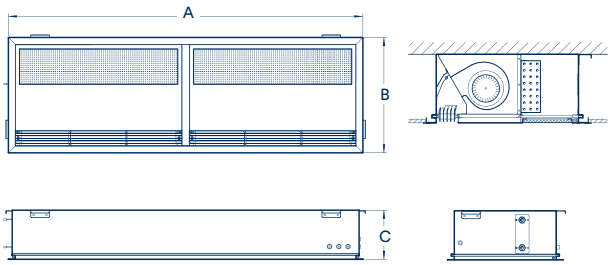
UniLine



Type	Size	Maximum door width	Depth B	Height C	Length A	Heat output [1]
		[mm]	[mm]	[mm]	[mm]	[kW]
EC fan	10	1000	550	250	1000	3.4 – 10.3
	15	1500	550	250	1500	5.3 – 19.5
	20	2000	550	250	2000	7.6 – 24.1
	25	2500	550	250	2500	9.6 – 33.7
	30	3000	550	250	3000	11.1 – 42.8
AC fan	10	1000	550	250	1000	6.7 – 10.2
	15	1500	550	250	1500	9.6 – 17.4
	20	2000	550	250	2000	13.1 – 24.2
	25	2500	550	250	2500	18.0 – 33.9
	30	3000	550	250	3000	24.1 – 44.2

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

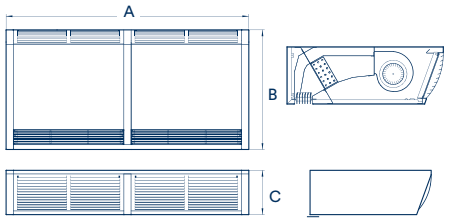
Cassette UniLine



Type	Size	Maximum door width	Depth B	Height C	Length A	Heat output [1]
		[mm]	[mm]	[mm]	[mm]	[kW]
EC fan	**10**	1000	600/625	265	1000	3.4 – 10.3
	15	1500	600/625	265	1500	5.3 – 19.5
	20	2000	600/625	265	2000	7.6 – 24.1
	25	2500	600/625	265	2500	9.6 – 33.7
AC fan	**10**	1000	600/625	265	1000	6.7 – 10.2
	15	1500	600/625	265	1500	9.6 – 17.4
	20	2000	600/625	265	2000	13.1 – 24.2
	25	2500	600/625	265	2500	18.0 – 33.9

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

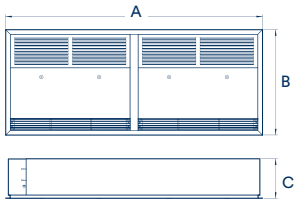
Tandem



Type	Size	Maximum door width	Depth B	Height C	Length A	Heat output [1]
		[mm]	[mm]	[mm]	[mm]	[kW]
Tandem 300	**12**	1250	820	300	1250	4.6 – 9.6
	20	2000	820	300	2000	8.3 – 18.5
	25	2500	820	300	2500	10.8 – 26.5
	30	3000	820	300	3000	13.5 – 30.1
Tandem 365	**12**	1250	985	365	1250	7.1 – 14.3
	20	2000	985	365	2000	12.8 – 27.8
	27	2750	985	365	2750	18.1 – 41.3

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

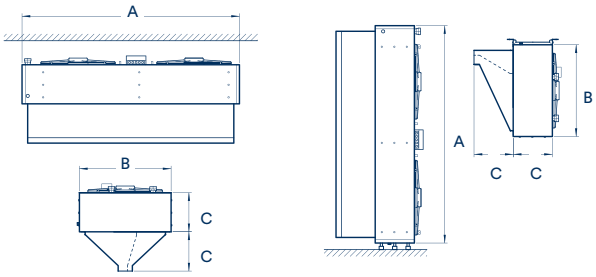
Tandem ceiling cassette unit



Size	Maximum door width	Depth B	Height C	Length A	Heat output [1]
	[mm]	[mm]	[mm]	[mm]	[kW]
12	1300	800	300	1200	4.6 – 9.6
20	2000	800	300	1950	8.3 – 18.5
25	2500	800	300	2450	10.8 – 26.5
30	3000	800	300	2950	13.5 – 30.1

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

Protector



Model	Max. discharge height/throw	Max. door width/height	Length A	Depth B	Height C	Heat output | Heat exchange model: Copper/ aluminium [1]	Steel, galvanised [1]	Steel, galvanised, cross-counterflow [2]
	[mm]	[mm]	[mm]	[mm]	[mm]	[kW]	[kW]	[kW]
EC fan	3500	2250	2000	740	360	15,0 – 49,7	15,0 – 49,7	10,0 – 27,9
	4500	2250	2000	840	360	22,4 – 71,3	22,4 – 71,3	17,1 – 49,1
	3500	3250	3000	740	360	22,4 – 74,5	22,4 – 74,5	15,0 – 42,0
	4500	3250	3000	840	360	33,7 – 107,3	33,7 – 107,3	25,4 – 73,1
	3500	4250	4000	740	360	30,0 – 99,4	30,0 – 99,4	19,9 – 56,0
	4500	4250	4000	840	360	45,1 – 143,5	45,1 – 143,5	34,0 – 97,9
	3500	5250	5000	740	360	37,3 – 123,9	37,3 – 123,9	24,8 – 69,4
	4500	5250	5000	840	360	56,2 – 179,0	56,2 – 179,0	42,3 – 121,9
AC fan	3500	2250	2000	740	360	33,3 – 43,3	33,3 – 43,3	24,1 – 27,0
	4500	2250	2000	840	360	53,0 – 66,7	53,0 – 66,7	42,2 – 48,6
	3500	3250	3000	740	360	50,0 – 65,0	50,0 – 65,0	36,7 – 41,1
	4500	3250	3000	840	360	79,5 – 100,3	79,5 – 100,3	65,8 – 72,4
	3500	4250	4000	740	360	66,6 – 86,7	66,6 – 86,7	48,8 – 54,7
	4500	4250	4000	840	360	106,0 – 133,8	106,0 – 133,8	87,4 – 96,8
	3500	5250	5000	740	360	83,3 – 108,3	83,3 – 108,3	61,0 – 68,0
	4500	5250	5000	840	360	132,5 – 167,2	132,5 – 167,2	109,8 – 120,6

[1] at LPHW 75/65 °C, t_{L1} = 20 °C
[2] at LPHW 80/40 °C, t_{L1} = 20 °C

08 Convectors

Our low-temperature convectors are durable and responsive. Find the right version for private or commercial use, wall-mounted or as a free-standing heater. Opt for Kampmann steel convectors to fit within cladding by others or within our PowerKon range of casings. Ultra-responsive: the PowerKon nano with fan assistance.

+ Maximum flexibility thanks to a wide range of products with or without casing.
+ All convectors are suitable for low temperature operation.
+ PowerKon nano with EC tangential fan for ultra-fast responsiveness with low noise emissions

Surprisingly versatile

You'll never compromise on quality when heating with convectors, whether in the form of architecturally made-to-measure convectors, discreet radiators or as free-standing design elements. All Kampmann convectors are designed with high-quality heat carriers.

Optimised for low water temperatures

PowerKon + F

Admittedly, trench convectors are the go-to units under floor-to-ceiling windows or glazed façades. But this is not always possible, or perhaps you have a different design in mind. Then PowerKon +F convectors are the solution for your project. Ultra-discreet and equally effective, thanks to their **high-quality copper-aluminium heat carriers. And durable with phosphated, powder coated sheet steel covers**. But our be-all and end-all is finding the perfect solution for you.

Easy to install and maintenance-friendly

We always have our ear to the market. We know from talking to tradespeople and designers that **sturdy metal casings** are of great importance to them and that **a simple maintenance concept** will keep installers and users happy for many years to come. Who would we be if we didn't take that to heart? You can rely on our convectors.

Unobtrusive

PowerKon +W

If our products had a character of their own, then the PowerKon + W would be the selfless type. It fades into the background and really never wants to be noticed. At least not visually. However, its inner life is as multifaceted as its design is restrained. Our copper-aluminium heat carrier also **performs its service in absolute silence in this wall-mounted convector**.

But even if you take a closer look at its exterior, say during installation or maintenance, you learn to appreciate the details. **The one-piece casing, for example, can be fitted and dismantled without the need for a tool**. Or its air discharge grille – either perforated or in the form of a linear grille. Take the time to get to know it.

It's your choice

PowerKon nano

We have incorporated our **entire knowledge and expertise of trench technology into the PowerKon nano**. The **EC tangential fan** provides optimum flow through the copper-aluminium heat exchanger. And yet its operating noise is scarcely audible, our trademark with our trench technology and fan coils. And this free-standing convector cannot fail to attract admiring glances.

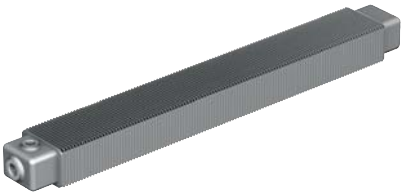
Its high-quality casing can be designed in any RAL colour and the design roll-up grille is extremely fine.

Our convectors at a glance

Convectors wall-mounted

PowerKon + W

> convector optimised for use with low water temperatures
> fast response due to low water content
> low surface temperature



Steel convector

> heating with LPHW
> natural convection
> in casings or trenches (in-floor installation)

Convectors free-standing

PowerKon + F

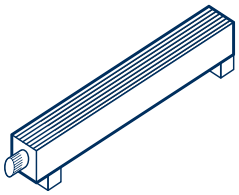
> convector optimised for use with low water temperatures
> fast response due to low water content
> low surface temperature

PowerKon nano

> free-standing and versatile
> usual quietness and high performance
> EC fan - efficient in terms of noise and energy

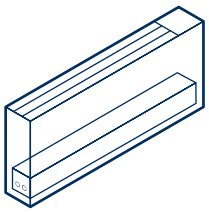
Always fits

PowerKon + F



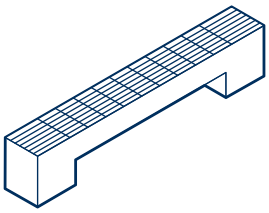
Height	80 I 130
Depth	130 I 180 I 230
Length [1]	600 – 2600

PowerKon + W



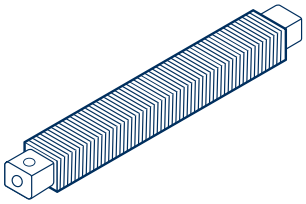
Height	250 I 400 I 550 I 700
Depth	70 I 120 I 170 I 220
Length [1]	600 – 2600

PowerKon nano



Height	160
Depth	160
Length	950 I 1150 I 1400 I 1800 I 2150

Steel convector

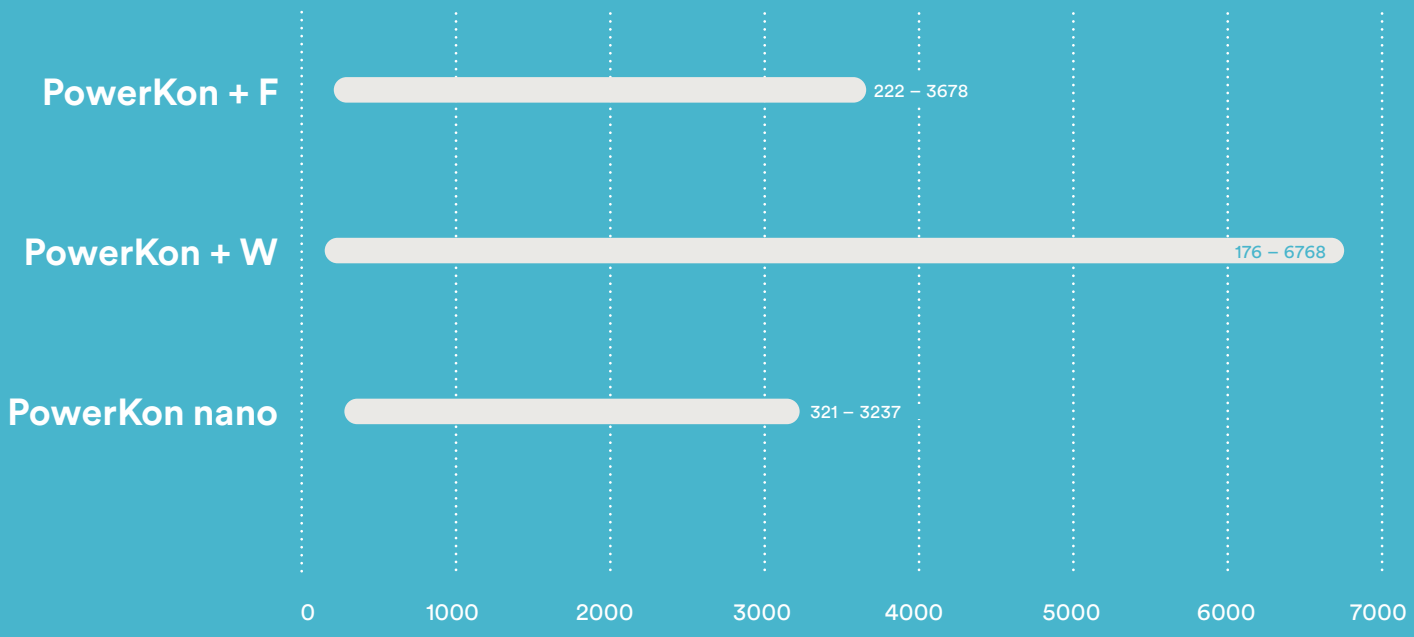


Height	70 I 150
Depth	50 I 100 I 150 I 200 I 250 I 300
Length [2]	500 – 5000

Dimensions in mm

[1] 200 mm increments
[2] 100 mm increments

Heat output



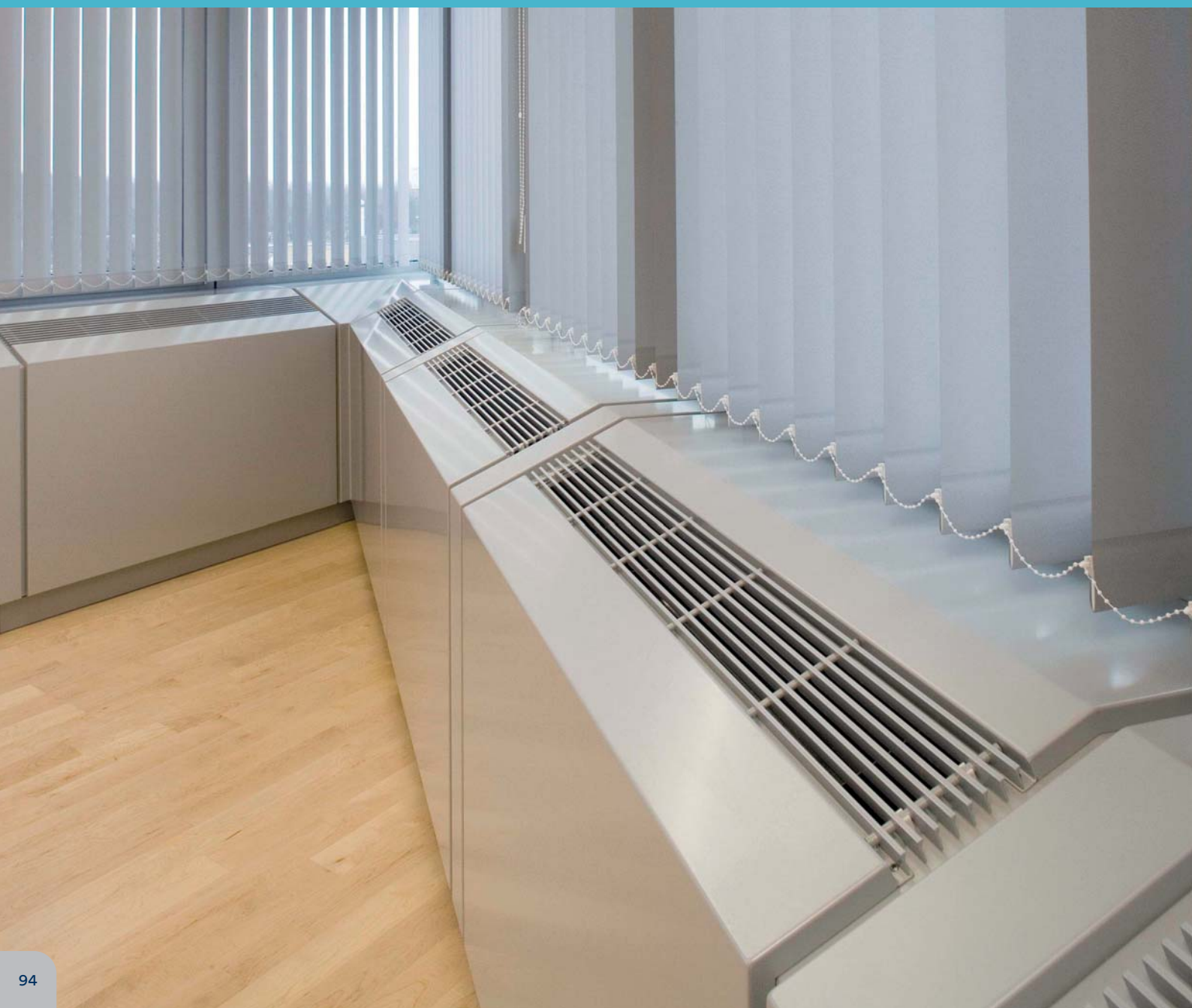
Values in W (with LPHW 75/65 °C, t_{Room} = 20 °C)

Heat output

Casings

Wall-mounted models for Kampmann convectors and fan coils

Our customised casings are robust and multifunctional. **It all comes down to precise site measurement, which we would be happy to provide.** It's how we provide the basis for your individual wall casings for natural convection-based and fan-assisted systems. And if you also wish to incorporate comfortable radiant heat, the **front panels can also be designed to carry water**. Designed to perfection, taking into account structural elements like columns, and concealing structural tolerances discreetly in the shadow joints between individual casing units. **Incidentally, cable harnesses are invisible** and electrical and data trunking is integrated behind hinged front panels. Any other requirements? **Is the casing to serve as a window sill** or does it need to be angled? No problem at all. And, of course, every unit comes with matching air discharge grilles, manufactured as linear grilles.



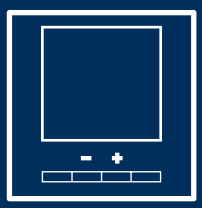
Steel is simply good

Steel convectors are sturdy, customisable and sensibly integrated timelessly into your project. Kampmann will manufacture units in a variety of lengths, widths and heights – either straight or even curved. **Designed as low-temperature units, steel convectors are perfect for providing full-room air conditioning or as a module for "transitional heating"**. And yet, at the same time, it is virtually invisible. The convectors are discreetly integrated into structural wall casings or are hidden in underfloor trenches covered by design roll-up grilles. Steel convectors are also durable, reliable and silent. In the best sense, they leave you in peace year after year. This is because the **galvanised steel fins are carefully protected against corrosion**.

Control options

Simple systems, simple control

Room thermostat
flush-mounted

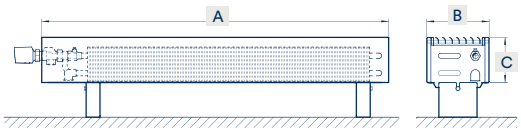


Clock thermostat
flush-mounted

We offer various control units in conjunction with thermoelectric actuators. For instance the flush-mounted room thermostat provides **a setpoint setting with main switch and separate switching input for night setback**. The **clock thermostat with display** provides even greater convenience. **Configure three individual operating modes with up to six switching stages for each day.**

It's your choice

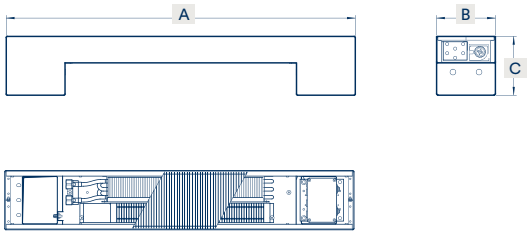
PowerKon + F



Height C	Depth B	Length A	Heat output [1]
[mm]	[mm]	[mm]	[W]
80	130	600 – 2600	222 – 1292
80	180	600 – 2600	310 – 1802
80	230	600 – 2600	466 – 2712
130	130	600 – 2600	313 – 1821
130	180	600 – 2600	461 – 2685
130	230	600 – 2600	632 – 3676

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

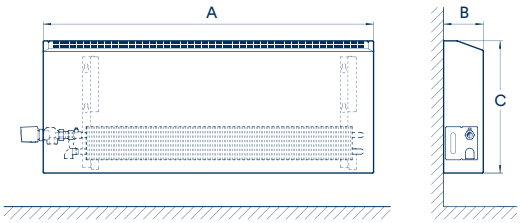
PowerKon nano



Width B	Height C	Length A	Heat output [1]
[mm]	[mm]	[mm]	[W]
160	160	950	321 – 851
160	160	1150	497 – 1317
160	160	1400	646 – 1713
160	160	1800	971 – 2574
160	160	2150	1221 – 3237

[1] at LPHW 75/65 °C, t_{L1} = 20 °C, with fan-assisted convection

PowerKon + W



Height C	Depth B	Length A	Heat output [1]
[mm]	[mm]	[mm]	[W]
250	70	600 – 2600	176 – 1044
250	120	600 – 2600	354 – 2100
250	170	600 – 2600	529 – 3143
250	220	600 – 2400	711 – 4221
400	70	600 – 2600	197 – 1169
400	120	600 – 2600	417 – 2477
400	170	600 – 2600	637 – 3785
400	220	600 – 2400	891 – 5289
550	70	600 – 2600	216 – 1284
550	120	600 – 2600	482 – 2860
550	170	600 – 2600	752 – 4468
550	220	600 – 2400	1021 – 6065
700	70	600 – 2600	224 – 1330
700	120	600 – 2600	515 – 3057
700	170	600 – 2600	801 – 4755
700	220	600 – 2600	1140 – 6768

[1] at LPHW 75/65 °C, t_{L1} = 20 °C

09 Decentralised ventilation units

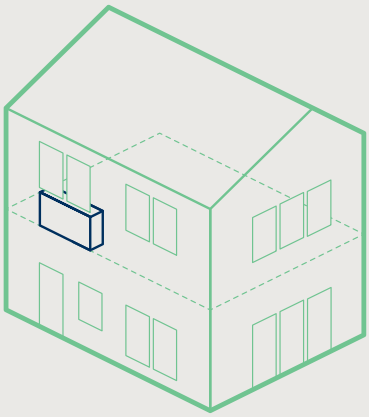
It is with good reason that local ventilation units are popular in building refurbishments. Local units allow the room to breathe again at the latest when retrofitted façade insulation cuts off the air. And they do so with relatively minimal intervention to the structure of the building. Local solutions are becoming more popular in new buildings as well. No wonder, because when it comes to individual room air conditioning, they have many advantages over their big brother, the centralised unit.

+ healthy indoor climate with precise air change
+ range of units from pure ventilation to full air conditioning units
+ a wide range of products from sill and façade units to trench heaters variants
+ local ventilation including heat recovery

Our decentralised ventilation units at a glance

		Supply air	Extract air	Heating	Cooling	Heat recovery	Moisture recovery	Secondary air	2- and 4-pipe
Cabinet units	 **WZA** Supply air volumetric flow 1000 m³/h	✓	✓	×	×	✓	✓	×	×
Sill units	 **BZAS** Supply air volumetric flow 110 m³/h	✓	✓	✓	✓	✓	✓	✓	✓
Façade units	 **FZAS** Supply air volumetric flow 120 m³/h	✓	✓	✓	✓	✓	✓	✓	✓
Trench heaters	 **UZAS** Supply air volumetric flow 120 m³/h	✓	✓	✓	✓	✓	×	✓	✓
	 **UZA** Supply air volumetric flow 120 m³/h	✓	✓	✓	✓	×	×	×	✓
	 **UZS** Supply air volumetric flow 120 m³/h	✓	✓	✓	✓	×	×	✓	✓

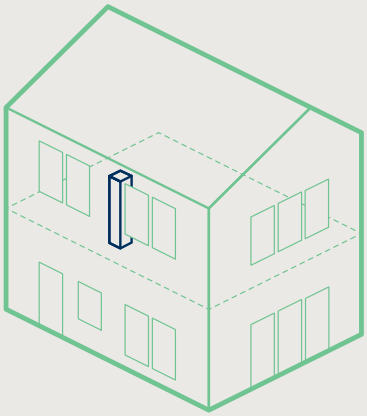
Installed



Sill units

> Sill units are installed under windows. There is minimal ingress into the shell of the building. The perfect choice for refurbishments.

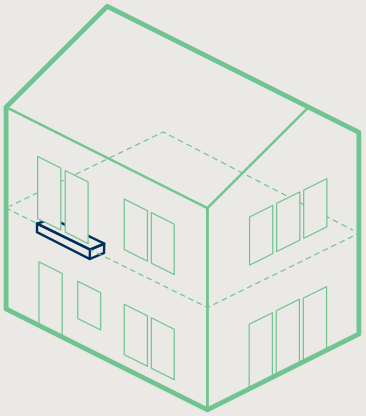
> Used in conjunction with our diffusers, architects love the freedom of being able to encase sill units within customised furniture.



Façade units

> When you opt for decentralised full air conditioning in new buildings, you opt for façade ventilation.

> From the outside, the cladding options are so varied that façade units are often regarded as design elements rather than technical building services units.



Trench technology

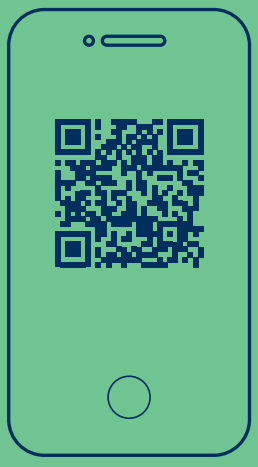
> It doesn't get more space-saving and unobtrusive than this. There's something for everyone from simple solutions to high-end units with heat recovery and mixed air operation.

> And they come with a wide range of design grille covers.

All units are optionally available with factory-fitted controls, room control units and interfaces for all popular building automation systems.

Your digital product finder at www.kampmanngroup.com

Calculate your product online:
kampmanngroup.com > Products > Decentralised Ventilation Units



Finally ventilation in schools

Healthy, automatic and quiet

Mechanical ventilation in schools is finally getting the attention it deserves to contain disease waves. However, let's not forget **that a low concentration of CO_2 is needed throughout the year for concentrated work**.

Adequate supply air and very low noise emissions are mandatory with modern ventilation technology. Our **WZA operates in nominal air mode with a sound pressure level of only 35 dB(A)** and delivers 800 m³/h – naturally with 100% outside air and heat recovery.

One-button operation enables users to intuitively switch through Automatic and Shock ventilation modes, as well as Stage 1 and Stage 2.

Mixed air versus displacement air

There's a definite answer in classrooms

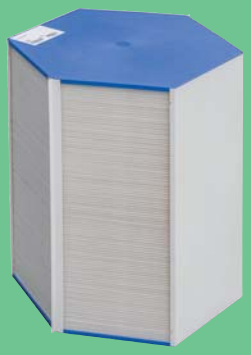
Displacement ventilation is fantastic in offices: a temperature-controlled air volume for around four people is fed in at a low pulse rate and at a slight undertemperature close to floor level. This air rises by the thermal effects of machines and people, displacing the room air.

This is not possible in classrooms! The larger volume of cool supply air for 25 to 30 students would be extremely uncomfortable. The teacher would quickly switch off the unit. What is more, the low-pulse supply of air would be incapable of ventilating the classroom evenly and fully throughout the year.

Mixed ventilation is therefore the right choice in schools. It feeds in large volumes of air along the ceiling of the room, which then sink down into the entire room at low air speed and flush through it. With no draughts!

Moisture recovery

Decentralised school ventilation unit WZA



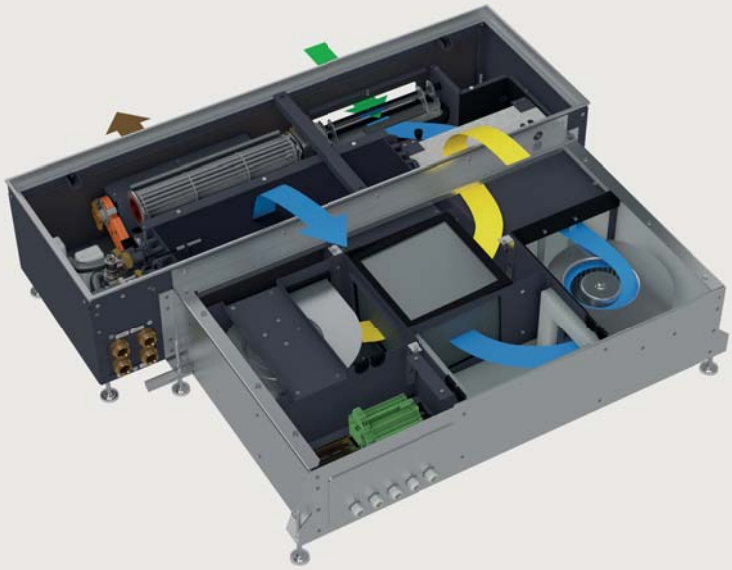
This component has it all: the enthalpic exchanger in the WZA recovers a large part of the heat or cold from the extract air. **But to a greater extent, by recovering moisture, it also protects the students' natural viral defences**. We now know that adequate humidity in a room protects people's nasal mucous membranes, strengthening their own viral barrier. The residual risk of infection is thus halved.

Incidentally, the enthalpic exchanger does not produce condensate and so is easer to install and operate.

High-end ventilation from the floor

UZAS

The decentralised ventilation unit UZAS is packed with high-quality components for **supply air, extract air, secondary air, mixed air, WRG, heat recovery, heating and cooling**. The underfloor unit is placed directly along the façade, usually under floor-to-ceiling windows. The air routing is designed for maximum comfort. **Only a 345 mm wide design grille is visible**, which can be easily removed. This means that all components can also be removed for maintenance.



Decentralised ventilation in offices

The demands for a comfortable working environment are becoming ever greater

How do employees in offices work in a focused and motivated way? Fortunately, operators, investors and, above all, architects of office buildings are asking this question when it comes to design.

Because, after all, well-thought-out structural concepts all contribute to enhancing performance at the workplace. **A pleasant working environment might include, for example, a clear view outside.** The use of glazed façades has therefore been very popular for some time. It allows plenty of daylight to flood into the offices, but at the same time increases the heat load. The IT systems do the rest. A challenging environment for efficient air conditioning, which also needs to take into account increased demands on the part of employees. Temperature, air movement, acoustic stress as well as other air quality factors, such as humidity and CO_2 content – all this needs to be controlled with air conditioning systems for ventilation, cooling and heating.

Ventilation systems are now standard in new buildings. Legal requirements and energy efficiency standards now mean that opening windows for ventilation is no longer a legitimate alternative. But **external influences, such as street noise or fine dust and pollen in the outside air, make it clear that ventilation through open windows does not go hand in hand with a pleasant working environment**. Decentralised units are increasingly becoming the systems of choice for this kind of application. They have decisive benefits over central ventilation units. **Individual room temperature control and ventilation** is often more energy-efficient and, to a large extent, more comfortable for employees. Façade units or underfloor versions are particularly popular in new buildings.

Decentralised ventilation units are unrivalled when ventilation needs to be retrofitted to existing buildings. In these cases, sill units or façade units are often the best choice, as there is minimal ingress into the structure of the building.

Air humidity

Increasingly in focus

People's well-being is a pretty good indicator of whether something is wrong with the room air. However, far too rarely is it recognised that it is the air humidity that is actually too low. **The malaise usually stems from mucous membranes that are too dry. As a result, viruses and bacteria have a much easier time breaking through the immune system, and infections can develop more quickly**. Maintaining a 50% humidity level can prevent mucous membranes from drying out. People with allergies and asthma also quickly appreciate good air humidity. **The decentralised ventilation units BZAS and FZAS with their enthalpic heat exchangers provide for 65 % humidity recovery levels.** They deliver all the aspects crucial for comfortable air conditioning.

Piggy back

The BZAS basic unit controls the **supply air and extract air** through the openings in the building shell. Its **enthalpic heat exchanger** recovers both heat and moisture. BZAS is designed to be used **with Venkon fan coils**. A total of three EC fans then provide for operation with supply air, secondary air and mixed air.

10 Chillers and heat pumps

Water-based systems for heating and cooling buildings are future-proof. Minimal refrigerant is used when chillers and heat pumps are combined with room units. And only in the unit, not in the building.

+ Cold water-based systems are becoming even more efficient and convenient with the option of low-noise operation, e.g. during the night hours.
+ Many models feature the low GWP refrigerant R32 for a 75 % reduction in the greenhouse effect.
+ The EC fans can be controlled continuously variably and thus provide precisely the required output. No more and no less.
+ Many of our KaClima R32 units have an integrated circulation pump, safety valve and dirt trap (available in some cases as an option on other models).


R32
KaClima

Our chillers and heat pumps at a glance

For installation outdoors

KaClima R32 AO 4 – 30 kW

> R32 refrigerant to reduce the CO_2 equivalent by up to 75 %
> leaving water temperature control
> energy efficiency class A+++ in accordance with (EU) Delegated Regulation No. 811/2013

KaClima R32 AO 22 – 55 kW

> R32 refrigerant to reduce the CO_2 equivalent by up to 75 %
> leaving water temperature control
> energy efficiency class A+++ in accordance with (EU) Delegated Regulation No. 811/2013

KaClima R32 AO 53 – 85 kW

> R32 refrigerant to reduce the CO_2 equivalent by up to 75 %
> constant flow temperature control for consistent output by consumers
> energy efficiency class A+++ in accordance with (EU) Delegated Regulation No. 811/2013

KaClima R290 (Propan)

> refrigerant R290 to reduce the CO_2 equivalent
> constant flow temperature control for consistent output by consumers
> energy efficiency class A++ in accordance with (EU) Delegated Regulation No. 811/2013

KaClima AO 50 – 124 kW

> two separate cooling circuits for maximum operating reliability
> constant flow temperature control for consistent output by consumers
> low starting currents

KaClima > individually customised project solution

R32

The "low GWP" refrigerant

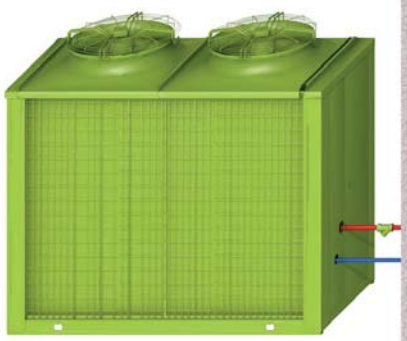
Reducing the volumes of refrigerant traded (phase down) made it necessary to look for alternatives. The product of choice is known as **R32 and boasts low GWP (Global Warming Potential). The cooling circuit is also more efficient**, so that our KaClima models achieve A+++ or A++ energy efficiency classes. The quantities required are also 30 % lower than the R410A refrigerant used up to now.

The thing about hydraulics

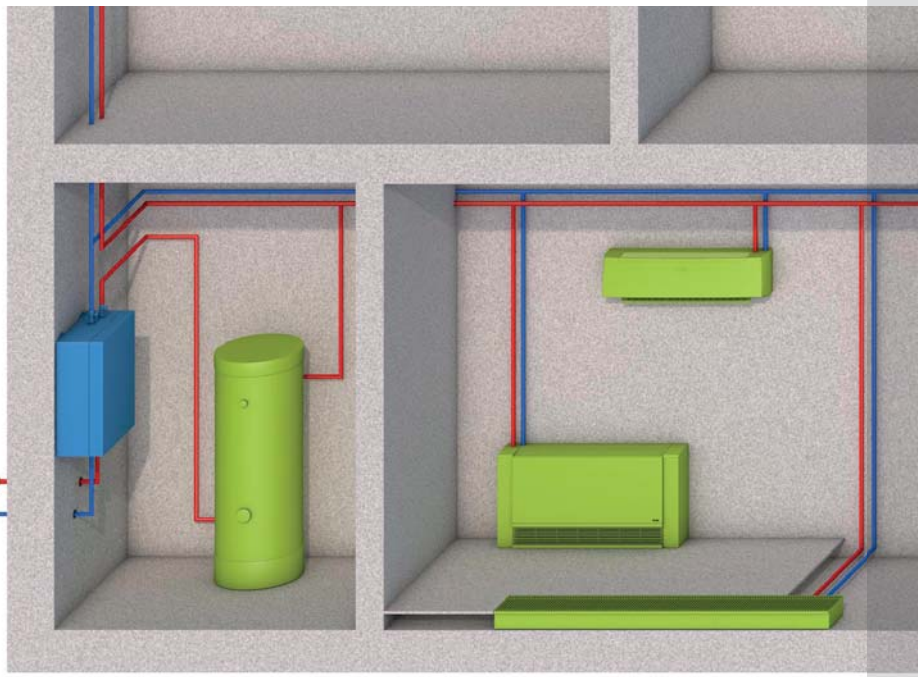
....it's easier than you think.
With our hydraulic box

Save design and assembly time with **all the essential components, such as system isolators, pump and safety valve, vapour-tightly insulated in a shock-proof housing**. Available in three combinable sizes with 12, 20 and 35 kW.

Use of the hydraulic box



Chiller/Heat pump
(installed outdoors here)

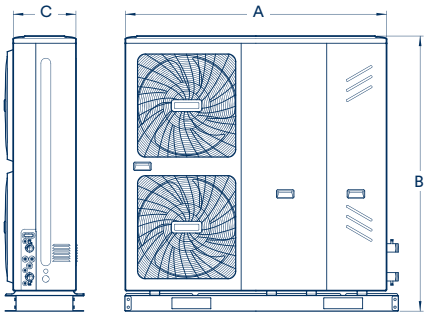


Plant room with hydraulic box
and hot water boiler

Connected room units, such as Venkon fan coils, Katherm HK or KaCool (shown here in occupied zones, but also suitable for use with industrial unit heaters)

It's your choice

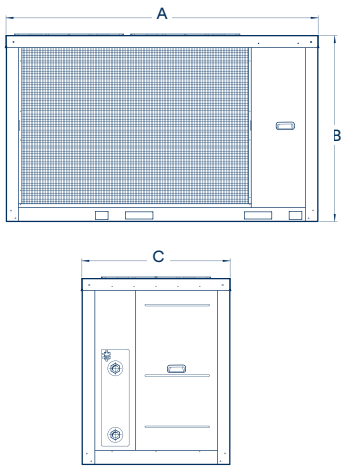
KaClima R32 AO 4 – 30 kW



Size	Width A	Height B	Depth C	Cooling output [1]	Heat output [2]
	[mm]	[mm]	[mm]	[kW]	[kW]
21	429	718	1295	4,7	4,3
31	429	718	1295	7,0	6,3
41	526	865	1385	7,5	8,1
51	526	865	1385	8,2	10,0
61	526	865	1385	11,5	12,4
71	526	865	1385	12,4	14,1
81	526	865	1385	14,0	16,0
91	440	1558	1129	17,0	18,0
101	440	1558	1129	21,0	22,0
121	440	1558	1129	26,0	26,0
141	440	1558	1129	29,5	30,0

[1] at CHW 7/12 °C, outside temperature 35 °C
[2] at LPHW 45/40 °C, outside temperature 7 °C

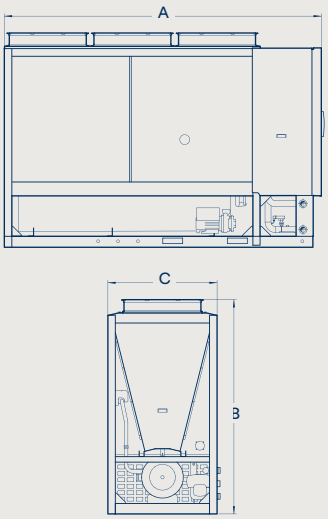
KaClima R32 AO 22 – 55 kW



Size	Width A	Height B	Depth C	Cooling output [1]	Heat output [2]
	[mm]	[mm]	[mm]	[kW]	[kW]
101	1005	1176	1876	22.3	24.3
121	1005	1176	1876	25.8	27.1
141	1005	1176	1876	29.0	31.4
162	1057	1339	2218	42.0	48.6
182	1057	1339	2218	48.0	54.0
222	1057	1339	2218	55.0	62.0

[1] at CHW 7/12 °C, outside temperature 35 °C
[2] at LPHW 45/40 °C, outside temperature 7 °C

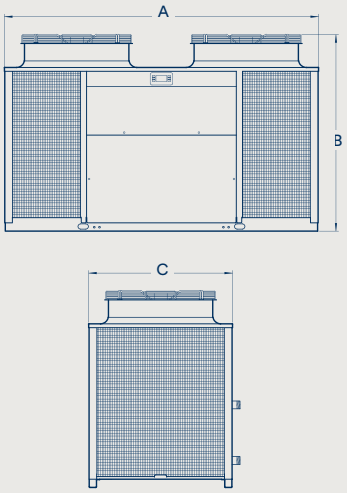
KaClima R32 AO 53 – 85 kW



Size	Width A	Height B	Depth C	Cooling output [1]	Heat output [2]
	[mm]	[mm]	[mm]	[kW]	[kW]
1182	2152	1130	2337	53.3	53.0
1202	2152	1130	2337	58.9	66.0
1252	2155	1130	3190	72.0	79.3
1302	2155	1130	3190	77.7	84.7
1352	2155	1130	3190	85.0	91.0

[1] at CHW 7/12 °C, outside temperature 35 °C
[2] at LPHW 45/40 °C, outside temperature 7 °C

KaClima AO 50 – 124 kW



Size	Width A	Height B	Depth C	Cooling output [1]	Heat output [2]
	[mm]	[mm]	[mm]	[kW]	[kW]
182	2400	1540	1100	49.6	56.0
202	2400	1540	1100	59.3	68.4
252	2400	1790	1100	69.5	78.1
302	2400	1790	1100	82.2	93.0
352	1100	1890	3600	92.5	106.0
402	1100	1890	3600	106.0	123.0
452	1100	1890	3600	120.0	140.0

[1] at CHW 7/12 °C, outside temperature 35 °C
[2] at LPHW 45/40 °C, outside temperature 7 °C

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11
Chilled ceiling systems

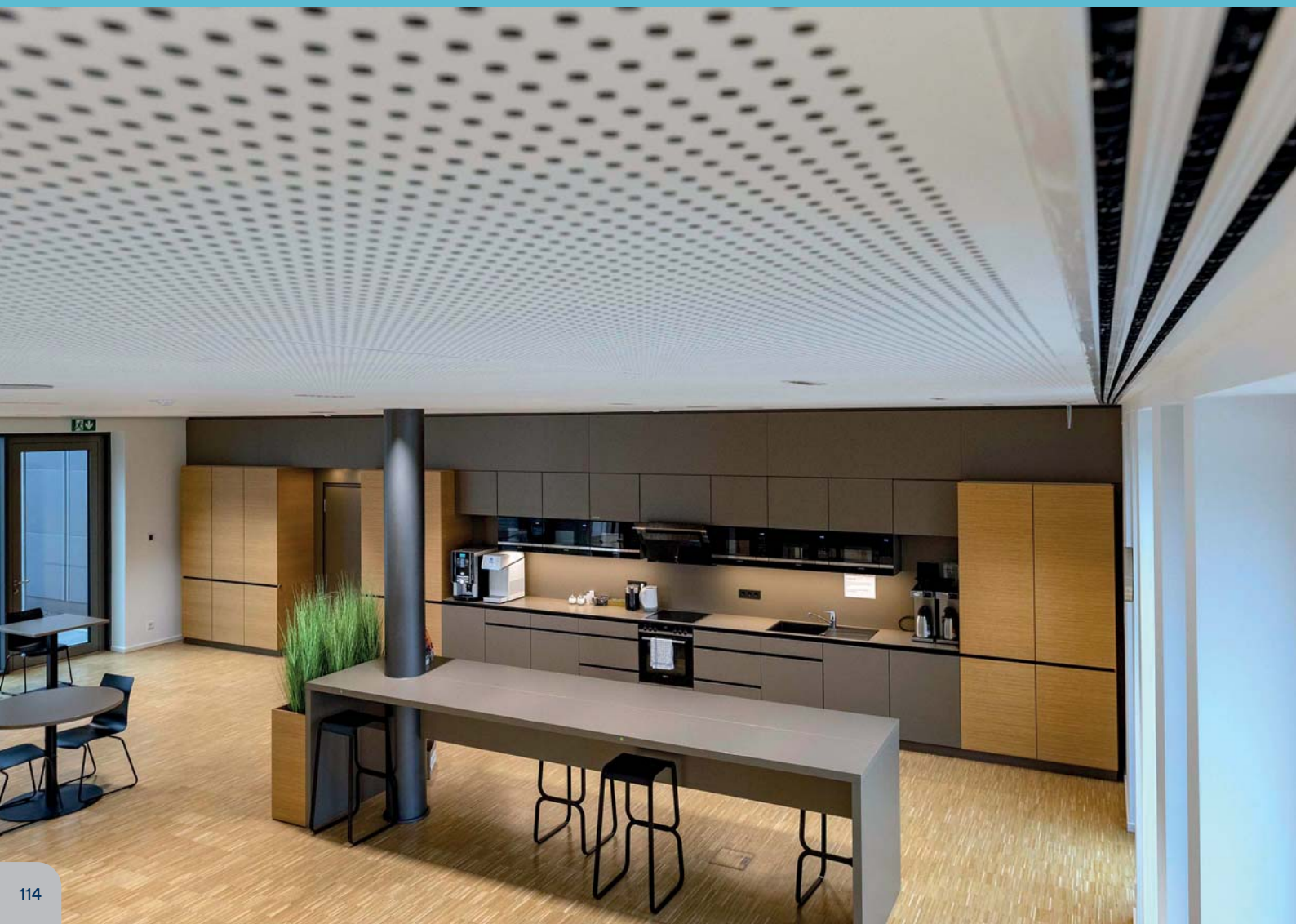
Isn't it paradoxical that our biggest product is, at the same time, one of the most flexible systems ever? There are always a lot of things happening on the ceiling. Lighting, sprinklers, smoke detectors, air vents. It all comes down to planning to ensure that there is enough space for our pipework and profiles. We can look after that on your behalf.

+ totally silent cooling and heating
+ maximum architectural freedom with metal and gypsum board ceilings
+ doubles as an acoustic ceiling for stress-free offices
+ available as a chilled ceiling or chilled sail
+ combined with ventilation products or decentralised units to cover peak loads
+ design and complete installation by Kampmann, on request

A question of belief? Gypsum board or metal ceiling

There are several ways of approaching this issue.
Metal ceilings are the most efficient way.
Gypsum board ceilings are the most flexible way.

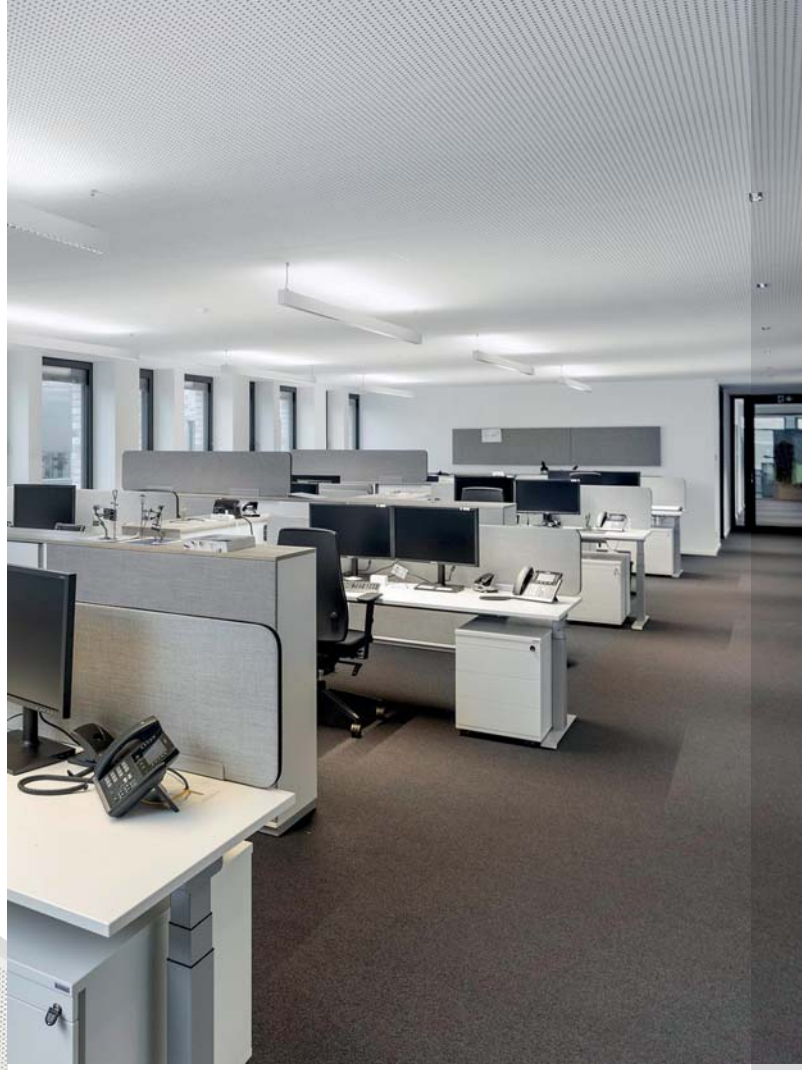
And we'll explain why.

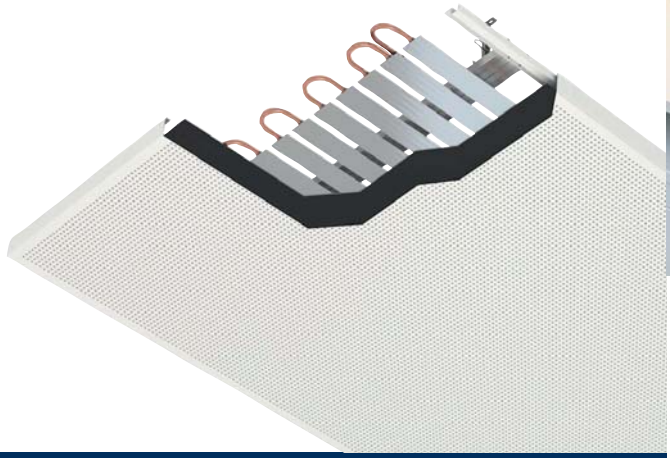


Metal ceiling

Just go the whole hog

In this case, the visible ceiling of the room is made of **metal cassettes the radiation power of which no gypsum board ceiling comes close to**.
And its interior is also made of metal.
The cooling and heating pipes are copper.
The conductivity profiles are made of aluminium.





Doing one thing without leaving the other

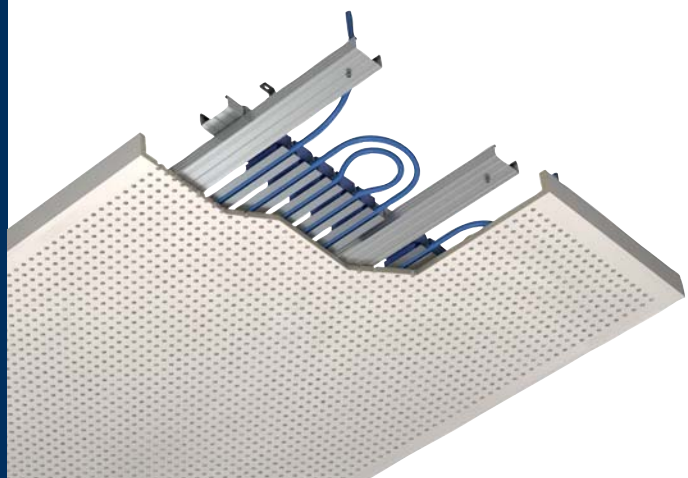
Chilled ceiling + Katherm

Sensible combinations of systems make us happy. And you too probably. Combine your chilled ceiling with Katherm trench technology for a comfortable heating system. At the same time, you'll be boosting your system in terms of its responsiveness speed.

Gypsum board

and much more

Don't write off gypsum board yet. Let's take a closer look. **The cooling and heating pipework is made of plastic. The pipes are laid more closely together than in a metal chilled ceiling**. But this version is worth looking at because of its aluminium conductivity profiles that produce the surface contact with the gypsum board. And especially when it comes to price comparisons.



Our chilled ceiling systems at a glance

Chilled ceilings

Gypsum board ceiling

> with cooling or heating pipes consisting of a plastic-aluminium thermal conductivity profile
> Nonius hangers
> C-ceiling profiles and quick-release cross connectors

Metal ceiling

> with cooling or heating pipe made of copper-aluminium thermal conductivity profile

Chilled sail

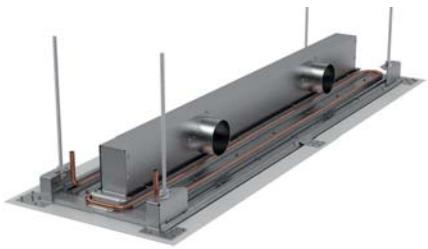
Gypsum plaster sail

> additional lateral edge for visual privacy
> excellent individuality through in-situ assembly

Metal sail

> additional lateral edge for visual privacy
> high convective output

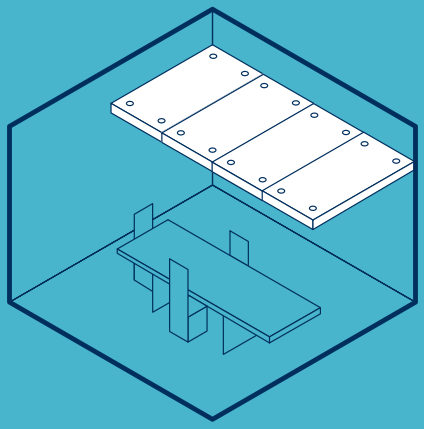
Chilled beams



DIKAL

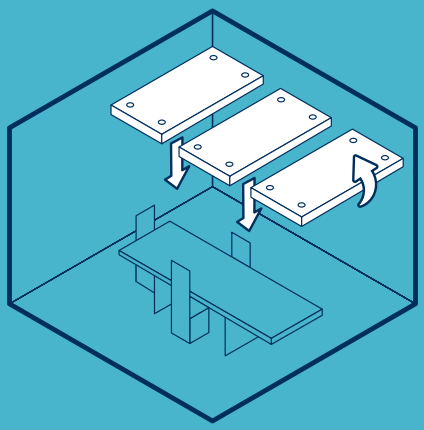
> induction unit with heat exchanger-based design
> draught-free air guidance
> fast and safe installation in gypsum board or post cap ceilings

Installed



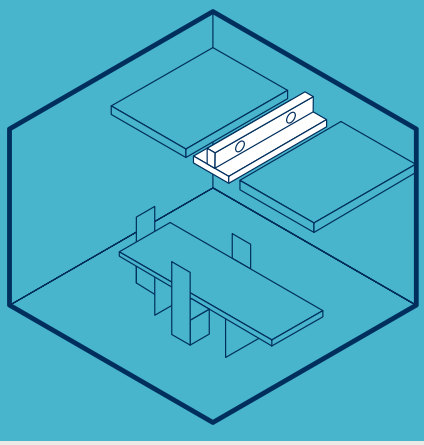
Chilled ceilings

> unlike chilled sails, chilled ceilings have a closed surface
> 60 % of the heat transfer is by radiation exchange



Chilled sail

> higher cooling output
> consists of multiple suspended ceiling elements
> air circulation around the chilled sail up to the ceiling slab (normally free convection)



Chilled beams

> can be arranged as a visually continuous strip
> ventilation with preconditioned supply air
> fast mixing with the room air

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Calculate your product online:
kampmanngroup.com > Products >Chilled Beams

You still need to finish the ceiling

It might sound offhand but it's true. In terms of the **extensive ceiling work that nonetheless needs to be done during construction, the work involved in 'activating' the ceiling is a drop in the ocean.** Radiant ceilings and chilled sails save operating costs with minimal investment.

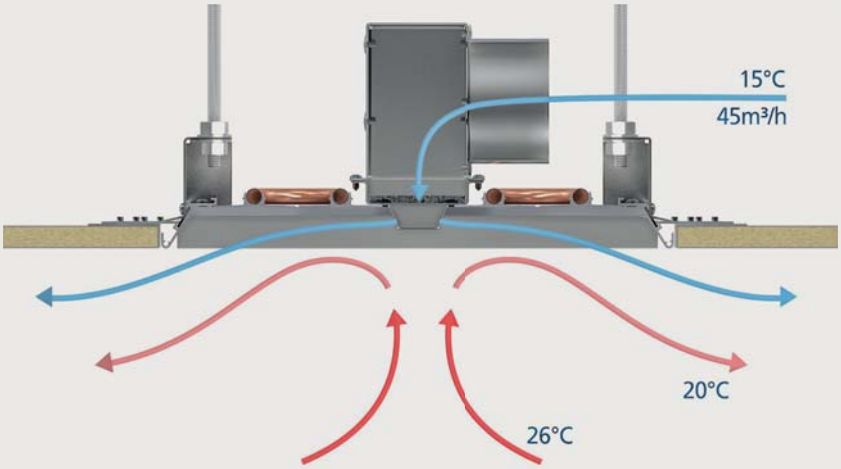
Perforated? Primary air!

Diffuser for perforated metal chilled ceilings and sails

When used in conjunction with a perforated metal ceiling, the MDA produces a draught-free Coanda air stream across the ceiling. It is completely invisible to the users of the room. It is simply **placed on the metal ceiling** from above with magnetic straps without the need for any tools. **However, you can also leave the installation to us.**

An extra boost of fresh air

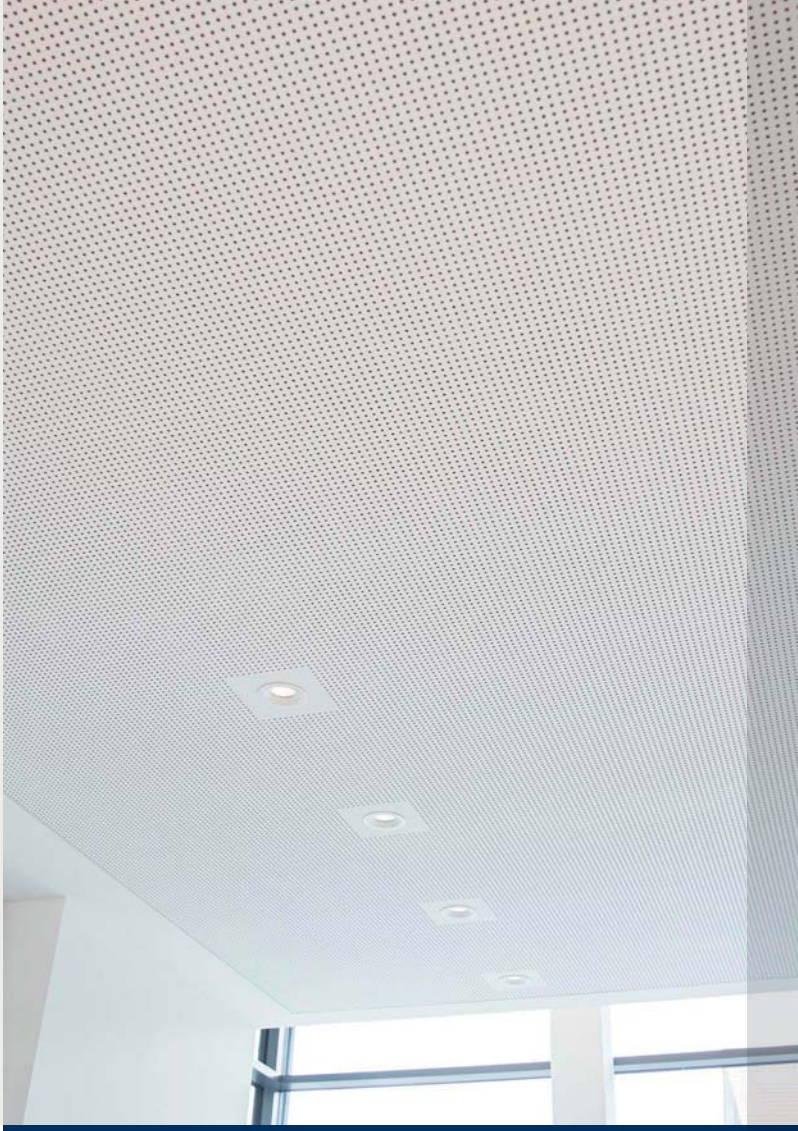
Top-class chilled beams



There are exacting demands placed on office environments. Polluted air or draughts often wreak their revenge. That's why chilled ceilings combined with chilled beams are particularly popular in offices. **While the main cooling load is dissipated over the surface, primary air is fed in with an additional induction cooling effect.**

Many air outlet openings behind the cooling fins ensure a draught-free air routing along the ceiling of the room. The cool air only falls into the room at a reduced speed.

Acoustic ceiling



It has been proven that in addition to temperature control, room acoustics also have an influence on employee satisfaction and on the performance of office employees.

The following are critical:
> silence for concentrated work
> understanding speech in large rooms and
> good sound insulation

Absorption is the means of damping sound produced in the room itself. **Perforated chilled ceilings are ideal for this. Perforated chilled sails are the perfect answer to this.**

Unforeseen synergies

Chilled ceiling systems with decentralised units

For example with the shallowest fan coil on the market. The KaDeck is VDI 6022-compliant. Available in various designs it can be installed on the wall or in the middle of the room. Of course, always without producing draughts. The entire base of the unit doubles as a revision flap.

Consultation

Just give me a price. Your local contact would be happy to answer this. He doesn't really even have to do the sums. **Because we have translated our experience from many chilled ceiling projects into a rough calculation tool.**

Just a few details from you and you'll get an answer you can really work with. Incidentally, we never gamble.

Not with chilled ceilings nor with our other product ranges. You can bet on that.

kampmanngroup.com/service →

12
Gravity cooling

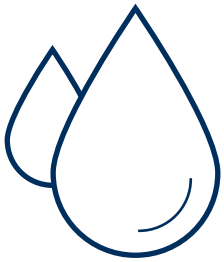
Our VertiCool gravity cooling system is as simple as it is ingenious. The room air is cooled just under the ceiling and falls down in a shaft, causing more and more air to flow through the heat exchanger. Why does this work so well? Because cold air does just that. And it does so absolutely silently.

+ flow by gravity alone
+ silent cooling without fans
+ low operating costs, thanks to a simple system without moving parts
+ minimal ingress into the building structure
+ custom-made design of all parameters including the sizing of internal shafts
+ installation by Kampmann

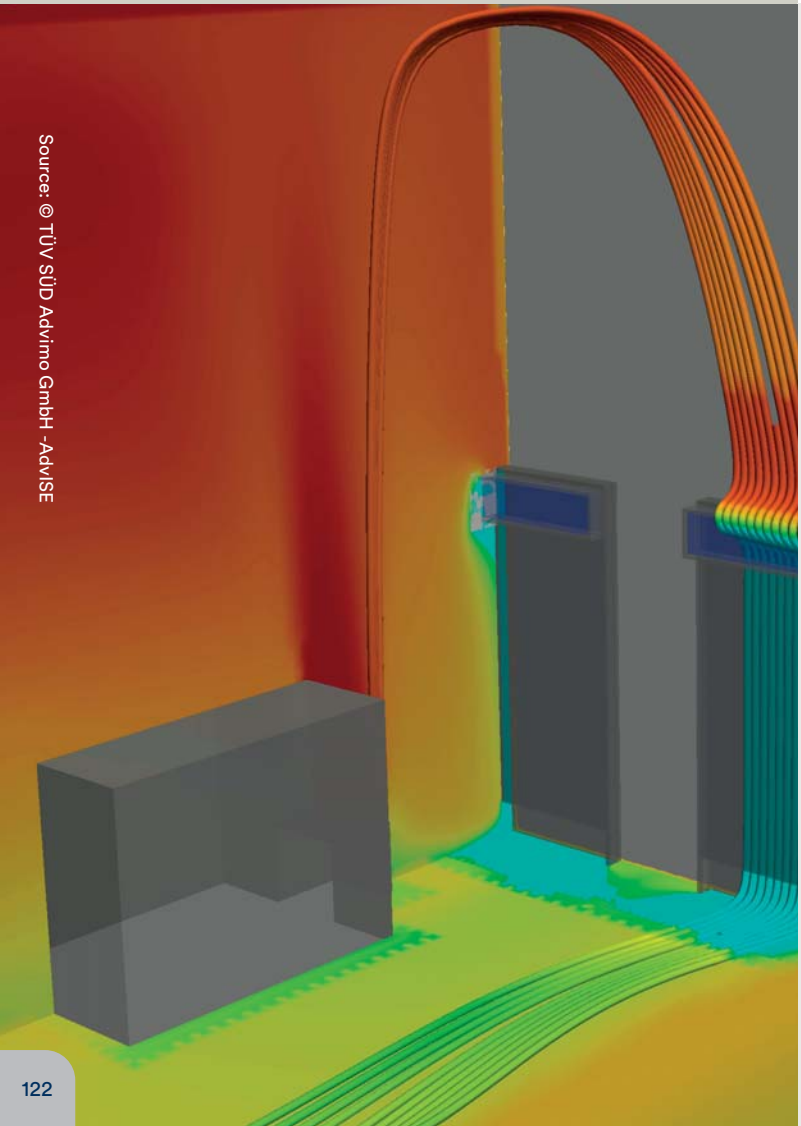
As simple as it is ingenious

Always tailored precisely to the requirements of the building, VertiCool provides effective secondary air cooling in commercial and industrial buildings and offices.

Low operating cost and maintenance



Cooling with cold water is a sensible solution in terms of energy consumption. **VertiCool offers dry cooling** and functions without moving components, like fans. It is therefore a **low-maintenance system**.



Source: © TÜV SÜD Advimo GmbH -AdvISE

Heat dissipation

The performance of the system is largely determined by the following parameters:

- temperature gradient in the hall
- shaft height/width/depth
- type of heat exchanger and air outlet

We will then adapt these parameters in the technical design to the specific requirements of the hall or office. **Any machines in industrial premises and IT in offices affect the cooling load of a room**. Once again, here, our aim is to find the optimum solution for your project. The more detail you can give us about the conditions on site, the more precisely we can design the VertiCool gravity cooling system. To ensure that your customer is satisfied and that everyone experiences a pleasant working atmosphere.

Using gravity

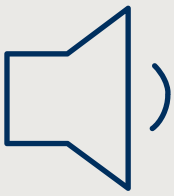
VertiCool

VertiCool is a gravity cooling system.
The coil located at the upper end of a vertical shaft cools the internal air flowing through it, which then falls into the shaft. **The vacuum this produces in the shaft ensures that secondary air is permanently drawn by suction through the coil**. The cooled air is discharged into the room at ground level.

Design

The shaft is constructed on the basis of our complete documentation by a dry walling contractor or your choice, or alternatively we can construct it. The airtight installation of the shaft and compliance with the partial shafts we have designed is critical for the correct operation of the system. As a rule, our work dovetails seamlessly with the other trades on site.

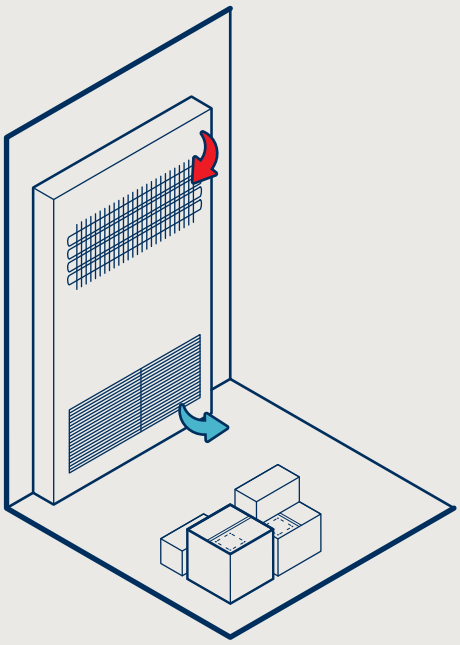
Silent cooling



The principle of gravity cooling makes it possible to operate VertiCool **without fan assistance**.
The natural convection guarantees totally silent cooling.

Our gravity cooling systems at a glance

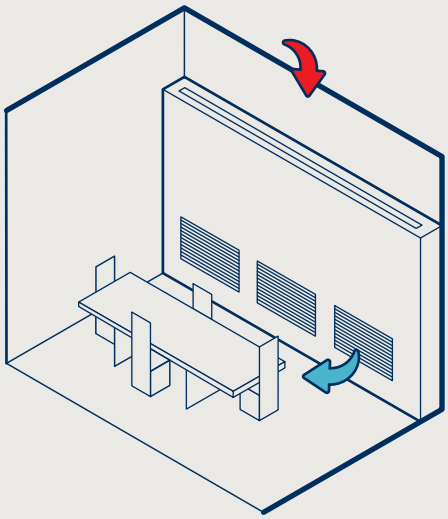
Industrial application



> large coil in front of the shaft for high cooling capacity for hall cooling

> utilisation of the total height of the hall for effective flow through the coil and shaft

Occupied zone



> internal invisible coil for a flat front panel

> design grilles for comfortable air supply with low flow velocity

For new buildings and refurbishments

The system is **particularly attractive for refurbishment projects** due to its minimal ingress into the building structure. The drop shaft of the VertiCool sits proud of the internal walls of the building. But its strengths come into their own in new buildings too.

Project workflow

To ensure a clean handover of the baton, we will ask the necessary questions and document everything carefully to ensure seamless cooperation with the other trades involved.

Specification of available installation areas and performance by the customer.

↓

Kampmann design.

↓

Documentation of the shaft dimensions for the subcontractor* by Kampmann.

↓

Construction of the shaft by the subcontractor* or by Kampmann.

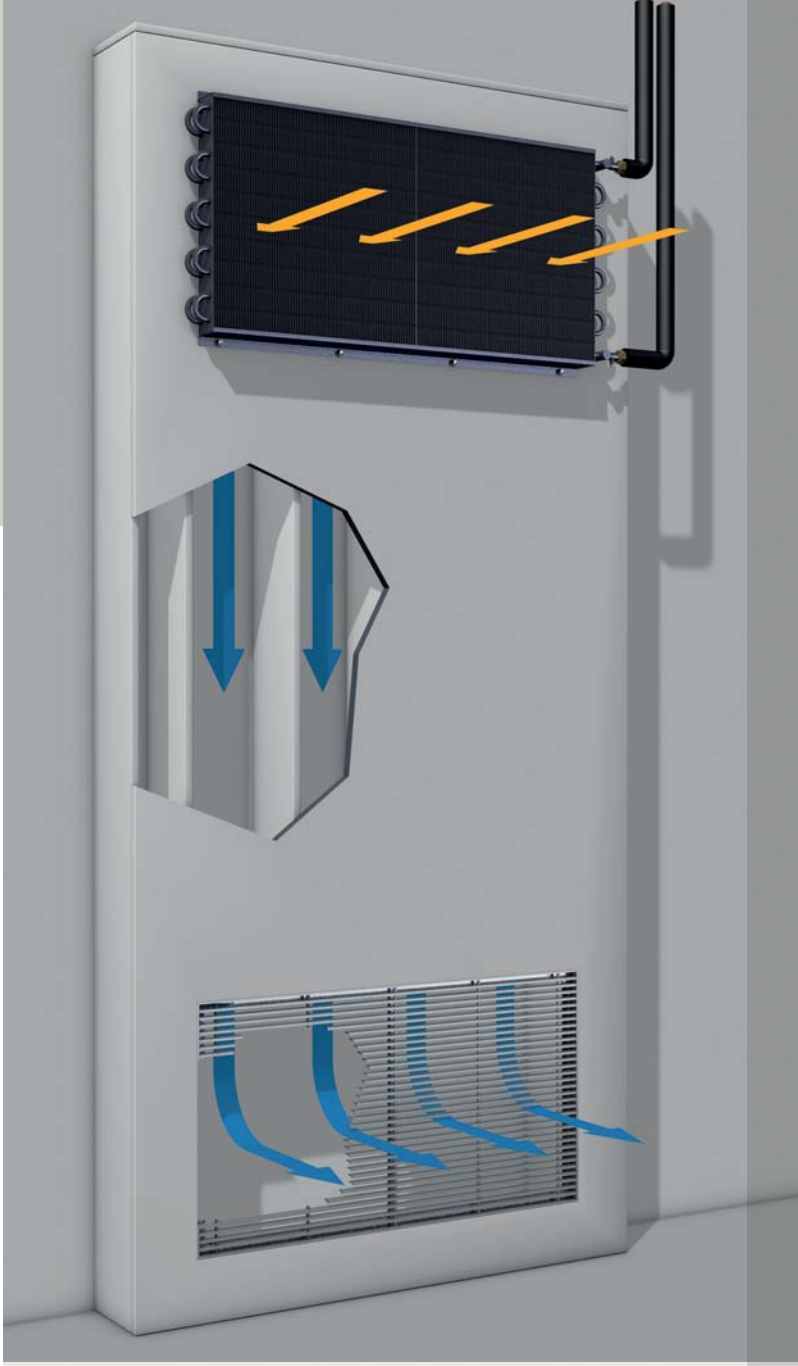
↓

Specification of the coil and air outlet.

↓

Installation and connection of pipework, coil and air outlet by the plant engineering company.

* Downstream trades, including dry walling, ductwork and furniture companies



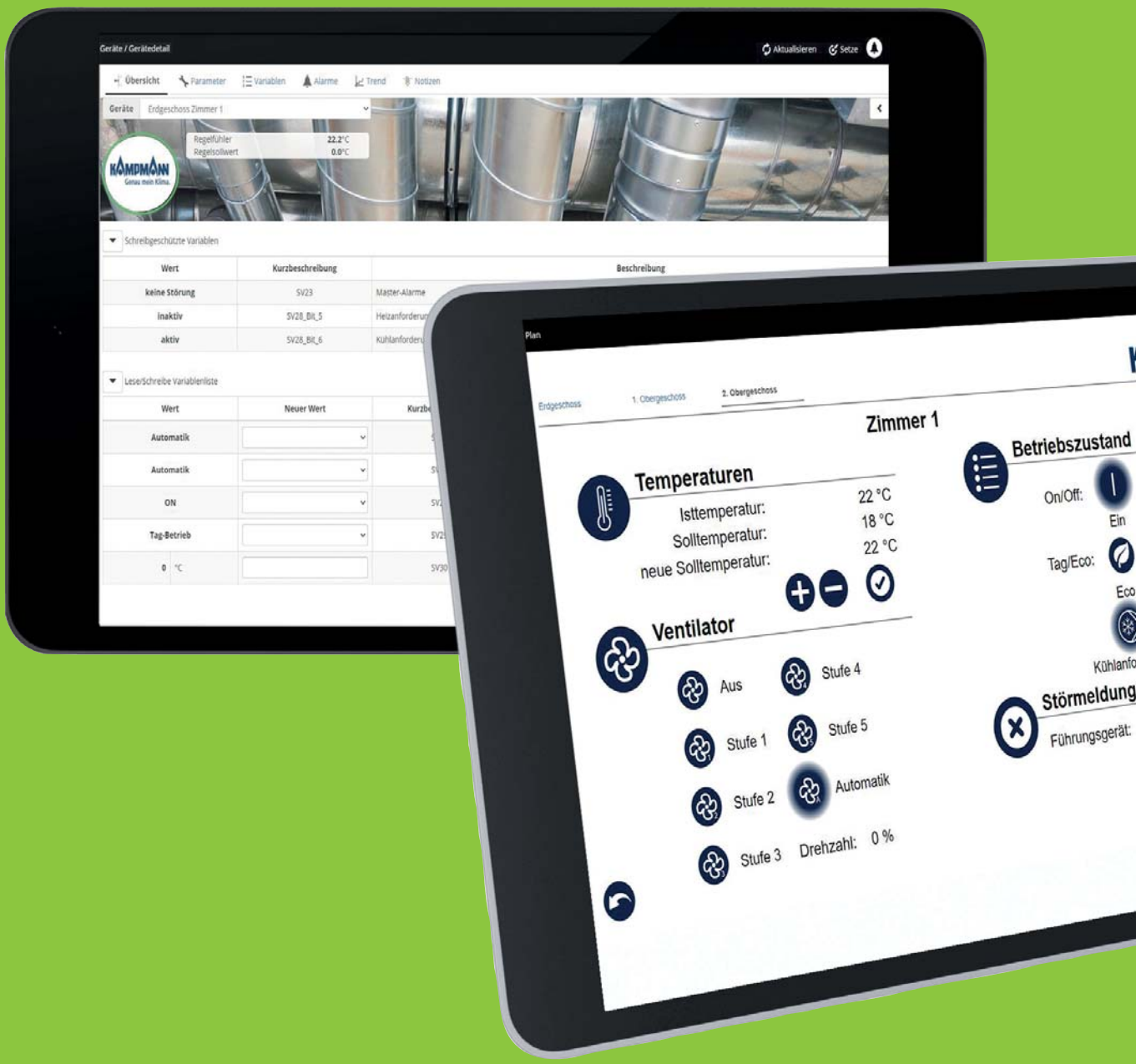
Invisible knowledge and expertise

As simple as the basic principle of a gravity cooling system is, its efficiency lies in the detail. **Hidden behind the drywall cladding are several partial shafts, the dimensions of which are calculated exactly by Kampmann.** The width, height and depth of the shaft and the coil determine the optimum design of the partial shafts. Only in this way can the cold air flow really effectively. This is the only way to create an air duct that is absolutely silent and comfortable in conjunction with our design grilles.

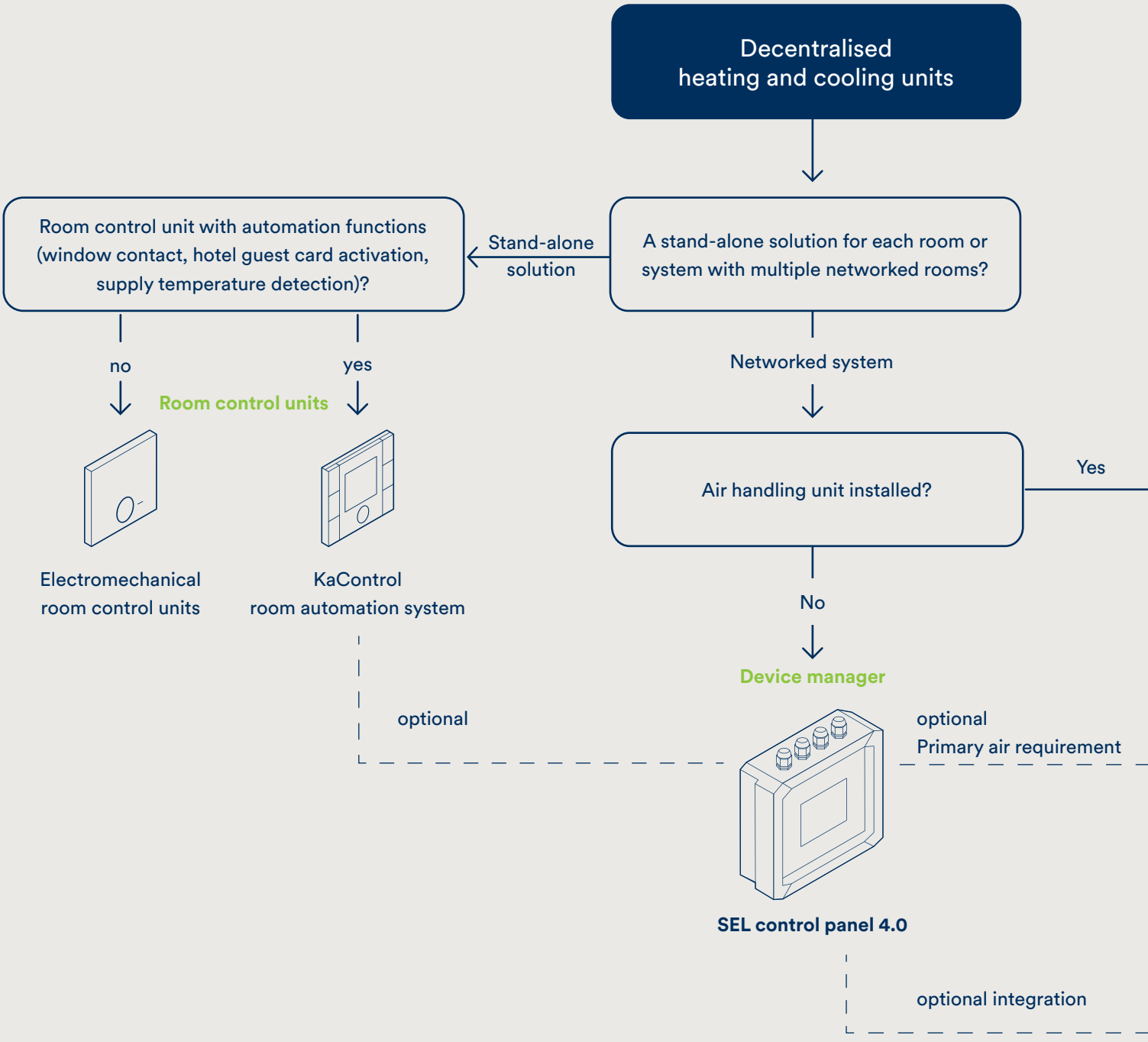
13 Control technology

The connectivity of building services components in buildings is now state of the art. Standardised automation networks ensure a cross-trade interplay of systems, killing two birds with the one stone: the demand for improved energy consumption of the entire company and increased comfort. Our KaControl control system can do just that – and has been doing so for many years.

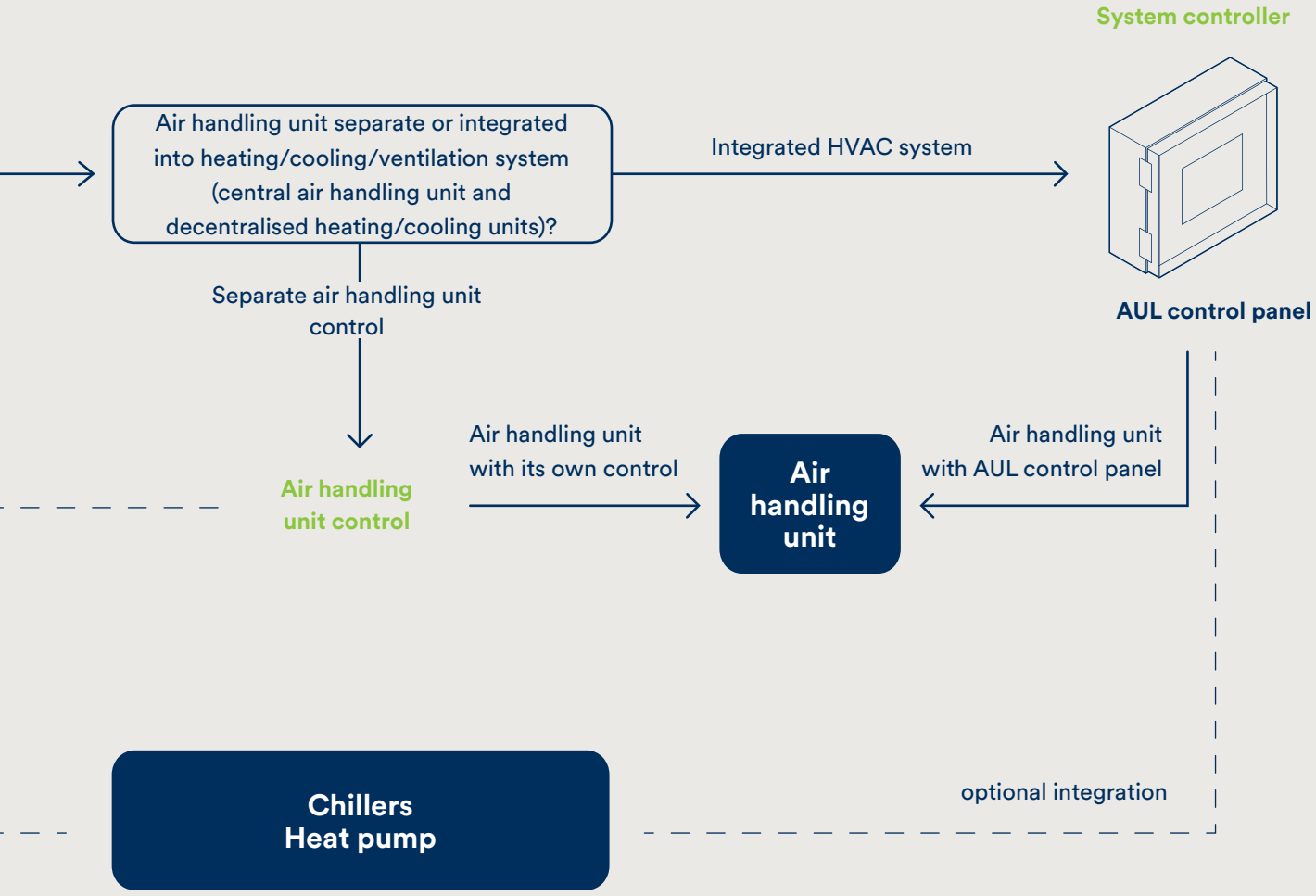
+ harmonised operation of heating, cooling and ventilation units
+ linking of all functional areas
+ easy to install
+ flexible to use
+ from analogue to cloud-based – you'll always have the right communication
+ central maintenance and fault reporting management


Geräte / Gerätedetail
Aktualisieren
Setze
Übersicht
Parameter
Variablen
Alarme
Trend
Notizen
Geräte
Erdgeschoss Zimmer 1
Regelfühler 22.2°C
Regelsollwert 0.0°C
KAMPMANN
Genau mein Klima.
Schreibgeschützte Variablen
Wert
Kurzbeschreibung
Beschreibung
keine Störung
SV23
Master-Alarme
inaktiv
SV28_Bit_5
aktiv
SV28_Bit_6
Lese/Schreibe Variablenliste
Wert
Neuer Wert
Automatik
Automatik
ON
Tag-Betrieb
0 °C
Plan
Erdgeschoss
1. Obergeschoss
2. Obergeschoss
Zimmer 1
Temperaturen
Isttemperatur: 22 °C
Solltemperatur: 18 °C
neue Solltemperatur: 22 °C
Ventilator
Aus
Stufe 1
Stufe 2
Stufe 3
Stufe 4
Stufe 5
Automatik
Drehzahl: 0 %
Betriebszustand
On/Off:
Ein
Tag/Eco:
Eco
Kühlanfo
Störmeldung
Führungsgerät:

From stand-alone solution to complete system



Our control programme ranges from electromechanical room control units to the KaController with initial automation functions to the SEL4.0 control panel for the management of decentralised units and simple ventilation requirements. We also have the AUL control panel for a ventilation and air conditioning systems (heating/cooling/ventilation) including complex ventilation rules.

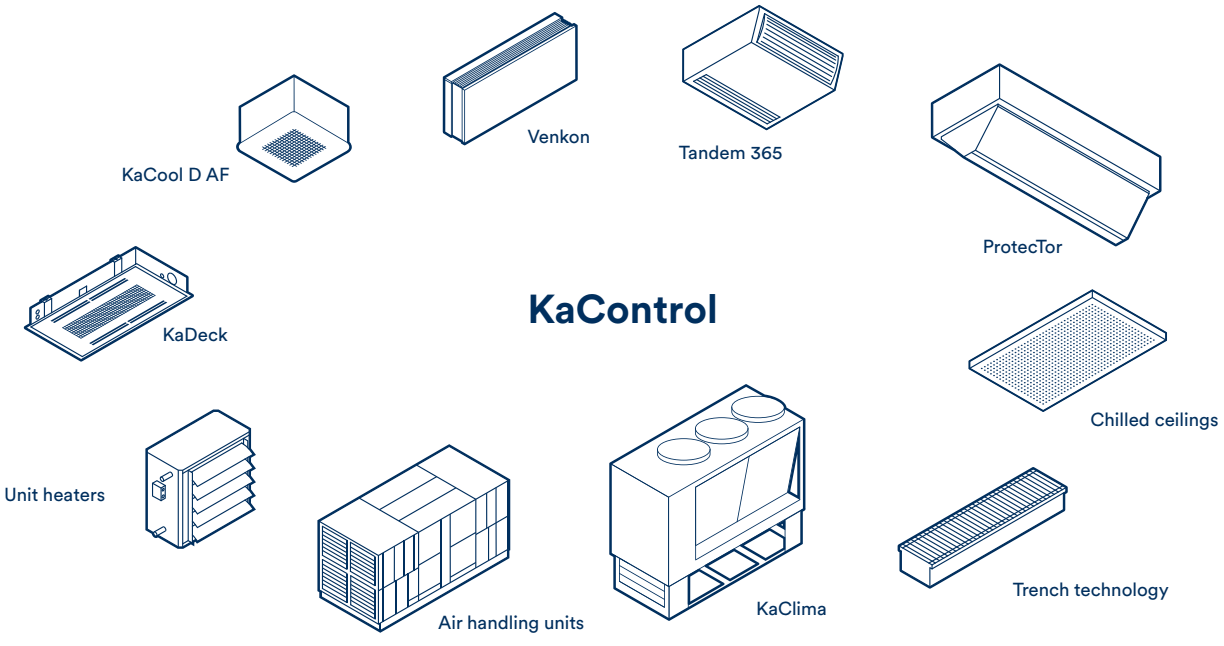

System controller
Air handling unit separate or integrated into heating/cooling/ventilation system (central air handling unit and decentralised heating/cooling units)?
Integrated HVAC system
AUL control panel
Separate air handling unit control
Air handling unit with its own control
Air handling unit with AUL control panel
Air handling unit control
Air handling unit
Chillers Heat pump
optional integration

Outsourcing ICA expertise

Markets and business models are constantly changing. New vendors, especially start-ups, are engaging with the Smart Home, while many manufacturers in the automation industry are focusing more on software and services to support building operations.

'Equipment-orientated' instrumentation, control and automation (ICA) is thus increasingly becoming a core focus of equipment manufacturers. Of course, we are also working on this and can operate all expansion stages of the control technology in the unit itself.

Heating, cooling, ventilation - automated, connected



The entire Kampmann range can be networked and centrally controlled.

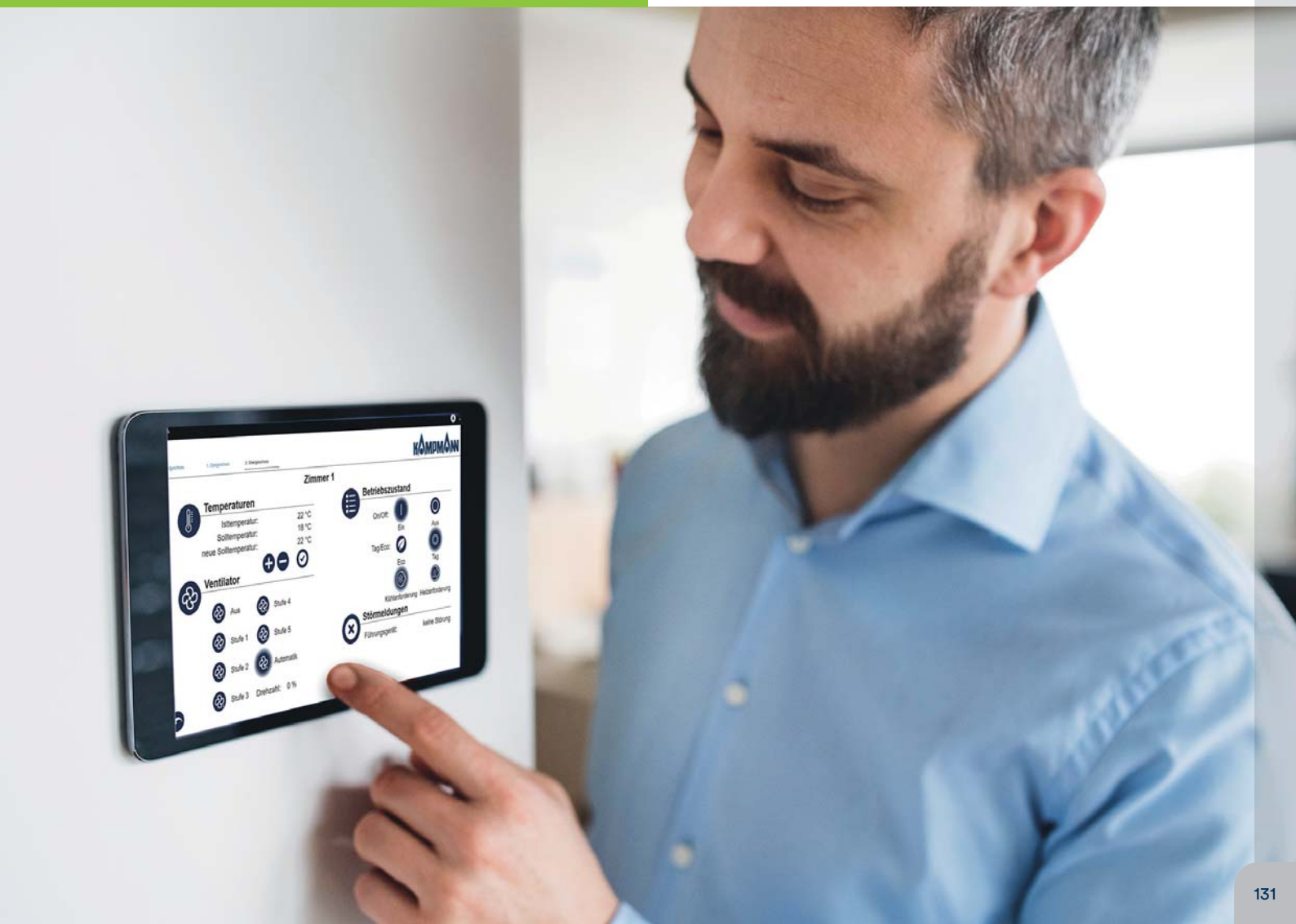
Electromechanical control

Of course, the units can be more than just networked and automated. **If the units do not have their own control, all components, such as fans, valves and sensors, are wired to a terminal block.** All the functions of the unit are provided externally here, for example by building automation. We have a selection of room controllers for simple control tasks.

Stand-alone or part of the BMS

KaControl

Our KaControl range is the gateway to all intelligent control logic for our products. We provide systems as a stand-alone complete solution for the operation and monitoring of heating, cooling and ventilation functions. However, often air conditioning systems need to be integrated into building automation systems (BA). KaControl also offers the appropriate interfaces, computing units and user interfaces for this. **Thus, KaControl ranges from the smart room control unit to an individual user interface within the building automation network.**



Our controllers at a glance

Electromechanical room control units

> all basic heating and cooling functions for 2- and 4-pipe applications
> available as different versions, for example with:
- switching input for setback mode via presence detector or window contact
- modbus-RTU interface to automation networks
- integrated timer function
- integration into many common flush-mounted ranges

KaControl

> the standard for the operation of decentralised units for heating and cooling e.g.:
- fan coils
- trench heaters
- unit heaters
- optional: gateways for modbus, KNX, BACnet

KaControl system controller

SEL4.0 control panel

> device manager for decentralised heating/cooling units
> controls up to 60 units in up to 25 zones by modbus RTU
> control of the hydraulic secondary circuit, (e.g. pumps and valves)
> detection of primary air demand and requirement at air handling system

AUL control panel

> universal regulation for ventilation systems
> all control functions are pre-programmed and can be parametrised project-specifically
> various CO_2control strategies and air volume controls
> integration of up to 60 secondary units in up to 10 zones

Intuitive for users

KaController room control unit

Our KaController devices are the standard for the operation of decentralised units for heating and cooling, such as fan coils, trench heaters and unit heaters.

They are available in different versions with side buttons or discreet rotary dial operation.

KaController devices can act as room control units within a complex building control system or can also control stand-alone solutions limited to the room.

KaControllers enable the system to have key automated control functions. Whether a **window contact control** or integration within a hotel room with **guest card activation**. In addition, KaControllers detect the **supply temperature** and process this information for efficient heating or cooling operation.

Perfectly choreographed

KaControl SEL 4.0 control panel

The KaControl SEL4.0 control panel is our star choreographer for the perfect interaction of chillers and heat generators, decentralised units for heating and cooling, as well as system hydraulics. It monitors up to 60 units for heating and cooling in up to 25 control zones and is thus THE system solution for heating, cooling and ventilation management.

But it can do more: the control panel provides a variety of functions for the hydraulic integration of our units, the control of pumps and valves in the hydraulic secondary circuit and its control. As the hub of the system solution, the KaControl SEL 4.0 control panel ensures an efficient overall system. Sounds complicated? It isn't! **We offer a fully preconfigured system control and parametrisation during commissioning for ease of start-up.**

Get started straight away

KaControl AUL control panel

The KaControl AUL control panel is our control standard for ventilation systems. It combines the building services from the generator to the room control to a system and, at the same time, gets the optimum energy efficiency out of your building concept.

And best of all: you're ready to go straight away with our KaControl AUL control panel. **All the relevant control functions for ventilation systems are already fully programmed.** All you have to do is set up the parameters for your individual system – saving you time and costs throughout the entire project.

And, of course, you will receive a complete functional test and instruction from our Kampmann Service team.

Made-to-measure and intuitive

KaControl visualisation

KaControl visualisation offers ONE central interface for the control and monitoring of our air conditioning systems. And one that's intuitive and easy to use, even if you're not a techie.

It maps a host of system-relevant functions for heating and cooling, change of operating mode, central shifting of setpoints and timer programs. It also displays trend data and central alarm management.

Up to 300 units can be integrated – optionally each complemented by a KaControl room control unit.

KaControl visualisation is always custom-made. **It can be used as a stand-alone control system or as part of a higher-level building automation system.** It is also possible to release sub-functions for certain users.

Perfectly solved

Kampmann automation specialists have the right solution for every project and optimise the system to suit the respective application. Support starts at the quotation stage: **We define the system to ensure that it precisely meets your requirements.** Alongside the network topology, the design drawings to set up the communication network, such as cabling diagrams, wiring diagrams and parameter lists, are also created.

We'll arrange it all

Our technical ICA team is available to you for the following:

- Support with the integration of products into established automation standards
- Advice on the selection of various control and automation systems.
- Support in decision-making about the scope of automation based on objective assessment criteria
- Operator and user-orientated advice based on efficiency criteria (cost/benefit)
- Support in the integration or linking of our systems into existing building automation systems
- Direct consultation with measurement, control and regulation companies to clarify interfaces to our systems
- Integral control concepts for the functional combination of Kampmann and NOVA units

Service

We are always there to help!

We will support you through every phase of your project in line with our aim to be the market leader. Our tightly connected network of employees from Sales, Service and Kampus is on hand to deliver our exceptional service levels. At one of our sites, at your premises, on site or digitally.

kampmanngroup.com/service →

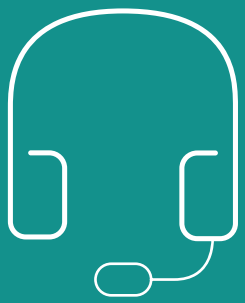
Project support

Precision and speed.

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.

Customer Service

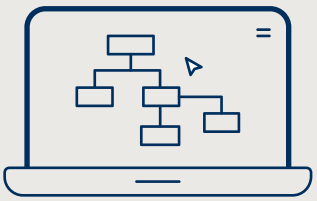
Take advantage of our nationwide customer service network.



The Customer Service department of the Kampmann Group ensures that our customers are satisfied throughout the entire After-sales Service process. We offer you flexible options to express your concerns and quickly complete your processes. Take advantage of our service 24/7.

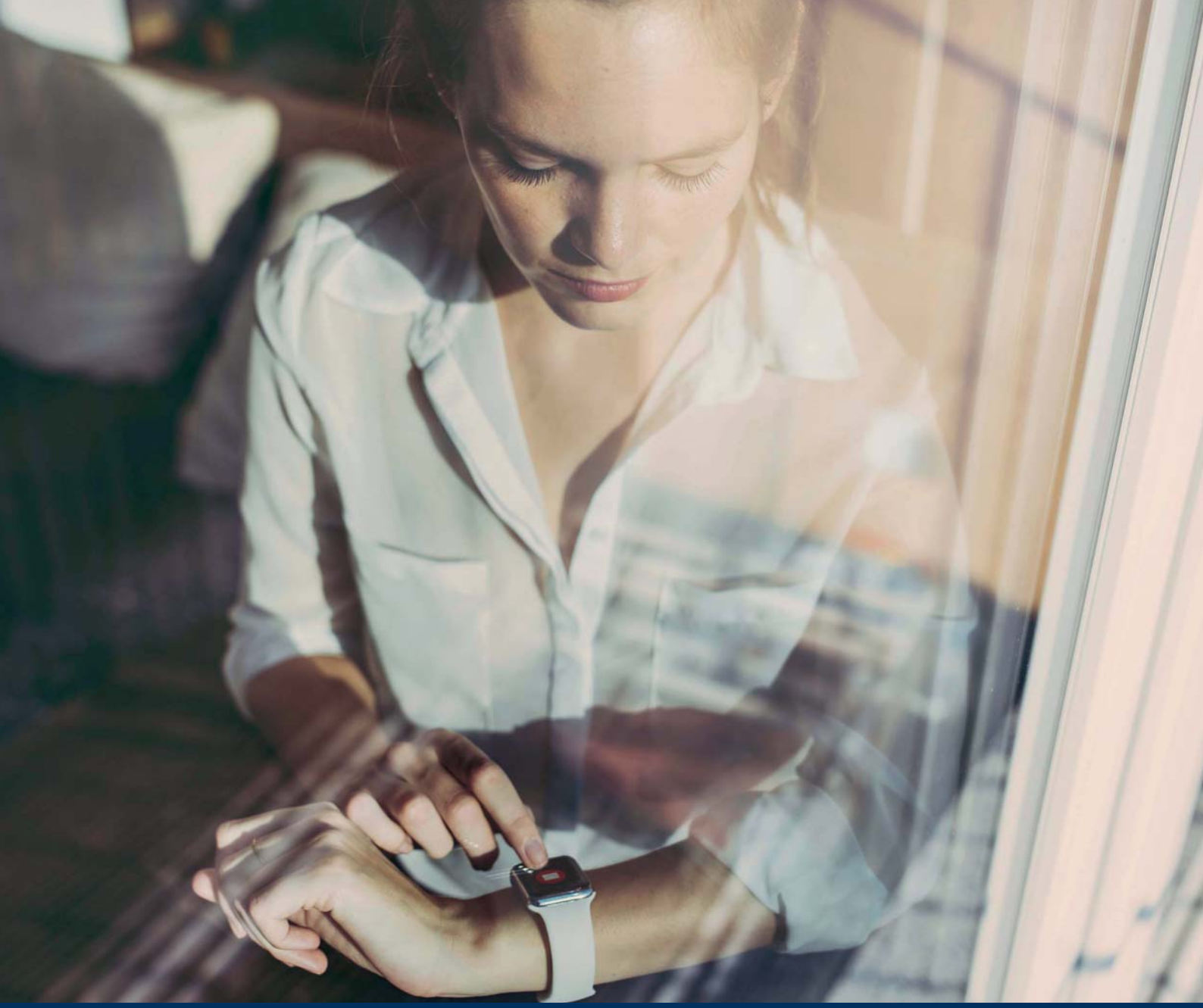
Tools

We use these tools in our project planning.



Our website offers a host of time-saving website tools, such as our calculation program, watch list and our individual specification and tender descriptions. Watch our application videos for a quick overview or get started directly – for fast, easy working.

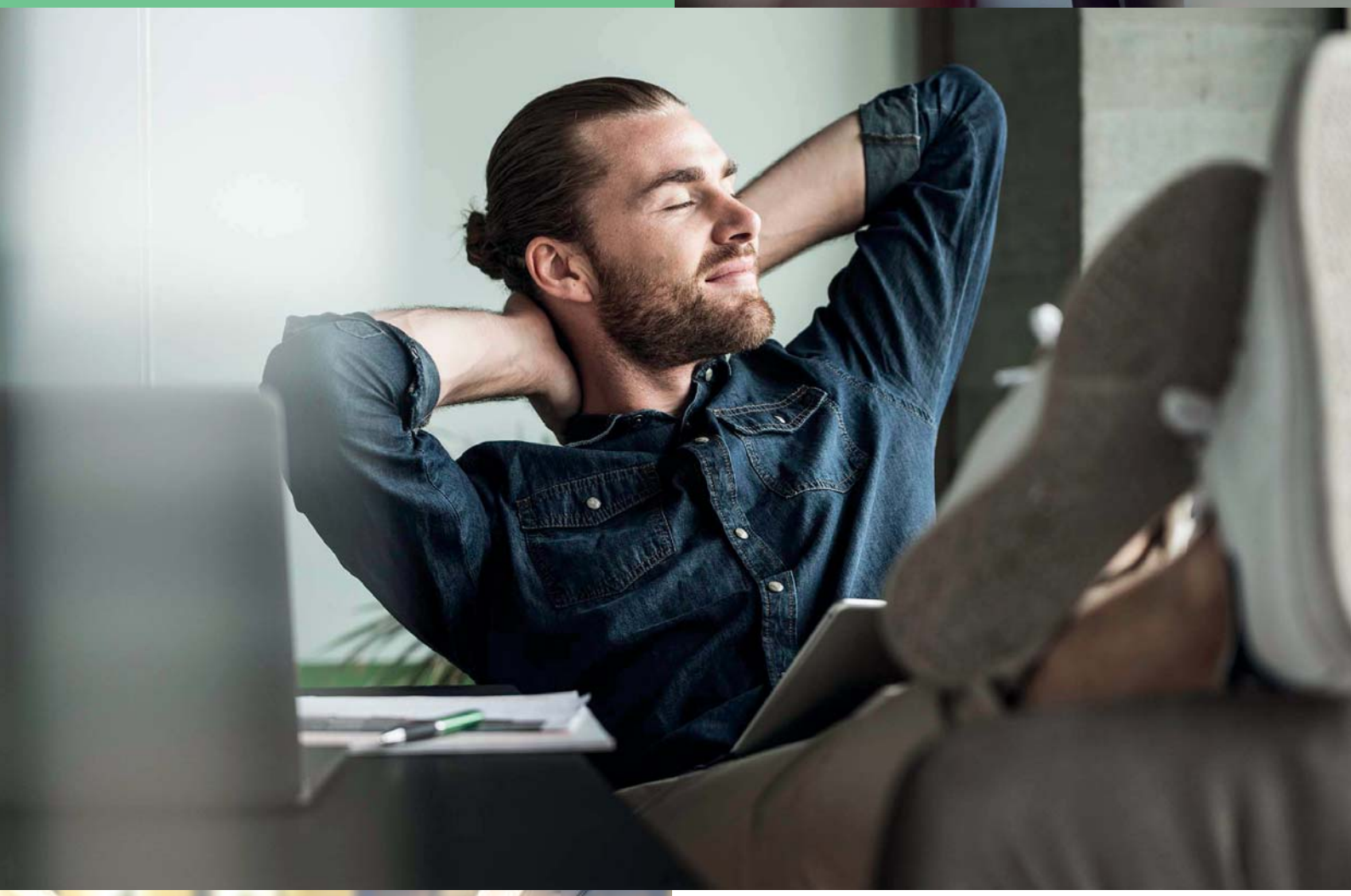
kampmanngroup.com/service/tools →



Genau mein Klima.

We are air to most of our customers.
And that makes us happy.

Kampmann has been providing the perfect climate for some fifty years now. In hotels. In supermarkets. In offices. Reliable and individual in simply any situation.



KAMPMANN

Solution finders.

Market leaders.

Family business.

We leave nothing to chance. Not even the future. We test, improve and do not give up until the result is completely compelling – both stand-alone and integrated.

For example, we have become one of the market leaders in fan convectors and air heaters. And we were among the first to develop an effective air purifier to combat coronaviruses and make it available to the market.

This is made possible by our innovative spirit, engineering and the constant pursuit of excellence.

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