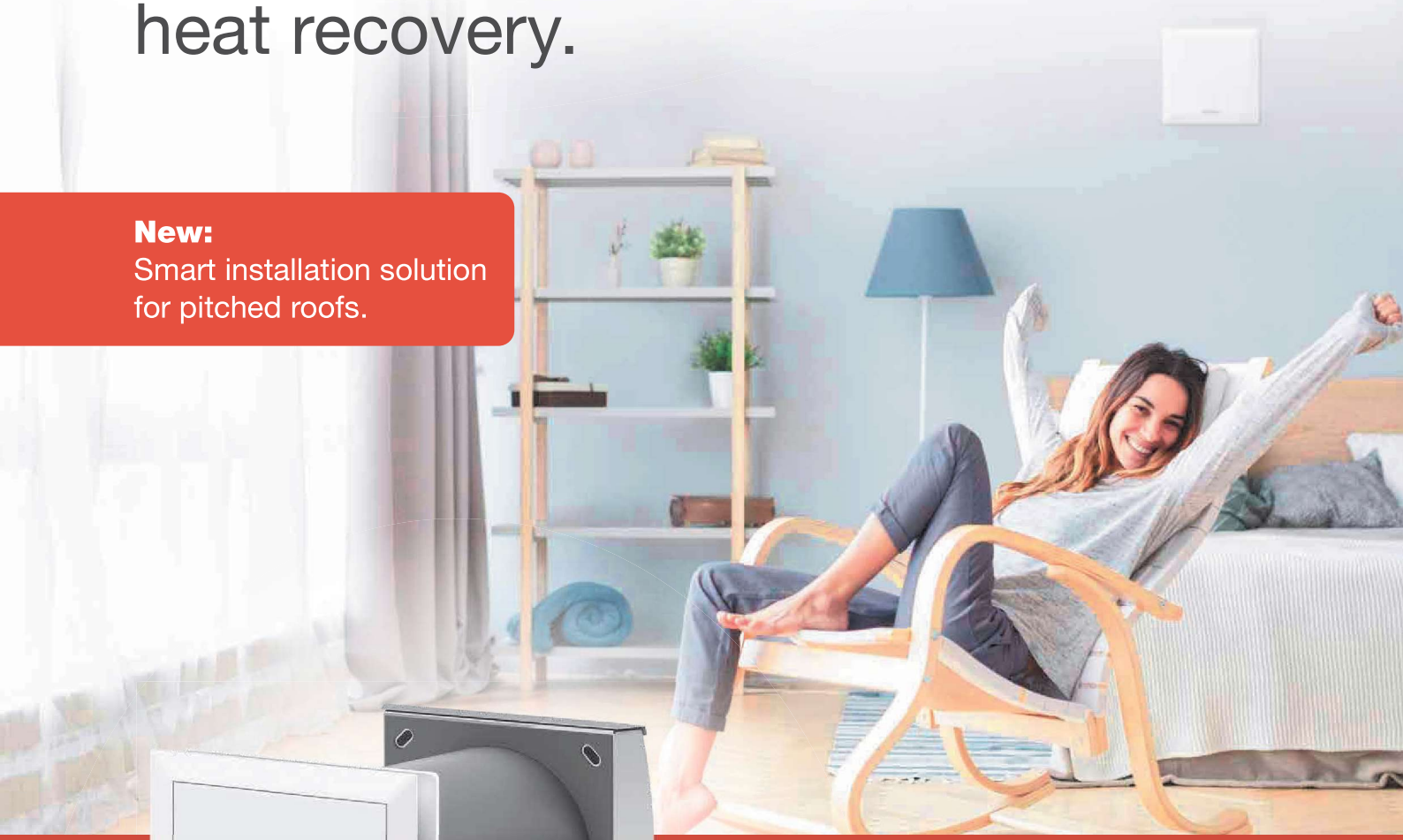
KWL® EcoVent Verso

Comfortable climate thanks to **decentralised ventilation with heat recovery.**

New:
Smart installation solution for pitched roofs.



Helios

Lean back. Take a deep breath.
With KWL® EcoVent Verso.

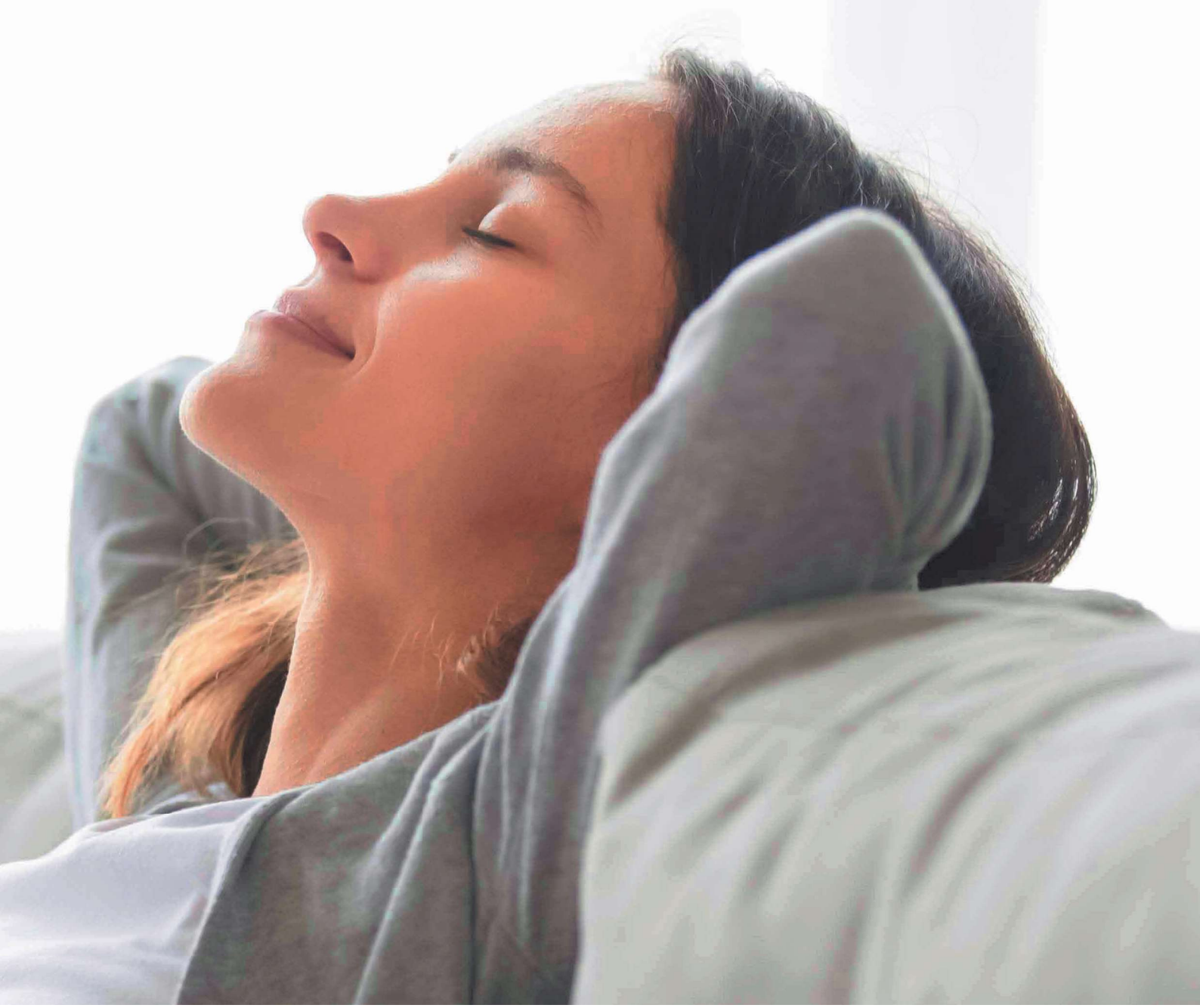
Multiple award-winning design, perfectly suitable for the Helios extract air solutions ultraSilence ELS and MiniVent M1.

100% flexible: KWL EcoVent Verso can be installed not only in external walls with facade panels, but also in window soffits or pitched roofs.

Compact diameter of only 160 mm.

A+

KWL EcoVent Verso provides energy efficiency class A+ with additional room sensor.



Building envelopes in new and renovated buildings are becoming more and more tight due to increased energy requirements. The result: Natural air exchange can no longer take place in the rooms and the humid and used air is not discharged to the outside. In order to prevent moisture damage to the building structure, the necessary air exchange must be continuous and user-independent.

Balanced domestic ventilation with heat recovery (KWL) fully ensures ventilation pursuant to DIN 1946-6 and thus guarantees that not only the indoor environment, but also the energy balance sheet benefit from the ventilation technology measures. In this respect, a decentralised ventilation system with heat recovery offers major advantages as it is an economical and simple solution for single rooms.

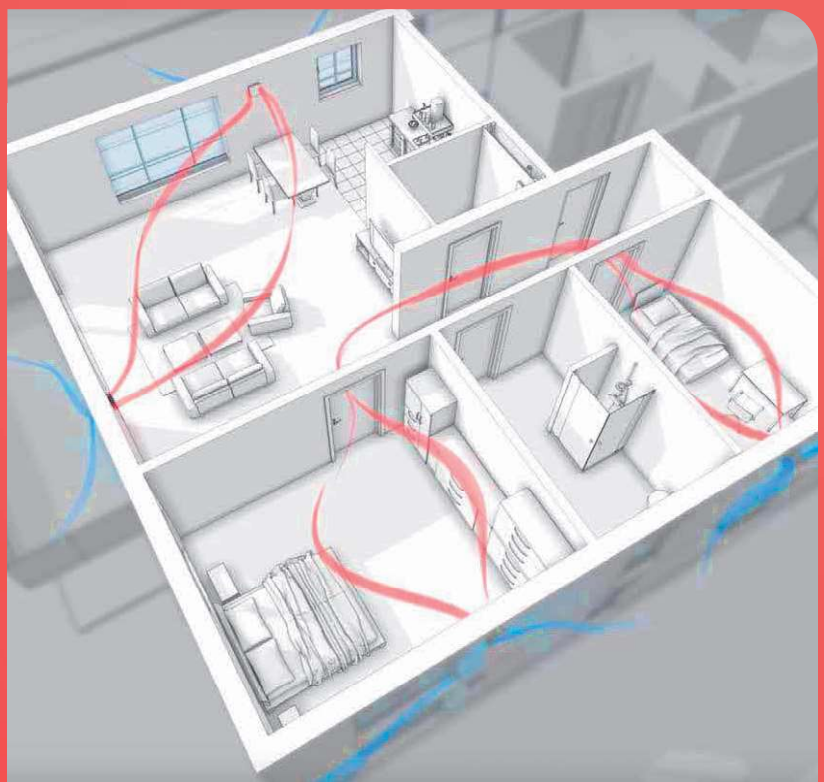
The ventilation solution for single rooms: EcoVent Verso from Helios. With regard to decentralised ventilation, the focus is on two main points: On the one hand, high efficiency is a prerequisite for the economical operation of the units and, on the other hand, the individual ventilation units must form a complete system in perfect coordination with each other. The Helios EcoVent Verso unit is among the best in its class in both categories. Thanks to the preconfigured order sets and the quick and simple installation, the EcoVent Verso provides an economical solution for the ventilation of single rooms. The perfect combination of ceramic heat accumulator, flow straighteners and EC fan make the EcoVent Verso exceptionally efficient and quiet.

A minimum of two alternating units form a functioning ventilation system, whereby multiple EcoVent Verso units are installed depending on the air requirement of the residential unit. The intelligent control unit enables the optimal adjustment of individual volume flows – even with an odd number of devices. Furthermore, it is possible to implement combi-ventilation in combination with extract air solutions, such as **Helios ultraSilence ELS or MiniVent M1**. Commissioning is also especially simple: Thanks to the clever software, the settings can be configured directly via a PC or laptop – quick and uncomplicated. Thus, there is only one thing for the residents to do: Relax, lean back and take a deep breath!

An efficient ventilation system – **in a flash.**

▶ PLAY NOW

Visit our Youtube-Channel to discover all solutions that EcoVent Verso offers you.



Helios KWL EcoVent Verso – Perfection, in a flash.

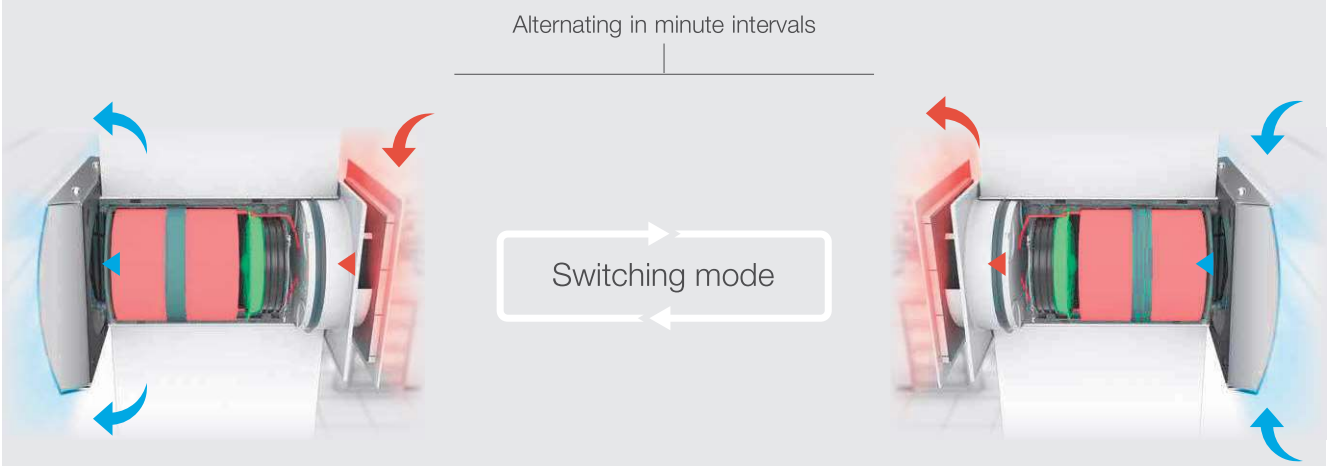
EcoVent Verso opens up completely new possibilities for the economical ventilation of single rooms. The EcoVent Verso is particularly useful if there is limited space available due to its compact dimensions, whether it is used in new construction or renovation, for single-family houses or apartment buildings.

The heat recovery is regenerative with the help of a ceramic heat accumulator. During extract air operation, this absorbs and stores the heat from the indoor air in a ceramic accumulator, so that the heat can be transferred to the incoming outside air during the subsequent supply air phase. The ceramic accumulator is particularly dirt-repellent due to the smooth surface and it ensures constant hygienic operation in connection with the protection grille and the integrated filter. For the sake of balanced ventilation, one functional unit consists of a minimum of two units, which operate in their operating modes (supply air/extract air) in alternating phases. Furthermore, the total number of ventilation units depends on the air requirement of the apartment. In this respect, the volume flows of the individual units are perfectly coordinated with each other by means of the central control unit.

Your benefits:

- Compact dimensions for external wall installation with minimum space requirements.
- Economical EC fans for maximum energy efficiency.
- Heat recovery efficiency of up to 88 %.
- Convenient control, can be connected to extract air systems for combined ventilation.
- Simple commissioning by connecting the controller to the PC or laptop.
- Multiple award-winning design, perfectly suitable for the Helios extract air solutions ultraSilence ELS and MiniVent M1.

A minimum of two units form a ventilation unit (with heat recovery).



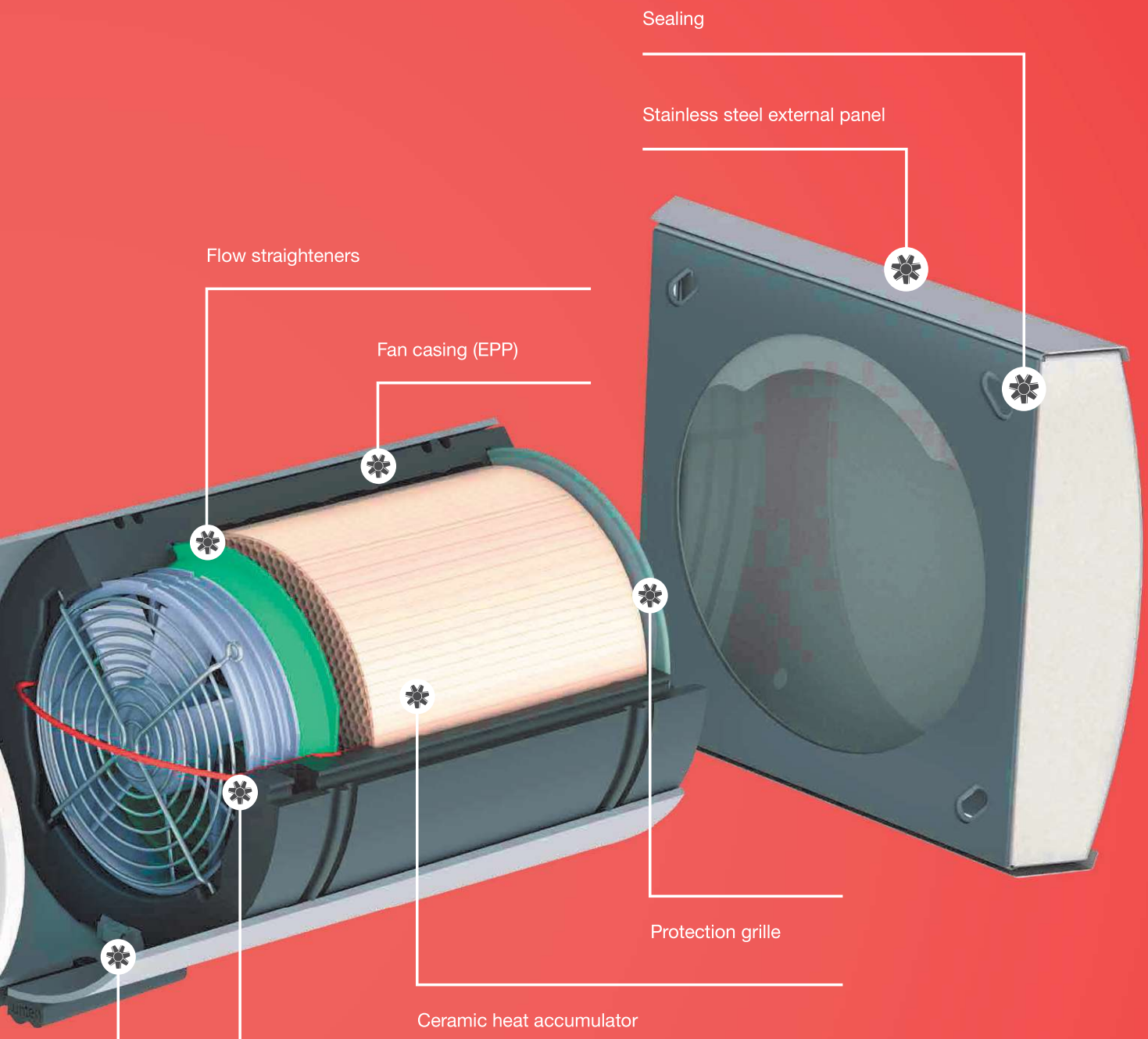
Extract air
During the extract air phase, the ceramic accumulator absorbs and stores the heat from the room air (storage charging).

Supply air
During the supply air phase, the fresh outside air absorbs the heat from the ceramic accumulator and this pre-heated air flows into the room.

Best features.
Award-winning design.

Your benefits:

- Economical and quiet EC axial fan.
- Elegant and timeless design.
- Ventilation-optimised internal panel.
- Easy, tool-free installation.
- Highly efficient flow straighteners for high heat recovery and quiet operation.
- Integrated sound insulation.
- ISO Coarse 50 % air filter, easily accessible and can be exchanged without tools.


Sealing
Stainless steel external panel
Flow straighteners
Fan casing (EPP)
Protection grille
Ceramic heat accumulator
Protection grille with fan unit
Wall installation sleeve

Control and configuration.
Clever und easy.

Clear display of the ventilation stages and operating mode via the LED display.

Filter change display
The end of the filter change interval is indicated by a flash code.

NEW:

- **Password protection**
- **Sleep mode**
- **Party mode**
- **Extract air mode**

Button Operating mode for:

- Supply- or exhaust air mode
- Cross-ventilation mode (non-reversing mode)
- Reversing mode with heat recovery

+

M 2 sec.
Sleep mode
Sleep mode deactivates the unit for a pre-defined period (15 – 180 min.).

Button ventilation stages:

Five stages + OFF

+

2 sec.
Pulse ventilation / Party mode
This mode allows ventilation in stage 5 for a pre-defined period (15 – 180 min.).

Your benefits:

- EcoVent Verso is controlled intuitively via the LED controller.
- Can be used to control up to eight units at the same time.
- The buttons are used to select the five ventilation stages.
- Easy, tool-free installation.
- External contact:
  Activation of pre-set functions (e.g. supply air mode) via button or extension module.

Uneven numbers of units per utilisation unit are also possible with Helios EcoVent Verso.

Thanks to the software “HELIOS EcoVent Verso”, the controller can be connected to a PC or laptop via the USB port. As an alternative to configuring the unit using the two buttons on the controller, the control unit can be accessed easily and conveniently in this way.

Thus, the commissioning and the entry of necessary values (e.g. filter change intervals or minimum ventilation stage) can be completed in a short space of time. All possible setting options can be changed quickly using the user interface and user-friendly support is provided with the corresponding help texts. The set configuration can be saved directly on the PC or laptop and re-programmed into the control unit if required. The installation cost in a larger property is thereby reduced to a minimum. If lots of the same ventilation systems are used, the configuration is just set once for a residential unit and can then be transferred to several controllers or apartments as required.


Splitting ratio (supply air units : extract air units)
1:1
1:2
2:3
3:4
3:5
Sleep / Party mode
Sleep mode
Party mode
Duration
Min.
Function mode setting
Heat recovery
Cross ventilation
Supply air
Extract air
Function external contact
Cross ventilation
Supply air
Extract air
Unit Standby
Max. fan stage
Fan stage
Fan stage BEU
LED display
Luminosity
Fluorescent time
Sec.
Permanent operation
Hours of operation: 0
Unit assignment: Supply/Extract air mode
Only supply air units or only extract air units
All units (supply and extract)
Total hours of operation 000
PIN
Reset hours of operation
Load factory setting from unit
Quit

Ideally planned.
DIN or COMBI.

Ventilation solution DIN:

Decentralised single room ventilation systems are also subject to the requirements of DIN 1946-6. The updated standard provides more clarity as to which ventilation concepts are feasible and how they should be planned. With regard to Ventilation solution DIN, it is assumed that the entire facility has a decentralised ventilation system with heat recovery. The volume flow must therefore be designed on the basis of nominal ventilation for the entire facility.

This means that in addition to the supply air rooms, the extract air volume flows required in the extract air rooms must also be ensured. Two EcoVent Verso ensure the necessary air exchange in wet rooms (kitchen, bathroom, WC). Individual comfort is ensured with intelligent regulation and control options. In this way, you can achieve the best energy efficiency values with the DIN ventilation solution.

At a glance:

- DIN-compliant design according to nominal volume flow pursuant to DIN 1946-6.
- Ventilation with heat recovery in all rooms in the residential unit.
- Optimal ventilation and energy efficiency of single room ventilation systems.
- Individual regulation of single rooms is possible.

Ventilation solution COMBI:

With regard to Combined ventilation, the EC 45 units are replaced by extract air fans in extract air rooms. In practice, this solution is frequently used for facilities with internal bathrooms or WCs. The extract air system is normally implemented as a demand-based system. The KWL EC 45-160 units still ensure the ventilation with heat recovery in the supply air rooms. If an extract air fan is activated, the KWL EC 45-160 units circulate the air flow without heat recovery. If the extract air fan switches off again, the units will switch back to heat recovery mode. The extension module KWL 45 EM ensures the coupling of the system.

At a glance:

- Coupling with a Helios extract air system (ultraSilence® ELS or MiniVent® M1).
- Ventilation of internal rooms/ bathrooms/ WCs according to DIN 18017-3.
- Combination through extension module KWL 45 EM.
- Internal panels for KWL EC 45-160, MiniVent® M1 and ultraSilence® ELS have the same timeless design.

Quick and easy dimensioning with:
www.KWLeasyPlan.de

System example:
1 room apartment.

Key:

Unit
KWL EC 45-160

Control set
KWL 45 STS-UP

Extract air fan
ELS EC / MiniVent M1

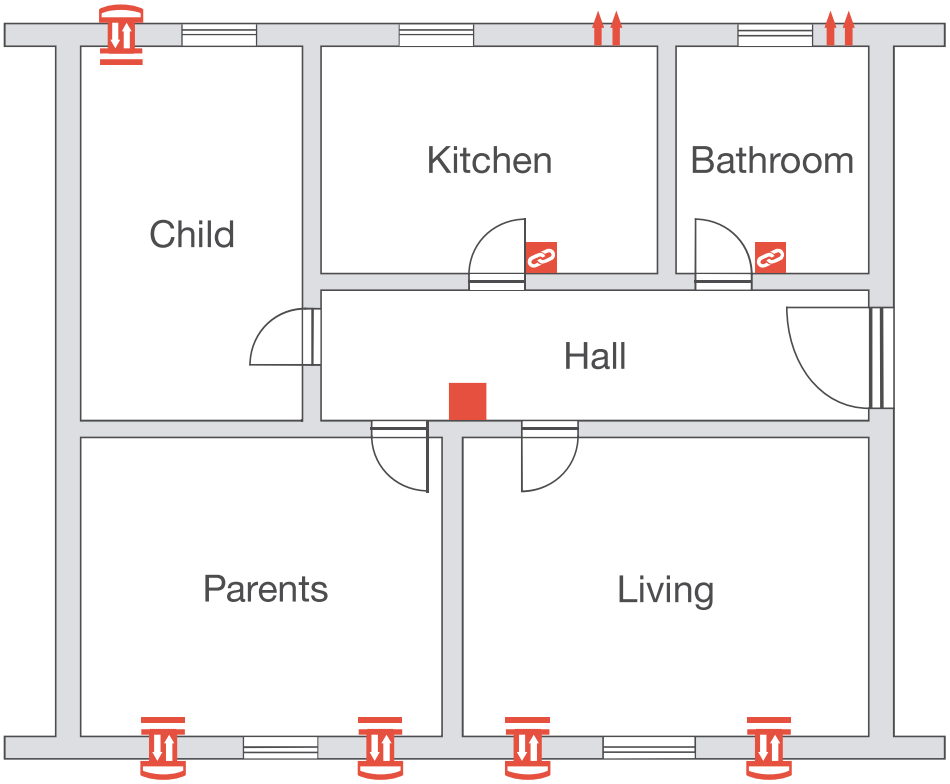
Extension module
KWL 45 EM

Bill of quantities system example 1 room apartment:

Ref. no.	Type	Description	Solution: COMBI 1 [1]	Solution: COMBI 2 [2]
		Living- and bedroom:		
09361	KWL EC 45-160	Unit	2 pcs.	2 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	2 pcs.	2 pcs.
09321	KWL 45-160 FB-E	Facade panel	2 pcs.	2 pcs.
03006	KWL 45 STS-UP	Control set	1 pc.	1 pc.
03012	KWL 45 EM	Extension module	1 pc.	2 pcs.
		Kitchen:		
06408	ELS EC 60 F	Extract air fan	–	1 pc.
08111	ELS-GU	Flush casing for ELS-V 60	–	1 pc.
		Bathroom:		
06408	ELS EC 60 F	Extract air fan	1 pc.	1 pc.
08111	ELS-GU	Flush casing for ELS-V 60	1 pc.	1 pc.

[1] Combined ventilation example 1: Extract air in bathroom. [2] Combined ventilation example 2: Extract air in kitchen and bathroom.

System example:
3 room apartment.



Key:

Unit
KWL EC 45-160

Control set
KWL 45 STS-UP

Extract air fan
ELS EC / MiniVent M1

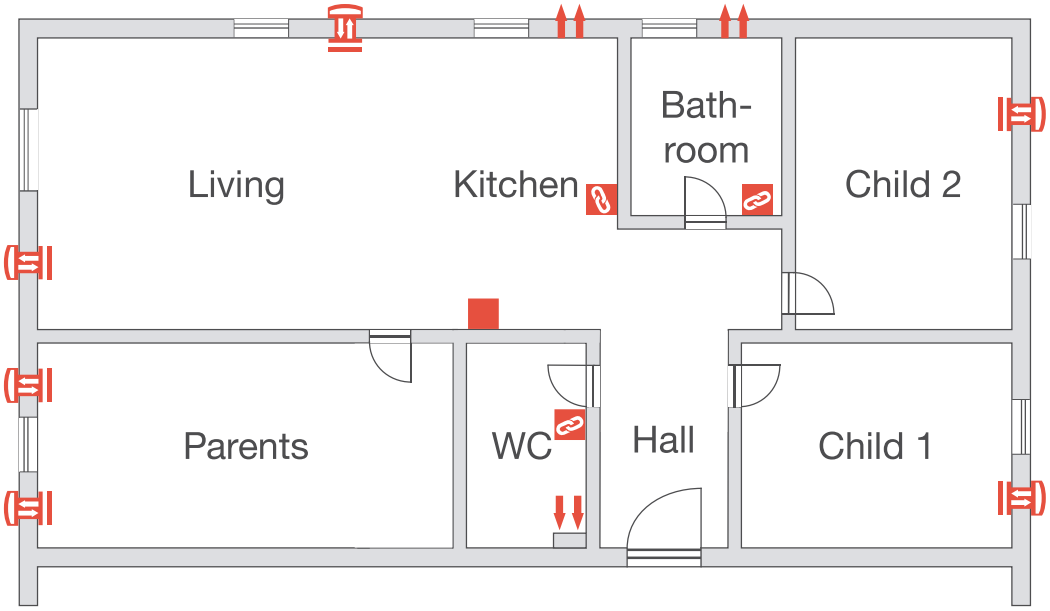
Extension module
KWL 45 EM

Bill of quantities system example 3 room apartment:

Ref. no.	Type	Description	Solution: COMBI	Solution: DIN*
		Living-, bed- and children's room:		
09361	KWL EC 45-160	Unit	5 pcs.	5 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	5 pcs.	5 pcs.
09321	KWL 45-160 FB-E	Facade panel	5 pcs.	5 pcs.
03006	KWL 45 STS-UP	Control set	1 pc.	1 pc.
03012	KWL 45 EM	Extension module	2 pcs.	–
		Kitchen:		
09361	KWL EC 45-160	Unit	–	2 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	–	2 pcs.
09321	KWL 45-160 FB-E	Facade panel	–	2 pcs.
03006	KWL 45 STS-UP	Control set	–	1 pc.
06175	M1 / 100 F	Extract air fan	1 pc.	–
00717	WES 100	Wall mounting kit for M1	1 pc.	–
		Bathroom:		
09361	KWL EC 45-160	Unit	–	2 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	–	2 pcs.
09321	KWL 45-160 FB-E	Facade panel	–	2 pcs.
03006	KWL 45 STS-UP	Control set	–	1 pc.
06175	M1 / 100 F	Extract air fan	1 pc.	–
00717	WES 100	Wall mounting kit for M1	1 pc.	–

* The flow rate specifications are based on the nominal ventilation (DIN 1946-6) for the DIN variants.

System example:
4 room apartment.



Key:

Unit
KWL EC 45-160

Control set
KWL 45 STS-UP

Extract air fan
ELS EC / MiniVent M1

Extension module
KWL 45 EM

Bill of quantities system example 4 room apartment:

Ref. no.	Type	Description	Solution: COMBI	Solution: DIN[1)]
		Living-, bed- and children's room:		
09361	KWL EC 45-160	Unit	6 pcs.	6 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	6 pcs.	6 pcs.
09321	KWL 45-160 FB-E	Facade panel	6 pcs.	6 pcs.
03006	KWL 45 STS-UP	Control set	1 pc.	1 pc.
03008	KWL 45 SNU	Switching power supply (flush)	1 pc.	1 pc.
03012	KWL 45 EM	Extension module	3 pcs.	–
		Kitchen:		
09361	KWL EC 45-160	Unit	–	2 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	–	2 pcs.
09321	KWL 45-160 FB-E	Facade panel	–	2 pcs.
03006	KWL 45 STS-UP	Control set	–	1 pc.
06175	M1 / 100 F	Extract air fan	1 pc.	–
00717	WES 100	Wall mounting kit for M1	1 pc.	–
		Bathroom:		
09361	KWL EC 45-160	Unit	–	2 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	–	2 pcs.
09321	KWL 45-160 FB-E	Facade panel	–	2 pcs.
03006	KWL 45 STS-UP	Control set	–	1 pc.
06175	M1 / 100 F	Extract air fan	1 pc.	–
00717	WES 100	Wall mounting kit for M1	1 pc.	–
		WC:		
09361	KWL EC 45-160	Unit	–	2 pcs.
09319	KWL 45-160 WH	Wall installation sleeve	–	2 pcs.
09321	KWL 45-160 FB-E	Facade panel	–	2 pcs.
03006	KWL 45 STS-UP	Control set	–	1 pc.
08131	ELS EC 60 NC	Extract air fan	1 pc.	–
08111	ELS-GU	Flush casing for ELS-V 60	1 pc.	–

[1)] The flow rate specifications are based on the nominal ventilation (DIN 1946-6) for the DIN variants

A practical example. KWL® EcoVent Verso in an apartment building.

New-build apartment building

- **Planed by:**
  WURTZ bauen + wohnen
- **Location:**
  Leonberg
- **Ventilation system:**
  KWL® EcoVent Verso combined with ultraSilence® ELS

"Adequate equipment and a high degree of individuality are the standard for us." says Philipp Wurtz, Managing Director of WURTZ bauen+wohnen GmbH. When planning the apartment building in Leonberg, the Low Energy Standard was particularly important for him and this resulted in optimal heating and interest cost savings. The decentralised EcoVent Verso ventilation units with their high heat recovery efficiency levels play a major part in this and also provide for an optimal feel-good atmosphere.

The combination that makes the difference.
EcoVent Verso units can be operated in combination with extract air systems (ultraSilence® ELS or MiniVent® M1) using the controls and an extension module.

The EcoVent Verso units in this apartment building ensure optimal air quality in the living rooms and bedrooms. An ultraSilence® ELS mono tube fan is installed in each internal extract air room, e.g. bathrooms and WCs.

Premium-class extract air fans. **MiniVent® M1 and ultraSilence® ELS.**

The operation of an extract air system (Helios ultraSilence® ELS or MiniVent® M1) can be intelligently combined with the KWL EcoVent Verso thanks to combined ventilation. The extension module KWL 45 EM allows the combination of the two systems.

MiniVent® M1

The small room fans MiniVent® M1 are known for the highest pressure performance, lowest noise levels and maximum energy efficiency. Two performance levels, jet water protection IP X5 and high-quality long-life ball bearings are standard equipment features with clear added value. Equipped with Helios ultraSilence® technology, MiniVent® operates almost silently and consumes around a third less energy than conventional small room fans.

The minimalist premium design stands out in any room with understated elegance. MiniVent® M1 is available with turn-off delay mode and interval mode or barrier-free automatic functions, such as the presence detector or humidity control function. This responds to the rate of humidity increase with intelligent electronics and effectively prevents mould formation.

ultraSilence® ELS

The wonderfully quiet ELS mono tube ventilation systems are controlled as required and they extract stale air from kitchens, bathrooms and WCs via a central main pipeline to which more than 20 floors or more than 40 individual units can be connected. ELS is thus optimally protected against humidity: Installation in wet room zone 1 according to DIN VDE 0100-701 is possible without difficulty. In addition to standard ELS types and ELS with (adjustable) turn-off delay, the variants with motion sensor and automatic humidity control offer maximum comfort and completely barrier-free, automatic operation. From simple installation and maintenance and intelligent electronics through to the various test marks and approvals – Helios ELS meets all practical requirements and every request for comfort and maximum performance.

Further information on the individual types:
www.HeliosSelect.de

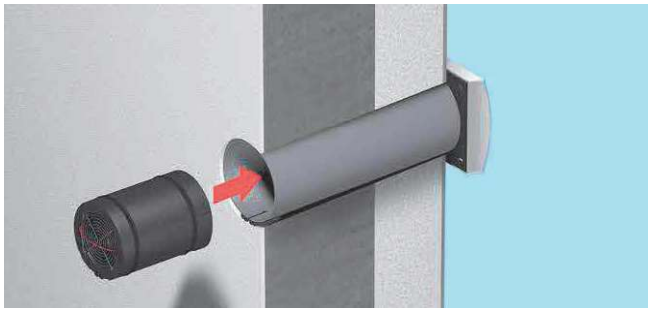
Mounted, in a flash.
Installation in the facade.

Depending on the fan unit, wall openings must be created, e.g. by means of core drilling, and the electrical wiring must be prepared for the installation of the EcoVent Verso. The fan unit can then be installed quickly and easily in three steps:

Step 1

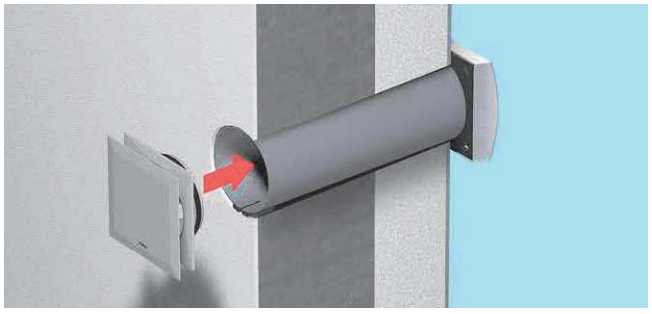
Install wall sleeve and external panel.
Once the wall installation sleeve has been fixed in the core hole, the external panel can be mounted to the finished facade.

Step 2



Insert unit and connect it electrically.
Once the construction or renovation measures are complete, the unit can be inserted in the wall sleeve and connected electrically.

Step 3

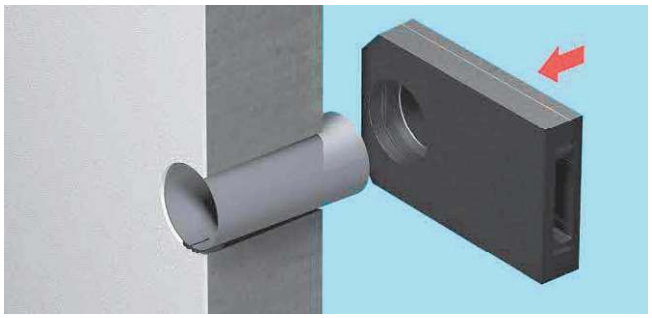


Attach internal panel. Finished.
Once the fan unit has been installed, the internal panel with integrated filter can be attached.

Invisible, in a flash.
Installation in the window soffit.

The air inside a thermal insulation system is directed 90° in the window soffit with the newly developed soffit element made from highly insulating EPP. Apart from the grille, no parts are visible on the external facade.

Step 1



Install wall sleeve and soffit channel.
Once the wall installation sleeve has been fixed in the core hole, the soffit channel can be installed on the outside.

Step 2

Attach soffit channel.
The soffit channel can be installed flexibly on the right or left side of the window. Furthermore, the EPP element can be shortened as required using a saw or hot wire. The soffit channel is attached to the wall sleeve and mounted to the facade with the provided stainless steel screws.

Step 3

Integrate soffit channel in the facade insulation.
The integrated condensate drain allows horizontal mounting. This saves time and simplifies the adjustment of the surrounding insulation boards. Thermal bridges are avoided.
The element must always be overinsulated. It is not suitable for insulation thicknesses ≤10 cm and must not be installed in this case.

Step 4

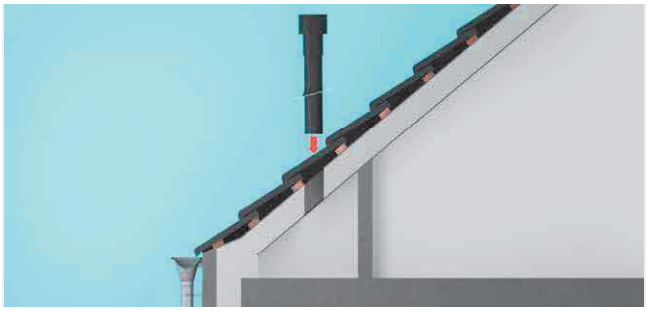
Plaster facade and mount wall grille.
Once the wall has been plastered, the protruding plaster frame can be removed and the wall grille can be screwed on. Once the construction or renovation measures are complete, the unit can be inserted and connected electrically. The internal panel can then be attached.


NEW

On top, in a flash.
Installation in the pitched roof.

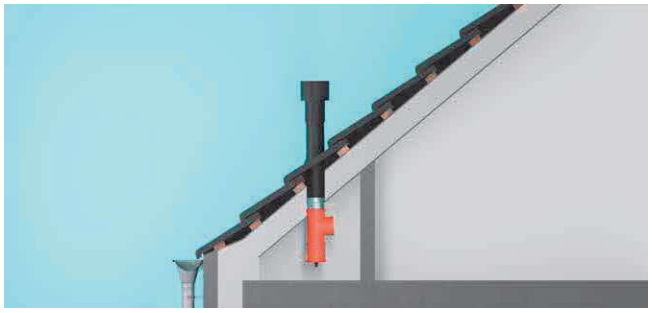
With the new installation kits, the KWL EcoVent Verso ventilation units can also be installed in the pitched roof of an attic room. The ventilation unit is placed directly in the jamb wall, with the air being directed outside via the roof.

Step 1



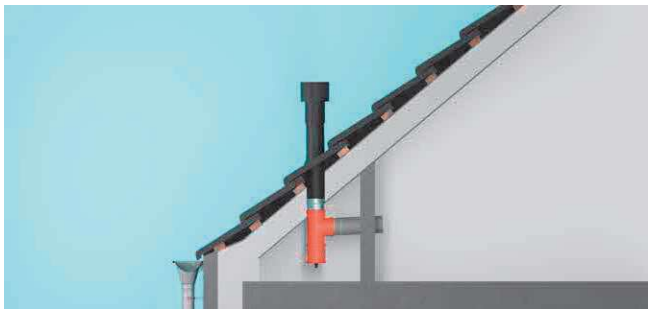
Install roof hood.
The roof hood is suitable for roof pitches from 25 – 45°. An opening must be made for the installation. The roof hood can then be installed. The air duct can be extended by up to 1.5 m and can therefore be flexibly adapted to the installation conditions.

Step 2



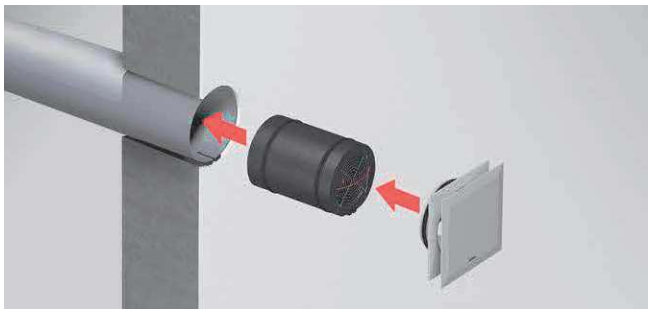
Attach pipe bend.
Install the 90° pipe bend (with extension if necessary), fix it to the roof structure and connect the condensate drain.

Step 3



Install wall sleeve.
Insert the wall sleeve into the 90° pipe bend and install it in the jamb wall.

Step 4



Install unit.
Once all components are securely fixed and the jamb wall has been completed, the unit and the inner panel can be installed.

Your order. **Just-in-time.**

Step I: Installation phase

Wall installation

Wall installation sleeve

Wall installation sleeve Length 500 mm

KWL 45-160 WH — Ref. no. 09319

Diameter 160 mm made of plastic (Length 500 mm). Incl. 2 structural protection covers for the internal and external wall sides, for protection against contamination in the installation phase. Condensate wedges for fixing the wall installation sleeve with a gradient for reliable condensate drainage.

Wall installation sleeve Length 800 mm

KWL 45-160 WH-L — Ref. no. 09320

Facade panel (stainless steel)

Facade panel

KWL 45-160 FB-E — Ref. no. 09321

Stainless steel panel for the external wall side.

Facade panel with coating

KWL 45-160 FB-B — Ref. no. 09322

Facade panel with additional coating for use in environments with high levels of air pollution or high salt concentrations in the air (near the coast).

Facade panel with white coating

KWL 45-160 FB-W — Ref. no. 09323

Facade panel with white coating.

Deep facade panel (stainless steel)

Deep facade panel

KWL 45-160 FBT-E — Ref. no. 09324

For installing the KWL EC 45-160 in external wall thicknesses of 250 - 300 mm. Includes seal.

Deep facade panel with coating

KWL 45-160 FBT-B — Ref. no. 09326

With transparent powder coating for use in environments with high levels of air pollution or high salt concentrations in the air.

Deep facade panel with white coating

KWL 45-160 FBT-W — Ref. no. 09340

Deep facade panel with white coating.

Window soffit

Installation kit soffit*

Installation kit soffit*

KWL 45-160 LE-RP — Ref. no. 08160

Consisting of plastic wall installation sleeve 500 mm and EPP soffit channel, fire protection class B1 (flame retardant). Incl. 2 structural protection covers for the internal and external wall sides, for protection against contamination in the installation phase. Condensate wedge for fixing the wall installation sleeve with a gradient for reliable condensate drainage.

*The element must always be overinsulated. It is not suitable for insulation thicknesses ≤ 10 cm and must not be used in this case.

Soffit grille

Soffit grille

KWL 45 LG — Ref. no. 04167

Stainless steel soffit grille with integrated condensate drain. Includes bonded seal.

Soffit grille with coating

KWL 45 LG-B — Ref. no. 04168

Soffit grille with additional coating for use in environments with high levels of air pollution or high salt concentrations in the air (near the coast).

Soffit grille with white coating

KWL 45 LG-W — Ref. no. 04169

Soffit grille with white coating.

Pitched roof

Installation kit pitched roof

Installation kit pitched roof
Colour: black

KWL 45-160 SD-RP-S	Ref. no. 40731

Pipe bend element incl. universal roof pan tile and roof hood.

Colour: Red

KWL 45-160 SD-RP-R	Ref. no. 40732

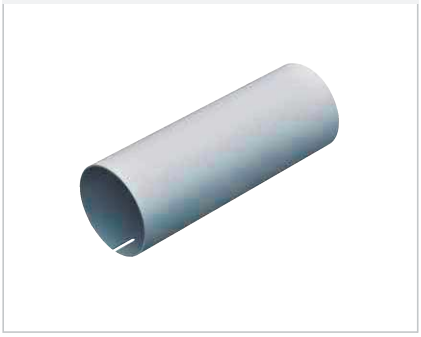
Pipe bend element

Pipe bend element

KWL 45-160 SD-RS	Ref. no. 40733

Pipe bend element without universal roof pan tile and roof hood.

Wall installation sleeve



Wall installation sleeve Length 500 mm

KWL 45-160 WH	Ref. no. 09319

Diameter 160 mm made of plastic (Length 500 mm). Incl. 2 structural protection covers for the internal and external wall sides, for protection against contamination in the installation phase. Condensate wedges for fixing the wall installation sleeve with a gradient for reliable condensate drainage.

Wall installation sleeve Length 800 mm

KWL 45-160 WH-L	Ref. no. 09320

Step II: Finished installation

KWL EcoVent Verso Unit

Unit

Unit

KWL EC 45-160	Ref. no. 09361

Consisting of plastic inner panel with filter, ceramic heat exchanger, flow straightener, insect screen for external wall side, EC fan with insect screen, removal tool (cord) and EPP half-shell base.

Efficiency class

A+ KWL EC 45-160 with additional room sensor

A KWL EC 45-160

Control set HS

Control set HS (top-hat rail)

KWL 45 STS-HS	Ref. no. 03007

Consisting of control element KWL 45 BEU and switching power supply KWL 45 SNH for top-hat rail (2 pcs). Allows the connection of up to 4 units. In case of more than 4 units, an additional KWL 45 SNH is required. Max. 8 units per control element possible.

Control set UP

Control set UP (flush-mounted)

KWL 45 STS-UP	Ref. no. 03006

Consisting of control element KWL 45 BEU and switching power supply KWL 45 SNU for installation in flush-mounted box. Allows the connection of up to 6 units. In case of more than 6 units, an additional KWL 45 SNH is required. Max. 8 units per control element possible.

Casing for surface installation

KWL-APG	Ref. no. 04270

KWL EC 45-160

Efficiency class

A+ KWL EC 45-160 with additional room sensor

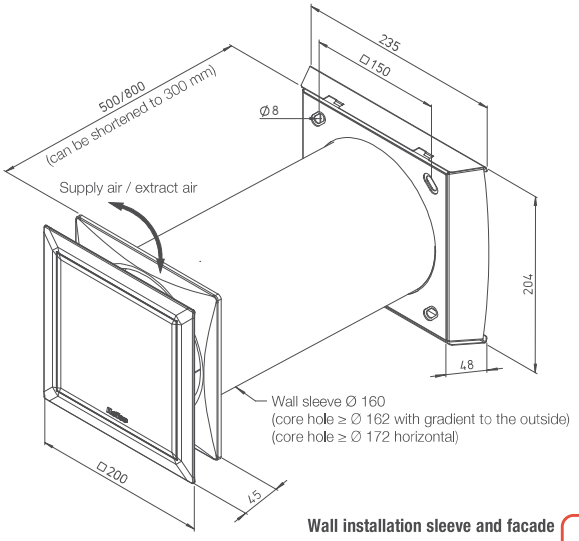
A KWL EC 45-160

BEST OF SHK AWARD

PLUS X AWARD 2016 achieved for: High Quality, Functionality, Ecology

EC

Dimensions KWL EC 45-160



Dimensions in mm

Wall installation sleeve and facade panel essential for unit installation.

KWL EC 45-160 belongs to the category of switching ventilation units with heat recovery.
DIBt-approved (general technical approval), Z-51.3-417.
It is intended for installation in the external building wall.
The passage of air is from the outside of the wall through a stainless steel panel. A closable plastic panel on the inner side of the wall, which has integrated sound insulation and a fibre fleece air filter (class ISO Coarse 50 % (G3)), is used for this purpose.
The KWL EC 45-160 has an EC axial fan which operates in reversing cycles. In this respect, the supply air phases, where the intake air flows into the building, continuously alternate with the extract air phases, which are characterised by the extraction of indoor air from the building.

The heat recovery is regenerative using a ceramic heat exchanger. During extract air operation, this absorbs heat from the indoor air (storage charge) to transfer it to the incoming intake air (storage discharge) in the subsequent supply air cycle. Heat recovery efficiency up to 88 % (according to current DIBt test procedure).
There is an insect screen on the outside of the ceramic heat exchanger in order to protect against course dirt.
In order to maintain balanced ventilation operation, at least 2 units are required for a residential unit, which operate out of phase in terms of operating phases (supply air/extract air). Depending on the total air requirement of the residential unit, more than 2 units are normally installed, whose individual volume flows are automatically coordinated using the central control unit.

Highlights KWL EC 45-160

- ☐ Economical, quiet EC axial fan.
- ☐ Elegant and timeless design.
- ☐ Tool-free, simple installation and dismantling of components.
- ☐ Integrated sound insulation.
- ☐ Integrated ISO Coarse 50 % (G3) air filter, easily accessible and changeable without tools.
- ☐ Simple, intuitive operation via two keys.
- ☐ LED display for operating mode and current ventilation level.
- ☐ Up to 8 controllable units.
- ☐ 5 ventilation levels: 14, 24, 32, 37, 45 m³/h.
- ☐ 4 operating modes: Heat recovery (= reversing operation), cross ventilation and supply air/extract air mode.
- ☐ Possibility of external activation from standby, cross ventilation, supply air mode or party mode (maximum ventilation level) by evaluating an external, potential-free contact.
- ☐ Intelligent integration of e.g. demand-controlled extract air fans via an extension module (accessories).
- ☐ Filter change indicator.
- ☐ Programming via PC.

Control

The central control unit with control element enables the controlling of up to 8 units.
5 ventilation levels and 4 operating modes can be set on the control element:
Heat recovery (= reversing operation), cross ventilation and supply air/extract air mode.
The user is reminded to replace the filter by flashing LEDs on the control element after a preset time period.

GUI user interface

It is possible to connect the control element to a PC or laptop via the USB interface with Helios software.
This makes it easy and convenient to access the control settings.

- ☐ Thus, the commissioning and entry of required values (e.g. filter replacement interval or minimum ventilation level) within a very short time.
All specified setting options can be changed quickly via the programme interface with the user-friendly assistance of appropriate help texts.

- ☐ The configuration settings can be stored directly on the PC or laptop and reloaded into the control system, if required.
The installation costs in a larger building can be reduced to a minimum.
If several identical ventilation systems are installed, the required configuration is carried out once for a ventilation system and it can then be transferred to any number of control elements.
Controller and software can be secured with a PIN.

Replacement air filter

– 2 pcs. ISO Coarse 50 % (G3)
ELF-KWL 45-160/3/3 No. 09366

Sound insulation element

Sound insulation element for use in the soffit channel, fire protection class B1.
KWL 45 SEL No. 04170

Sound insulation element for use in the wall sleeve, fire protection class B1.
KWL 45-160 SE No. 09362

Technical data

Unit[1]	KWL EC 45-160[1]				Ref. no. 09361
Flow rate at level supply air/extract air V̇ m³/h	❺ 45	❹ 37	❸ 32	❷ 24	❶ 14
Sound pressure L_{PA} dB(A) at 3 m	34	29	27	21	14
Sound power L_{WA}	52	47	45	39	32
Standard sound level diff. $D_{n,e,w}$ dB[2]	Facade panel 44 / Soffit				
Power consumption W	4.5	3.4	2.8	2.1	1.6
Heat recovery efficiency[3]	up to 88 %				
Operating voltage mains adapter	Input 230 V~, 50/60 Hz / Output 12 V⎓				
Rated current mA	42	32	27	21	17
El. supply line mains adapter[4]	NYM-O 2 x 1.5 mm²				
El. supply line power supply control[4]	NYM-O 2 x 1.5 mm²				
El. supply line to fan[5]	J-Y (ST) Y 3 x 0.8 mm				
Protection class III, protection cat.	IP20				
Wiring diagram no.	1091 / 1093				
Temperature operating range	– 12 °C to + 40 °C				
Weight (unit+inner panel) approx. kg	2.8				

[1] The required wall installation sleeve and facade panel must be ordered separately.
[2] Test value. [3] According to latest DIBt test procedure. [4] Use of NYM-J 3 x 1.5 mm² is permitted.
[5] Use of J-Y (ST) Y 2 x 2 x 0.8 mm is permitted.

Unit with inner panel
KWL 45-160 No. 09361
Consists of design inner panel with filter, ceramic heat exchanger, flow straightener, insect screen, EC axial fan with protection grille, removal tool (cord) and EPP half shell base.

Wall installation sleeve
Length 500 mm
KWL 45-160 WH No. 09319
Length 800 mm
KWL 45-160 WH-L No. 09320
Ø 160 mm, plastic, incl. condensate wedge and 2 covers.

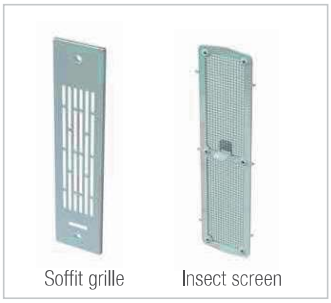
Facade panel
Made of stainless steel
KWL 45-160 FB-E No. 09321
With additional coating
KWL 45-160 FB-B No. 09322
For use in environments with severe air pollution or high salt concentration in the air (near the coast).
With white coating
KWL 45-160 FB-W No. 09323

Facade panel DEEP
Made of stainless steel
KWL 45-160 FBT-E No. 09324
For installation in external wall thicknesses from 250 – 300 mm.
With additional coating
KWL 45-160 FBT-B No. 09326
For use in environments with severe air pollution or high salt concentration in the air (near the coast).
With white coating
KWL 45-160 FBT-W No. 09340

Control set UP
KWL 45 STS-UP No. 03006
Consists of control element KWL 45 BEU and switching power supply KWL 45 SNU for installation in flush-mounted box. Allows the connection of up to 6 units. In case of more than 6 units, an additional KWL 45 SNU is required. Max. 8 units per control element.

Reference
A flush-mounted box (depth 61 mm) is required for the control element KWL 45 BEU and for each installed switching power supply KWL 45 SNU.
Control element (w/o adapter)
KWL 45 BEU No. 03041

Control set HS
KWL 45 STS-HS No. 03007
Consists of control element KWL 45 BEU and switching power supply KWL 45 SNH for top-hat rail (2 pcs). Allows the connection of up to 4 units. In case of more than 4 units, an additional KWL 45 SNH is required. Max. 8 units per control element.



Switching power supply UP
KWL 45 SNU No. 03008
For extending the control set KWL 45 STS-UP from 6 to 8 units.
Input 230 V AC, 50/60 Hz. output 12 V DC / 1.9 A for flush-mounted installation in insulated wall.
Output voltage according to SELV protection class 3.

Switching power supply HS
KWL 45 SNH No. 03001
For extending the control set KWL 45 STS-HS from 4 to 8 units.
Input 230 V AC, 50/60 Hz.
Output 12 V DC / 1.5 A for installation in distribution box (2 pcs). Output voltage according to SELV protection class 3.

Installation package soffit*
KWL 45-160 LE-RP No. 08160
With wall sleeve and plaster protective cover. Made of EPP, fire protection class B1.

Soffit grille
Made of stainless steel
KWL 45 LG No. 04167
External grille with integrated condensate drain and seal.
Dim. mm (H x W) 324 x 74
With additional coating
KWL 45 LG-B No. 04168
For use in environments with severe air pollution or high salt concentration in the air (near the coast).
With white coating
KWL 45 LG-W No. 04169

Insect screen
KWL 45 ISL No. 03004
Made of stainless steel.
For installation package soffit (KWL 45-160 LE-RP).
Suitable for retrofitting.
Dim. mm (H x W) 203 x 48

Installation kit pitched roof
Colour: Black
KWL 45-160 SD-RP-S No. 40731
Colour: Red
KWL 45-160 SD-RP-R No. 40732
Pipe bend element incl. universal roof pan tile and roof hood.

Pipe bend element
KWL 45-160 SD-RS No. 40733
Pipe bend element without universal roof pan tile and roof hood.

Wall stone
Length 365 mm
KWL 45-160 WS No. 09302
Length 490 mm
KWL 45-160 WS-L No. 09306
Installation aid for brickwork. Made of EPS, fire protection class B1. Replaces the otherwise necessary core hole drilling.

Casing for surface installation
KWL-APG No. 04270

Extension module
KWL 45 EM No. 03012
For the combined operation of an extract air system, e.g. according to DIN 18017, pt. 3 with KWL EC 45-160 (combined ventilation). Installation in flush-mounted box.
Dim. mm (WxHxD) 40 x 40 x 29

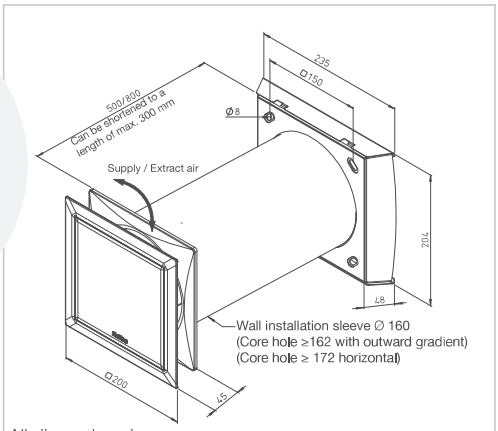
Room sensor
HY 3 No. 01359
With internal scale
HY 3 SI No. 01360
Electromechanical humidity controller for connection to the external contact of the control element. For surface installation. Function type can be adjusted using Helios software or control element.
Attention: Parallel use with KWL-EM is not possible.

* The element must always be overinsulated. It is not suitable for insulation thicknesses ≤ 10 cm and must not be installed in this case.

Unlimited possibilities.
For every application.

KWL EC 45-160
Variant with external facade

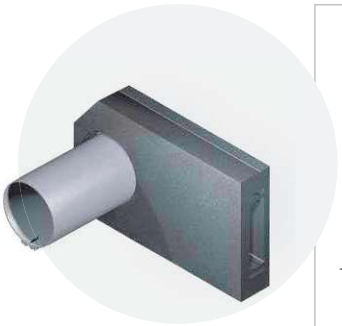
- For renovations and new builds.
- Minimal space requirement due to compact dimensions.
- For wall thicknesses to 800 mm.
- Robust stainless steel external panel in elegant design.
- Internal panel fits extract air fans M1 and ELS and KWL 45 soffit element.

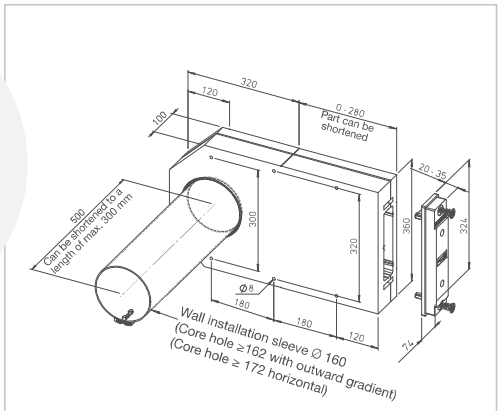


All dimensions in mm

KWL 45-160 LE-RP
Variant with window soffit

- Apart from the grille in the window bar, no visible parts on the facade.
- Flexible installation is possible on left or right of window without conversion.
- Easy integration in thermal insulation system due to installation without tools.
- Can be shortened as required with saw or hot wire.

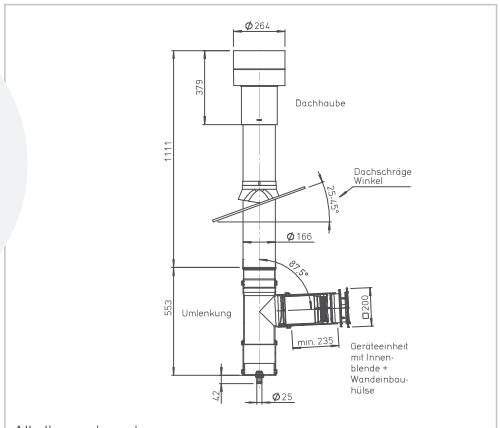




All dimensions in mm

KWL 45-160 SD-RP..
Variant for pitched roof

- Ideal for attic apartments.
- Rain and snow-proof design.
- Air duct can be extended by up to 1.5 m and can therefore be flexibly adapted to the installation conditions.
- Safe condensate drainage (integrated condensate drain connector).
- Suitable for roof pitches from 25 – 45°.



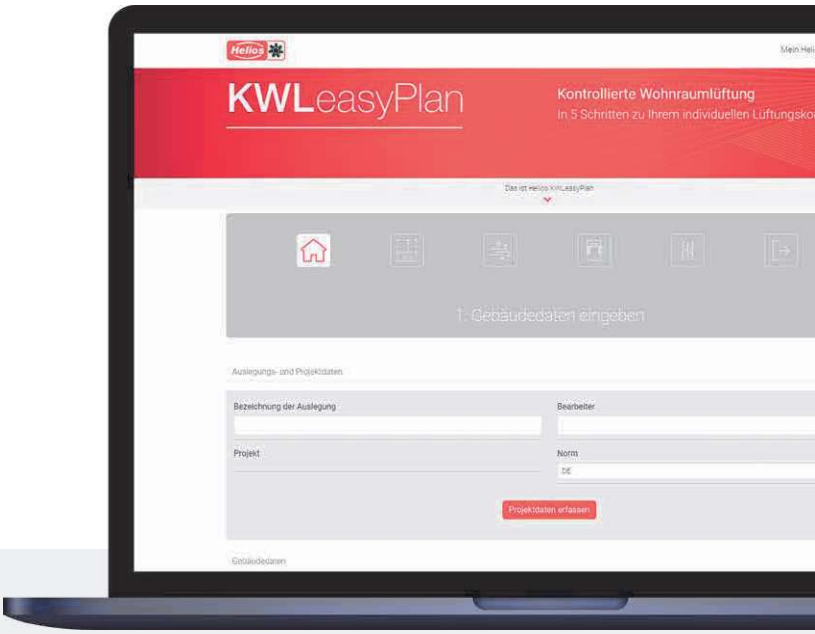
All dimensions in mm

Ready for the next step?

Our online software www.KWLeasyPlan.de takes all the hassle out of creating a ventilation concept and the DIN-compliant design of a ventilation system.

> Smart assistants quickly guide you to your goal
The online software is divided into three steps. The user guidance through each step is always intuitive and dialogue-oriented and maintains an overview at all times:

www.KWLeasyPlan.de



1.

Creation of a ventilation concept

- Check whether a ventilation measure is required for your project with just a few clicks and entering the living area.
- The results can be determined for both single family houses and apartment buildings.

2.

Select and design the ventilation measure

- If a ventilation measure is required, you can choose between different solutions for each residential unit.
- Once the rooms per residential unit are entered, KWLeasyPlan automatically creates a DIN-compliant ventilation design. Experienced users can also adjust this design manually.
- The air volumes per residential unit are clearly illustrated in tabular form for each room.
- Finally, the location of the ventilation unit must be selected and the programme will automatically provide a schematic diagram of the ventilation unit including the air volume details.

3.

The Material Assistant

- The ventilation design results can be transferred directly to the Material Assistant.
- The Material Assistant suggests suitable Helios products and system components – perfect for inexperienced or occasional users. Of course, professionals can adjust the selection if necessary.
- The generated material list generally includes all required system components for the domestic ventilation system and is perfectly suited for quotation requests or for an initial cost estimate.

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