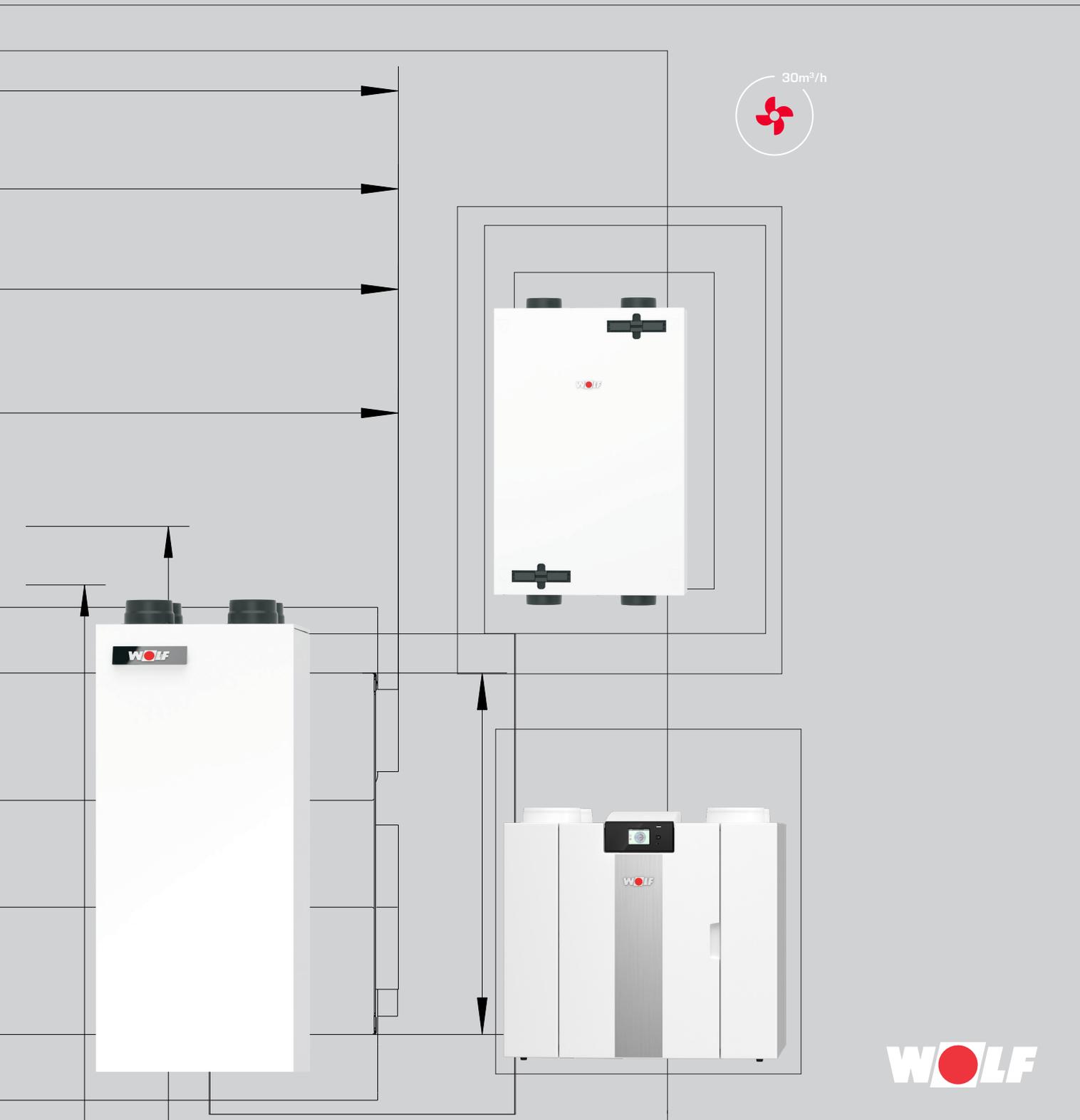
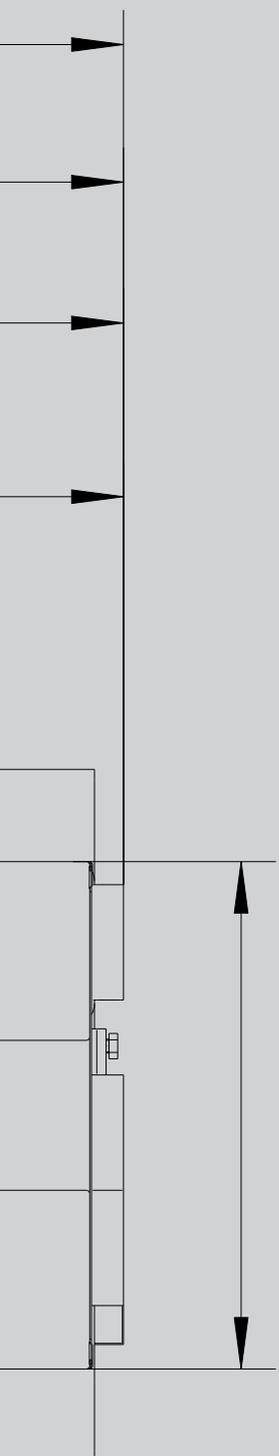


# WOLF MECHANICAL VENTILATION

CWL-2 / CWL EXCELLENT / CWL-T EXCELLENT / CWL-F EXCELLENT / CWL-D / FWL PUSHPULL





## THE EXTENSIVE PRODUCT RANGE

from system supplier WOLF offers the ideal solution for commercial and industrial buildings,  
new constructions and modernisation projects alike.  
The control program leaves no wish unfulfilled.  
All equipment is easy to operate, highly energy efficient and reliable.  
The products are easily and quickly installed and maintained.

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**Removable** plastic cross and countercurrent plate heat exchanger

**Heat recovery** of up to 99%

**One fan each for supply and extract air,** variable speed; low energy consumption thanks to DC fans

**Constant flow control with genuine flow rate control** keeps the air volume constant at any selected fan speed. Consistently high efficiency is achieved and adjustments are limited to a minimum

**Automatic frost stat control** offers optimum protection against freezing

**Unit fully wired,** filter change indicator on the 4-step switch BM-2, Amazon Alexa

Clean, pollen-free supply air - ventilation with your windows closed, cutting out street noise (not only for allergy sufferers)

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## ADVANTAGES OF WOLF MECHANICAL VENTILATION

CWL-2 / CWL EXCELLENT

**Standard connection options**  
available for air quality sensor, humidity  
sensor, electrical preheating and reheating coil



### Design software

- Design software based on DIN 1946-6.
- The exceptional level of user friendliness enables competent, reliable air volume calculation in next to no time.
- In addition, the software provides a complete list of materials, a matching quotation, extensive supplementary information and a full ventilation concept in accordance with DIN 1946-6.
- Download from [www.wolf.eu](http://www.wolf.eu)

## Mechanical ventilation

### Unit versions



MECHANICAL VENTILATION		CWL-2-225	CWL-2-325	CWL-2-400	CWL-300 Excellent	CWL-400 Excellent	CWL-T-300 Excellent	CWL-F-150 Excellent	CWL-F-300 Excellent	CWL-D-70
Max. air flow rate	m <sup>3</sup> /h	225	325	400	300	400	300	150	300	70
Mounting type	Wall mounting	●	●	●	●	●	○	●	●	●
	Ceiling mounting	○	○	○	○	○	○	●	●	○
	Floor erection	●	●	●	●	●	●	○	○	○
Operating panel on the unit		●	●	●	●	●	○	○	○	●
Remote control	BM-2	●	●	●	●	●	●	●	●	○
	RM-2	●	●	●	●	●	●	●	●	○
	RM-2 Wireless	●	●	●	●	●	●	●	●	○
	4-step switch	●	●	●	●	●	●	●	●	○
Bypass	integrated	●	●	●	●	●	●	●	●	●
Electr. preheater coil	integrated	●	●	●	●	●	●	●	○	●
	Accessories	○	○	○	○	○	○	○	●	○
Hydr. reheater coil	Accessories	○	○	○	○	○	●	○	○	○
Electr. reheater coil	Accessories	●	●	●	●	●	●	●	●	○
Enthalpy heat exchanger	Accessories	○	●	●	●	●	○	○	●	○
Air quality, moisture and CO <sub>2</sub> sensor	Accessories	●	●	●	●	●	●	●	●	●
Passive house certificate		●	●	●	●	●	●	●	●	○
DIBt approval		applied for	applied for	applied for	●	●	●	●	●	applied for

#### GENERAL INFORMATION

Units with air handling rates of 50 - 400 m<sup>3</sup>/h.

Suitable for detached houses and apartment buildings as well as offices and apartments.

The CWL Excellent mechanical ventilation system with heat recovery extracts stale air from the kitchen, bathroom and toilet areas. This air is routed across a cross flow and countercurrent plate heat exchanger and is expelled to the outside.

At the same time, fresh outdoor air is drawn into the system, cleaned by an air filter, heated by the cross and countercurrent heat exchanger and routed into rooms such as the living room, bedrooms and children's rooms.

## CONNECTION OPTIONS

To cope with varied installation situations, WOLF offers the unit with 2 different connection options:

- Right-hand version 4/0
- Left-hand version 4/0

The access door for filter servicing opens either to the left or to the right.

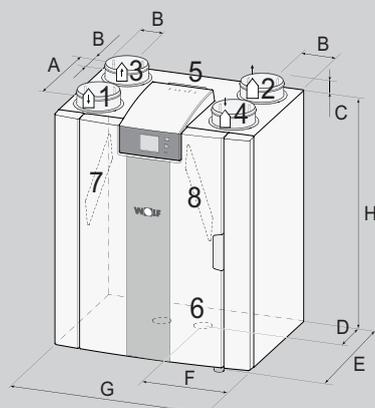
The position of the connections for supply air, extract air, extract air and outdoor air is as illustrated below.



CWL-2		225
Energy efficiency class		<b>A</b>
Max. air handling rate at 150 Pa	m <sup>3</sup> /h	225
Heat recovery max.	%	98
ErP heat recovery	%	92
Heat recovery efficiency according to PHI <sup>1)</sup>	%	89
ErP specific power consumption (SPI)	W/m <sup>3</sup> /h	0.17
Specific power input (SPI) according to PHI <sup>1)</sup>	W/m <sup>3</sup> /h	0.25
<b>Dimensions</b>		
Duct connection diameter	mm	125
Height	mm	650
Width	mm	600
Depth	mm	455
Filter		ISO Coarse 60% [G4], ePM1 50% [F7] and active carbon outdoor air filter ePM2.5 50% [M6] - as accessories
Power factor	Cos φ	0.336 - 0.572
Power consumption	W	8 - 92
Power consumption (without preheating coil)	W	61.5 [at 225 m <sup>3</sup> /h and 100 Pa]
Weight	kg	29
IP rating	IP	30
Electrical connection		230 V / 50 Hz

<sup>1)</sup> PHI = Passivhaus Institut

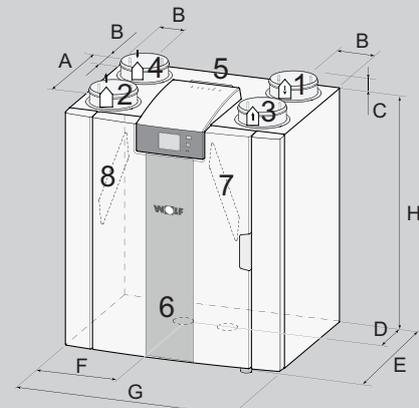
Connection 4/0 L



1 Supply air (living room)  
2 Exhaust air (to the outside)

3 Extract air (living room)  
4 Outdoor air (from the outside)

Connection 4/0 R



5 Electrical connection  
6 Drain connection

Type	A	B	C	D	E	F	G	H
CWL-2-225	323	93	42	210	458	198	600	650

# Mechanical ventilation

## CWL-2-325/400

### Technical Specification

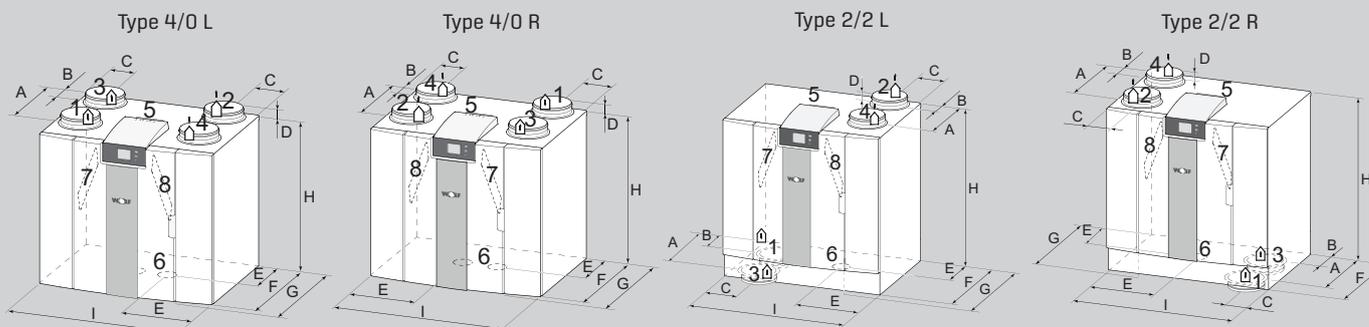
- Bypass as standard
- Electric integrated preheating coil 1000 W as standard
- Including ball trap
- Also available with enthalpy heat exchanger for moisture recovery



	CWL-2	325	325 Enthalpy	400
Energy efficiency class <sup>1)</sup>		<b>A</b>	<b>A</b>	<b>A</b>
Max. air handling rate at 150 Pa	m <sup>3</sup> /h	325	325	400
Heat recovery max.	%	98	98	99
ErP heat recovery	%	91	83	92
PHI heat recovery <sup>2)</sup>	%	91	86	90
ErP specific power consumption [SPI]	W/m <sup>3</sup> /h	0.15	0.14	0.16
PHI specific power consumption [SPI] <sup>2)</sup>	W/m <sup>3</sup> /h	0.21	0.21	0.22
<b>Dimensions</b>				
Duct connection diameter	mm	160	160	180
Height 4/0	mm	650	650	650
Height 2/2	mm	710	710	710
Width	mm	750	750	750
Depth	mm	560	560	560
Filter		ISO coarse 60% [G4] [ePM1 50% [F7] with active carbon] Outdoor air filter ePM2.5 50% [M6] as accessory		
Power factor	Cos φ	0.34 - 0.54		0.27 - 0.56
Power consumption	W	6 - 145		8 - 178
Power consumption (without preheating coil)	W	42.2 (at 225 m <sup>3</sup> /h and 100 Pa)		87 (at 300 m <sup>3</sup> /h and 140 Pa)
Weight	kg	37	37	38.5
IP rating	IP	30	30	30
Electrical connection		230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz

<sup>1)</sup> A\* with at least two sensors

<sup>2)</sup> PHI = Passivhaus Institute



1 Supply air [living room]  
2 Exhaust air [to the outside]

3 Extract air [living room]  
4 Outdoor air [from the outside]

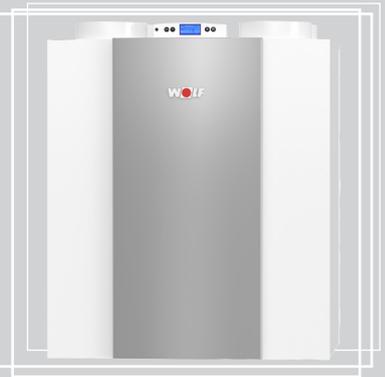
5 Electrical connection  
6 Drain connection

7 Extract air filter  
8 Outdoor air filter

Type	A	B	C	D	E	F	G	H	I
CWL-2-325	410	130	120	45	270	510	560	650	750
CWL-2-400	410	130	120	45	270	510	560	650	750

# Mechanical ventilation CWL-300/400 Excellent Specifications

- Bypass as standard
- Electric integrated preheating coil 1000 W as standard

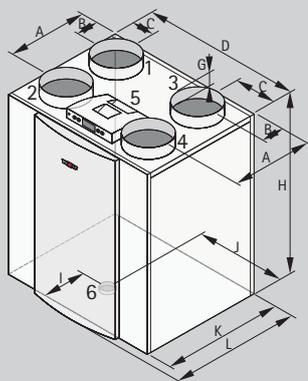


CWL EXCELLENT		300	400
Energy efficiency class <sup>1)</sup>		<b>A</b>	<b>A</b>
Max. air handling rate at 150 Pa	m <sup>3</sup> /h	300	400
Heat recovery max.	%	89	93
ErP heat recovery	%	86	85
PHI heat recovery <sup>2)</sup>	%	84	84
ErP specific power consumption [SPI]	W/m <sup>3</sup> /h	0.21	0.24
PHI specific power consumption [SPI] <sup>2)</sup>	W/m <sup>3</sup> /h	0.26	0.29
<b>Dimensions</b>			
Duct connection diameter	mm	160	180
Height	mm	765	765
Width	mm	677	677
Depth	mm	564	564
Filter		ISO coarse 60% [G4] [ePM1 50% [F7] and active carbon] Outdoor air filter ePM2.5 50% [M6] as accessory	ISO coarse 60% [G4] [ePM1 50% [F7] and active carbon] Outdoor air filter ePM2.5 50% [M6] as accessory
Power factor	Cosφ	0.37 - 0.50	0.38 - 0.61
Power consumption	W	3 - 138	3 - 172
Power consumption [without preheating coil]	W	58 W [at 225 m <sup>3</sup> /h and 100 Pa]	84 W [at 300 m <sup>3</sup> /h and 100 Pa]
Weight	kg	38	38
IP rating	IP	30	30
Electrical connection		230 V / 50 Hz	230 V / 50 Hz

<sup>1)</sup> A\* with at least two sensors

<sup>2)</sup> PHI = Passivhaus Institute

Connection 4/0 R

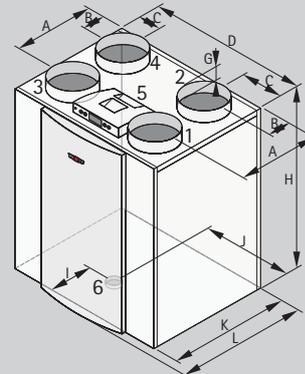


1 Supply air (living room)  
2 Exhaust air (to the outside)

3 Extract air (living room)  
4 Outdoor air (from the outside)

5 Electrical connection  
6 Drain connection

Connection 4/0 L



Type	A	B	C	D	G	H	I	J	K	L
CWL-300/400 Excellent R	388	138	138	677	45	765	198	397	526	564
CWL-300/400 Excellent L	388	138	138	677	45	765	328	280	526	564

# Mechanical ventilation

## CWL-T-300 Excellent Specifications

CWL-T EXCELLENT		300
Energy efficiency class <sup>1)</sup>		<b>A</b>
Max. air handling rate at 150 Pa	m <sup>3</sup> /h	300
Heat recovery max.	%	93
ErP heat recovery	%	85
PHI heat recovery <sup>2)</sup>	%	84
ErP specific power consumption (SPI)	W/m <sup>3</sup> /h	0.22
PHI specific power consumption (SPI) <sup>2)</sup>	W/m <sup>3</sup> /h	0.28
<b>Dimensions</b>		
Duct connection diameter	mm	160
Height	mm	1287.5
Width	mm	475
Depth	mm	585
Filter		ISO coarse 60% [G4] (ePM1 50% [F7] and active carbon) outdoor filter ePM2,5 50% [M6] - as accessory
Power factor	Cos φ	0.32 - 0.43
Power consumption	W	10 - 164
Power consumption (without preheating coil)	W	86 (at 225 m <sup>3</sup> /h and 100 Pa)
Weight	kg	50
IP rating	IP	20
Electrical connection		230 V / 50 Hz

<sup>1)</sup> A+ with at least two sensors

<sup>2)</sup> PHI = Passivhaus Institute

### Installation options

optionally to the right or the left of the heat generator



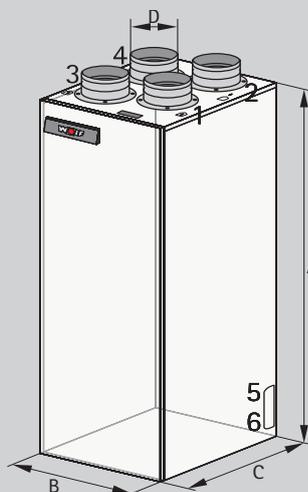
In conjunction with TOB oil condensing boiler



In conjunction with CGS-2 gas condensing centre

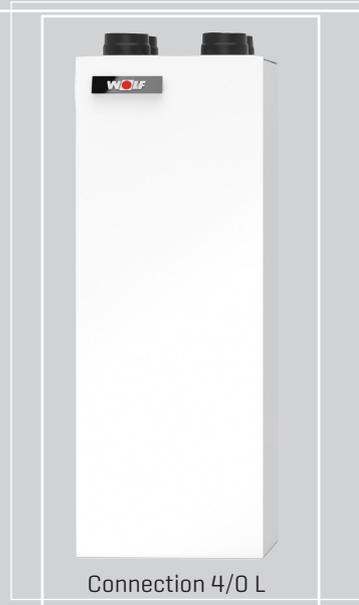
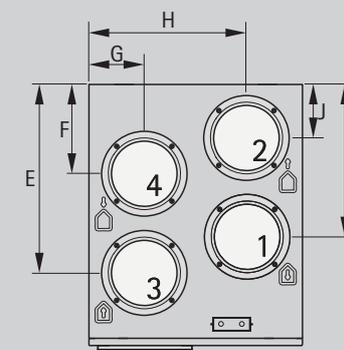


In conjunction with the BWL-1S split heat pump



Connection 4/0 L

- 1 Supply air (living room)
- 2 Exhaust air (to the outside)
- 3 Extract air (living room)
- 4 Outdoor air (from the outside)
- 5 Electrical connection
- 6 Drain connection



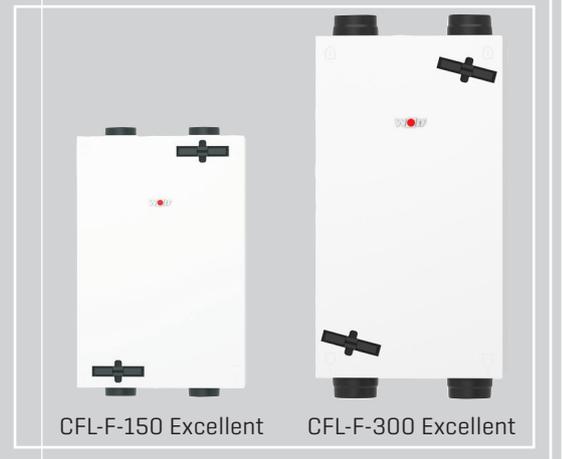
Connection 4/0 L

- Removable plastic cross and countercurrent plate heat exchanger
- Bypass as standard
- Electric 1000 W preheating coil integrated in the appliance
- Filter ISO coarse 60% [G4], ePM1 50% [F7] as optional accessory
- Trap included
- Control via BM-2 programming unit
- The automatic frost stat control offers optimum protection against freezing
- Fully wired unit with filter change indicator on the programming unit or the 4-step switch
- Passive house certificate
- DIBt approval

Type	A	B	C	D	E	F	G	H	I	J
CWL-T-300 Excellent	1287.5	475	585	160	424	201	123	352	343	121

## Mechanical ventilation Slimline unit CWL-F-150/300 Excellent Specifications

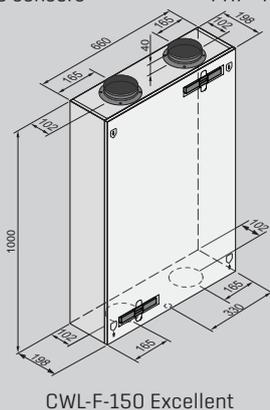
- Compact, slimline design for ceiling and wall mounting
- Bypass as standard
- Filter ISO coarse 60% [G4], ePM1 50% [F7] as optional accessory
- Standard on the CWL-F-150 Excellent: electrical integrated preheating coil 375W



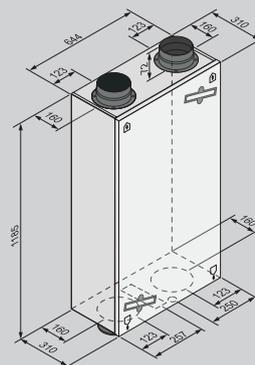
CWL-F EXCELLENT		150	300
Energy efficiency class <sup>1)</sup>		<b>A</b>	<b>A</b>
Max. air handling rate at 150 Pa	m <sup>3</sup> /h	150	300
Heat recovery max.	%	94	92
ErP heat recovery	%	89	84
PHI heat recovery <sup>2)</sup>	%	84	85
ErP specific power consumption [SPI]	W/m <sup>3</sup> /h	0.27	0.24
PHI specific power consumption [SPI] <sup>2)</sup>	W/m <sup>3</sup> /h	0.35	0.31
<b>Dimensions</b>			
Duct connection diameter	mm	125	160
Height	mm	1000	1185
Width	mm	660	644
Depth	mm	198	310
<b>Filter</b>			
		ISO coarse 60% [G4] (ePM1 50% [F7] and active carbon) outdoor filter ePM2.5 50% [M6] as accessory	ISO coarse 60% [G4] (ePM1 50% [F7] and active carbon) Outdoor air filter ePM2.5 50% [M6] as accessory
Power factor	Cos φ	0.34 - 0.49	0.39 - 0.53
Power consumption	W	11 - 72	9 - 162
Power consumption (without preheating coil)	W	52 (at 125 m <sup>3</sup> /h and 100 Pa)	79 (at 225 m <sup>3</sup> /h and 100 Pa)
Weight	kg	25	37
IP rating	IP	30	30
Electrical connection		230V / 50Hz	230V / 50Hz

<sup>1)</sup> A\* with at least two sensors

<sup>2)</sup> PHI = Passivhaus Institute



CWL-F-150 Excellent



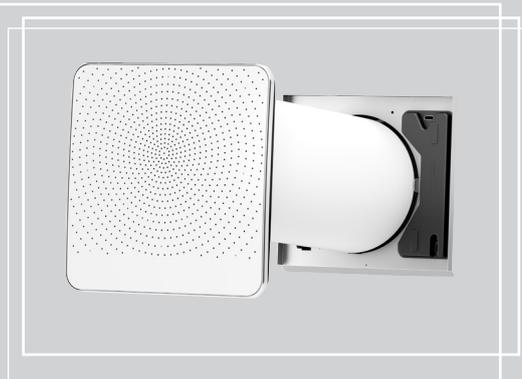
CWL-F-300 Excellent

## Mechanical ventilation

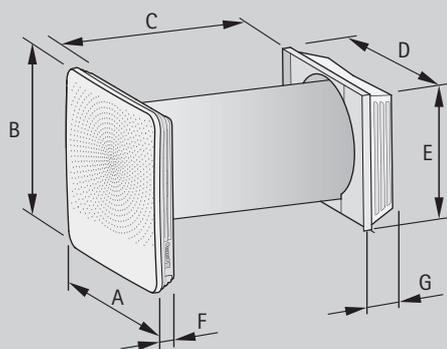
### CWL-D-70

#### Specifications

- White internal panel
- Outdoor wall hood in white (RAL 9010) or stainless steel
- Clean, pollen-free supply air - ventilation with your windows closed, cutting out street noise (not only for allergy sufferers)
- Removable plastic countercurrent plate heat exchanger
- Heat recovery min. 87%
- Bypass as standard
- Automatic frost stat control
- Low energy consumption thanks to DC fans
- Electric 175 W preheating coil integrated in the appliance
- ISO coarse 60% [G4] filter  
ePM1 50% [F7] as optional accessory for supply air  
Filter change indicator on the unit
- Unit fully wired
- DIBt approval applied for



CWL-D		70
Energy efficiency class		<b>A</b>
Max. air handling rate	m <sup>3</sup> /h	70
Air handling rate at fan stage 1 / 2 / 3 / 4 / 5		15 / 25 / 40 / 55 / 70
Heat recovery max.	%	87
ErP heat recovery	%	79
ErP specific power consumption [SPI]	W/m <sup>3</sup> /h	0.2
<b>Dimensions</b>		
Unit diameter	mm	250
Core hole bore	mm	∅ 260 (with 3° slope towards the outside)
for wall thickness incl. accessories	mm	500 - 600
for wall thickness not incl. accessories	mm	300 - 500
Filter		2x ISO coarse 60% [G4] (extract air) & 1x ISO coarse 60% [G4] (supply air) [ePM1 50% [F7] as accessory]
Weight	kg	14
IP rating	IP	Indoor unit IP 20 / front cover IP X4
Electrical connection		230 V / 50 Hz



#### ACCESSORIES

- Extension in white (RAL 9010) or stainless steel
  - Length: 200 mm For wall thicknesses 350 - 300 mm
  - Length: 150 mm For wall thicknesses 400 - 350 mm
  - Length: 100 mm For wall thicknesses 450 - 400 mm
  - Length: 50 mm For wall thicknesses 500 - 450 mm
- Additional PCB (for connecting sensors)
- Internal CO<sub>2</sub> sensor and humidity sensor
- ON/OFF switch optional
- ISO coarse 60% [G4] and ePM1 50% [F7] filter sets

Type	A	B	C	D	E	F	G
CWL-D-70	398	398	500 - 600	355	315	65	85

**CONTROL**

Operating panel

**RM-2 ROOM MODULE (EBUS)  
ROOM MODULE RM-2 (WIRELESS)**

4 in 1: Automatic detection of the function based on the system components:

- Room temperature controller with 1-day / 7-day program
- Remote control for mechanical ventilation unit CWL Excellent / CWL 2 [simultaneous with room temperature control]
- Remote control of all heating or mixing circuits [with BM/BM-2 in the system]
- Remote control for up to 7 individual heating circuits with multiple RM-2 units [with BM/BM-2 in the system]
- Illuminated touchscreen
- Integrated room temperature sensor
- Connection via eBus interface
- Many functions: Holiday mode, fault messages, temperature displays, etc.
- Compatible with WOLF Smartset

**BASE WIRELESS**

- Radio receiver with eBus connection for wireless communication with RM-2 Wireless

**MICROPROCESSOR CONTROL UNIT**

WITH DISPLAY FOR ADJUSTING AND DISPLAYING THE INDIVIDUAL CONTROL FUNCTIONS

- Set value adjustment of the supply and extract air flow rate
- Fans ON / OFF
- Programmable pressure compensation or pressure balancing - i.e. if required, overpressure or underpressure can be deliberately created inside the accommodation via an adjustable value
- Filter alarm on the display (filter service)
- Frost protection
- Displaying the selected values

**BM-2 PROGRAMMING UNIT**

- Fixed time programs can be selected
- 3.5" colour display
- Simple user prompts via plain text display
- Operated by rotary selector with pushbutton function
- 4 function keys for frequently used functions
- microSD card slot for software update
- Installation as a remote control in wall mounting base

## MECHANICAL VENTILATION

### CWL-2 / CWL Excellent Control accessories

#### CONTROL ACCESSORIES



##### AIR QUALITY SENSOR

Mixed gas sensor to measure the air quality;  
output signal 0-10 V, power supply 24 V;

Extension kit for additional functions required for CWL-180 Excellent and CWL-F-300 Excellent

- ensures that a greater amount of supply air is fed in automatically when the air quality worsens (e.g. in the living room) (ventilation)



##### HUMIDITY SENSOR

For measuring relative humidity;  
output signal 0-10 V, power supply 24 V;

Extension kit for additional functions required for CWL-180 Excellent and CWL-F-300 Excellent

- ensures that a greater amount of air is extracted automatically when there is excessive humidity (e.g. in the bathroom) (ventilation)



##### CO<sub>2</sub> SENSOR

Required for CO<sub>2</sub>-dependent operation

Fully wired, as control variable for the CO<sub>2</sub>-dependent control

Output signal 0-10 V, power supply 24 V

Extension kit for additional functions required for CWL-180 Excellent and CWL-F-300 Excellent

- ensures that a greater amount of supply air is fed in automatically when the CO<sub>2</sub> content is excessive



##### EBUS CO<sub>2</sub> SENSOR, FLUSH MOUNTED

for measuring the CO<sub>2</sub> content,  
output signal 0-10 V, power supply 24 V



##### WOLF LINK HOME LAN/WLAN INTERFACE MODULE

Consisting of:

Interface module WOLF LINK HOME, assembly/operating instructions, connection cable, network cable

- Integrated LAN and WLAN interface for integrating WOLF heating systems into a network or
- Connection of WOLF heating appliances to the WOLF Wibus Smarthome System

Available for CWL-2 Excellent

**Note:** Only used in conjunction with BM-2



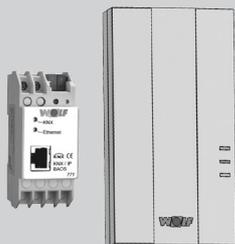
##### WOLF LINK PRO – OUTDOOR INTERFACE MODULE

Consisting of:

Interface module WOLF LINK PRO, installation and operating instructions, eBus cable, power supply unit, network cable

- LAN and WLAN interface module for wall mounting or mobile use
- Connection of WOLF heating appliances to the WOLF Smartset portal / app
- Mobile application for setting heating system parameters
- Power supply via power supply unit or USB

**Note:** Only used in conjunction with BM-2



#### **KNX - OUTDOOR INTERFACE KIT**

Consisting of:  
ISM8e interface module, KNX-IP-BAOS module,  
installation/operating instructions, network cable

- For integrating WOLF ventilation units into a KNX network

**Note:** Only used in conjunction with BM-2



#### **MOD-BUS - OUTDOOR INTERFACE KIT**

Interface kit for integrating WOLF ventilation units into a Modbus network



#### **EXTENSION KIT FOR ADDITIONAL FUNCTIONS**

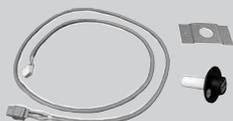
With connection options for air quality sensor, humidity sensor and reheating coil

Available for CWL-180 Excellent  
CWL-F-300 Excellent



#### **MODULAR DISTRIBUTOR RJ12**

Consisting of:  
Cable and splitter



#### **RH DUCT SENSOR**

For measuring relative humidity;



#### **CWL SERVICE TOOL**

For easier programming  
Free software can be found on our homepage



#### **4-STEP SWITCH WITH FILTER CHANGE INDICATOR**

- Position 1: Ventilation for moisture protection e.g. during absence (holiday)
- Position 2: Reduced ventilation
- Position 3: Nominal ventilation rate, corresponds to standard operation when the occupants are present
- Position 4: Intensive ventilation, e.g. during a party, when there are visitors (high oxygen consumption)

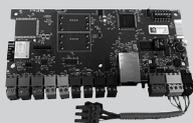


#### **4-STAGE REMOTE CONTROL**

with filter change indicator  
consisting of receiver and transmitter

## MECHANICAL VENTILATION

CWL-2 / CWL Excellent  
Control accessories



### ADDITIONAL PCB

when using a humidity sensor,  
CO2 sensor and air quality sensor;

NC/NO contact 0-10V input, 24V output

Note: Housing for additional PCB item no. 2747551 required



### HOUSING FOR ADDITIONAL PCB

Additional PCB CWL-2,

WOLF Link Home

## Mechanical ventilation

CWL-2 / CWL Excellent  
Accessories



### ELECTRICAL PREHEATING COIL OR REHEATING COIL

- **CONTROL OF A REHEATING COIL** [1000 W] - the reheating coil heats the supply air to an adjustable value



### ENTHALPY HEAT EXCHANGER FOR MOISTURE RECOVERY

Hygiene: AATCC certificate [VDI 6022]  
Heat recovery according to EN 308: 78%  
Moisture recovery 59%

Available for CWL-2-325/400

CWL-300/400 Excellent

CWL-F-300 Excellent



### CONDENSATE REMOVAL PUMP WITH POTENTIAL-FREE ALARM OUTPUT, FULLY WIRED

Consisting of:

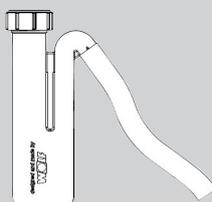
Condensate pump with potential-free alarm output, PVC hose 10 mm (6 m long),  
non-return valve, condensate inlet adaptor



### SUMMER CASSETTE

Alternative to in-line heat exchangers  
without heat recovery

Available for CWL-180-Excellent



### TRAP

Effective height 90 mm

Available for CWL-300/400 Excellent



#### BALL TRAP



#### INSTALLATION BASE

With front panel as an alternative  
Available for CWL-2 Excellent



#### UNIAIR PURE

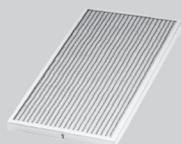
Electrostatic air filter including filter ePM2.5 99%  
Installation in the supply air

Available for CWL-2-225  
CWL-2-325/400  
CWL-300/400 Excellent  
CWL-F/T 300 Excellent  
CWL-F-150 Excellent



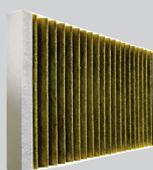
#### FILTER SERVICE SET ISO COARSE 60% (G4)

Outdoor air or extract air filter, 2 x ISO coarse 60% (G4)



#### FILTER SERVICE SET EPM1 50% (F7)

Outdoor air filter, 2 x ePM1 50% (F7)



#### COMBI SERVICE SET, ACTIVATED CHARCOAL FILTER

Outdoor air filter, antiallergenic 2 x ePM2.5 50% (M6)

Available for CWL-2-225  
CWL-2-325/400  
CWL-300/400 Excellent  
CWL-F/T 300 Excellent  
CWL-F-150 Excellent

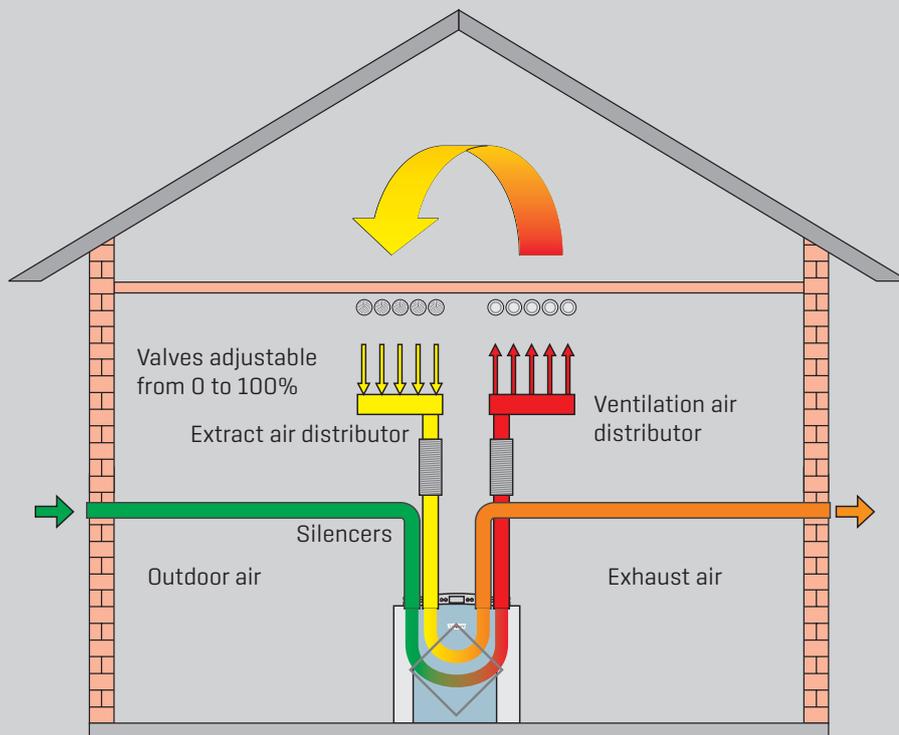
### CWL-T EXCELLENT



#### HYDRAULIC REHEATING COIL 3000 W

Including flow valve with thermostatic head and remote sensor for installation in the supply air insulated duct in addition to automatic vent and corrugated stainless steel pipes

**Mechanical ventilation**  
**CWL-2 / CWL Excellent**  
**Mode of operation**



**AIR ROUTING**

From the distributor to the valves with UniAir air distribution system - round DN63, DN75, DN90.



**AIR ROUTING**

From the distributor to the valves with UniAir air distribution system - flat 50x100 or 50x140.



**AIR ROUTING**

For outdoor air and extract air to the supply air and extract air distributor with UniAir ISO duct system DN125, DN160, DN180, DN200.

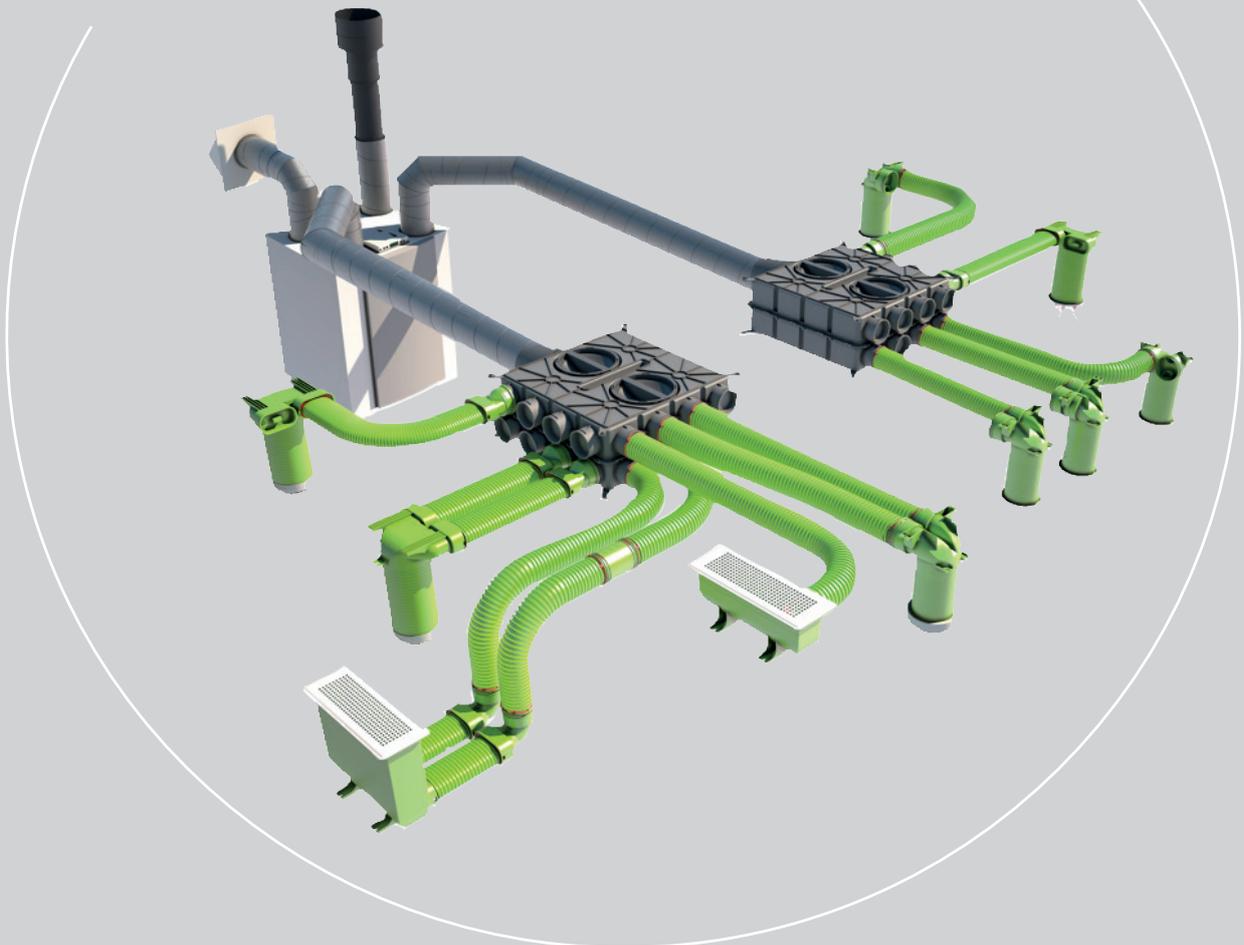


## TECHNICAL PROPERTIES OF UNIAIR ISO DUCT SYSTEM

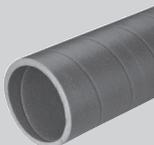
- Material density 50 kg/m<sup>3</sup>, anti-static
- Heat transfer coefficient 0.041 W/(m<sup>2</sup>K)
- Temperature range -40 °C to +60 °C
- Fire safety class B1 to DIN 4102-1 tested by the MPA Dortmund Institut
- Insulated roof outlet
- A special knife is offered for installation purposes
- Complies with DIN 1946-6

UniAir ISO duct system CWL replaces the traditional folded spiral-seam tube with insulation by a ready insulated round pipeline DN 125, DN 160 and DN 180 made from vapour-proof EPE foam with reduced system costs. Perfectly matching pipe elements combined with insulated roof outlets for superior system benefits:

- Quick installation (savings in labour costs up to 70% compared with folded spiral-seam tube)
- Easy cleaning thanks to optimally smooth internal surface without edge
- Connection of profiles by means of twist-proof locking ring
- Good sound insulation thanks to the relatively soft material
- Visually perfect and flawless function even after many years in use
- Long-lasting insulation (prevents the formation of condensate)
- Consistent leak-tightness of the pipework
- Wall thickness: 16 mm = DN 125, DN 160, DN 180, DN 200



**Mechanical ventilation**  
**CWL-2 / CWL Excellent**  
**UniAir ISO duct system**



**UNIAIR ISO DUCT CWL**

Length 2000 mm  
DN 125  
DN 160  
DN 180  
DN 200



**UNIAIR ISO DUCT CWL BENDS 90° AND 45°**

DN 125  
DN 160  
DN 180  
DN 200



**UNIAIR ISO TUBE CWL T-PIECE**

DN 125  
DN 160



**UNIAIR ISO DUCT CWL Y-PIECE 45°**

DN 180



**UNIAIR ISO DUCT CWL REDUCER**

DN 160/125  
DN 180/125  
DN 180/160  
DN 200/180



**LOCKING RING FOR UNIAIR ISO DUCT**

For joining pipes and profiles with anti-twist protection.

DN 125  
DN 160  
DN 180  
DN 200



**FIXING BRACKET FOR UNIAIR ISO DUCT**

DN 125  
DN 160  
DN 180  
DN 200



**SPECIAL KNIFE**

For cutting UniAir ISO ducts to length.  
The special teeth facilitate a quick and clean cut.



**REDUCER**

For use with UniAir pure.  
DN 250 - DN 125  
DN 250 - DN 160  
DN 250 - DN 180



**EXTERNAL AIR TOWER WITH LOUVRE HOOD (SET)**

DN 160



**EXTERNAL AIR TOWER WITH 90° BEND (SET)**

DN 160



**REPLACEMENT FILTER FOR OUTDOOR AIR TOWER**

DN 160



**WALL SPACER FOR OUTDOOR AIR TOWER**

DN 160



**CWL ROOF OUTLET WITH THERMAL INSULATION**

Length 1159 mm

Colour black or red DN 125 and DN 160

Colour black DN 180



**UBBIFLEX HIGH TACK – GLUE**

For fixing the CWL universal roof tile on tiles or roof

**Mechanical ventilation**  
**CWL-2 / CWL Excellent**  
**UniAir ISO duct system**



**SEALING COLLAR**

For CWL roof outlet



**CWL UNIVERSAL ROOF TILE 25° TO 45°**

Colour black or red DN 125 - DN 180



**CWL FLAT ROOF OUTLET 0°**

DN 125 - DN 180



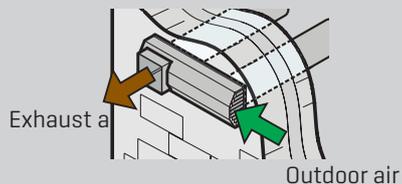
**CWL WALL MOUNTED HOOD WITH GRILLE**

Colour black or white

DN 125

DN 160

DN 180



**DOUBLE GRILLE**

For outdoor air and extract air

Colour white or stainless steel

DN 125 for CWL-F-150 Excellent and CWL-180 Excellent

DN 160 for CWL-F-300 Excellent and CWL-300 Excellent



**UNIAIR-DESIGN DOUBLE GRILLE**

For outdoor and extract air

DN 125 stainless steel

DN 160 stainless steel

DN 180 stainless steel

DN 125 anthracite grey RAL 7016

DN 160 anthracite grey RAL 7016

DN 180 anthracite grey RAL 7016

DN 125 white RAL 9010

DN 160 white RAL 9010

DN 180 white RAL 9010



**SILENCER**

For supply air or extract air  
Length 500 mm or 1000 mm

DN 125, 50 mm thermal insulation  
DN 160, 50 mm thermal insulation  
DN 180, 50 mm thermal insulation  
DN 200, 50 mm thermal insulation



**SILENCER, FLEXIBLE**

For supply air or extract air  
Length 1000 mm

DN 125, 50 mm thermal insulation  
DN 160, 50 mm thermal insulation  
DN 180, 50 mm thermal insulation



**UNI-AIR SILENCER**

For direct mounting on the ventilation unit

DN 160, DN 180, length 650 mm  
Available for CWL-2-325/400

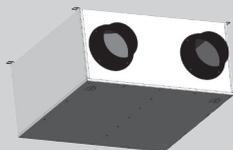


**SILENCERS**

Metal, for supply air and extract air  
Length 482 mm

DN 125

Available for CWL-F-150 Excellent



**SILENCERS**

Metal, for supply air and extract air  
Length 600 mm

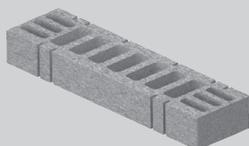
DN 160

Available for CWL-F-300 Excellent



**SILENCER AND FLOW RATE CONTROLLER**

For DN 125 connector



**SILENCER AND FLOW RATE CONTROLLER**

For floor grille connector

## Mechanical ventilation CWL-2 / CWL EXCELLENT GENERAL INFORMATION / UNIAIR DUCT SYSTEMS

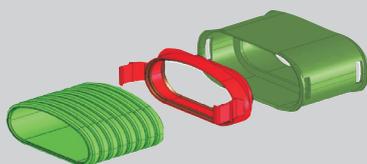
### UNIAIR AIR DISTRIBUTION SYSTEM - ROUND



Pipe systems specially designed for ventilation equipment, for flexible routing across ceilings, in false ceilings, in screeded floors and in walls.

Twin layer construction (smooth interior, corrugated exterior) ensures: Good acoustic insulation thanks to low flow resistance; high rigidity but still extremely flexible, low weight. The UniAir flat duct system is also (optionally) odourless and antimicrobial thanks to an environment-friendly material (PE) and hygienically safe new material. Minimal dust deposits thanks to (optional) antistatic equipment also characterize both the UniAir air distribution system round and the UniAir air distribution system - flat. Hygienic surface thanks to an easy-to-clean special internal skin. Tested without measurable contaminant concentration in the air. Shorter installation times thanks to easy working without special tools; no waste thanks to endless routing via click joints; direct routing on unfinished concrete, screed or in false ceilings; watertight and airtight to EN 1610 thanks to the use of seal rings at joints. With the UniAir air distribution system - round, three diameters are available (DN63, DN75, DN90), the UniAir air distribution system - flat is available in the sizes 50 x 100 mm and 50 x 140 mm.

### UNIAIR AIR DISTRIBUTION SYSTEM - FLAT



### RATING

Optimum operation can be achieved when the flow rate inside the UniAir air distribution system is limited to approx. 3.0 m/s (low resistance).

The air volumes can be preset when the maximum duct length (15 m in a detached house) and the pressure drop data are known. This reduces the adjustment time considerably.

The flow rate is as follows, relative to the recommendation of approx. 3.0 m/s:

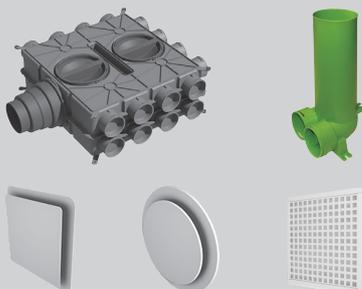
**UniAir air distribution system - round Max. air volume per round duct:**

DN63 up to 23m<sup>3</sup>/h  
DN75 up to 35m<sup>3</sup>/h  
DN90 up to 50m<sup>3</sup>/h

**UniAir air distribution system - flat Max. air volumes per flat duct:**

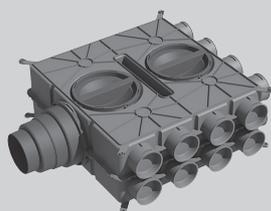
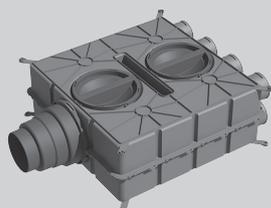
50 x 100 mm up to 30 m<sup>3</sup>/h  
50 x 140 mm up to 55 m<sup>3</sup>/h

### ROUTING INFORMATION



Various air distributors are available for supply and extract air distribution in the building depending on the application. Supply and extract air vents are integrated into the hose system via the connectors.

The supply and extract air lines, air distributors and connectors for the supply and extract air vents are mainly routed and installed on the unfinished floor. These components may also be routed and installed in intermediate ceilings. The supply and extract air vents can be installed in the ceiling, floor and in the wall area.



#### **UNIAIR AIR DISTRIBUTOR**

**DN 125 - 180 BASIC (GALVANISED)**

**DN 125 - 180 PREMIUM, SILENT-WHITE (TRAFFIC WHITE RAL 9016) WITH SOUND INSULATION**

For supply or extract air  
10 nozzles DN 75 with 5 sealing caps.

The panel can be mounted either at the top or at the front.

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140.

A further 8 connections (4 connections per side) can be used as an option

#### **Note:**

UniAir connection pieces are required if the 8 other connections are used. In addition, the UniAir air distributor can be extended with an additional 10 connections, a UniAir air distributor adapter plate is required for this!

#### **UNIAIR CONNECTORS**

DN 75, 4 pce

Antistatic and with antimicrobial effect.

#### **UNIAIR AIR DISTRIBUTOR ADAPTER PLATE**

For extension of the UniAir air distributor.  
Galvanised or traffic white RAL 9016

#### **AIR DISTRIBUTOR DN 125-180**

Plastic, for feed or extract air  
Antistatic and with antimicrobial effect

8 connectors DN 75 with 4 pipe caps

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140. For 50x140, max. 6 connections possible.

**Note:** Click and seal ring DN 75 required!

#### **AIR DISTRIBUTOR DN125-180**

Plastic, for supply or extract air  
Antistatic and with antimicrobial effect

16 connectors DN 75 with 8 pipe caps

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140. For 50x140, max. 12 connections possible.

**Note:** Click and seal ring DN 75 required!



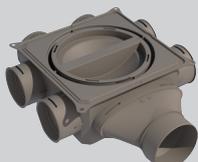
#### **AIR DISTRIBUTOR DN125-180**

Plastic, for supply or extract air  
Antistatic and with antimicrobial effect

24 connectors DN 75 with 12 pipe caps

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140. For 50x140, max. 18 connections possible.

**Note:** Click and seal ring DN 75 required!



#### **MINI AIR DISTRIBUTOR 6-75**

Plastic, for supply or extract air  
Antistatic and with antimicrobial effect.

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140.

**Note:** Click and seal ring DN 75 required!



#### **MINI AIR DISTRIBUTOR 8-75**

Plastic, for supply or extract air  
Antistatic and with antimicrobial effect.

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140.

**Note:** Click and seal ring DN 75 required!



#### **MINI AIR DISTRIBUTOR 12-75**

Plastic, for supply or extract air  
Antistatic and with antimicrobial effect.

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140.

**Note:** Click and seal ring DN 75 required!

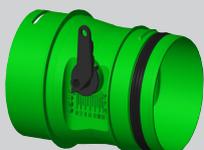


#### **MINI AIR DISTRIBUTOR 16-75**

Plastic, for supply or extract air  
Antistatic and with antimicrobial effect.

An adapter is required for the connection to the air distributor for the UniAir air distribution systems - flat and round DN 63, DN 90, 50 x 100 and 50 x 140.

**Note:** Click and seal ring DN 75 required!



#### **VOLUMETRIC FLOW CONTROLLER V-EASY**

For adjusting the volume flows on the air distributor DN125 - 180,  
Mini air distributor and UniAir air distributor



**RESTRICTOR DN 75**

For DN125-180 air distributor, Mini air distributor and UniAir air distributor Plastic, antistatic and with antimicrobial effect  
10 pieces



**ADAPTER DN63, DN90**

For DN125-180 air distributor, Mini air distributor and UniAir air distributor Plastic, antistatic and with antimicrobial effect

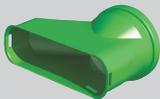
**Note:** Click and seal ring DN 63 required!



**ADAPTER FOR FLAT DUCT 50X100**

For connection to air distributor DN125-180, Mini air distributor and UniAir air distributor Plastic, antistatic and with antimicrobial effect

**Note:** Seal ring 50x100 required!



**ADAPTER FOR FLAT DUCT 50X140**

For connection to air distributor DN125-180, Mini air distributor and UniAir air distributor Plastic, antistatic and with antimicrobial effect

**Note:** Seal ring 50x140 required!

**Mechanical ventilation**  
**CWL-2 / CWL Excellent**  
**UniAir air distribution system - round**



**UNIAIR AIR DISTRIBUTION HOSE**

With a smooth inner skin,  
antistatic and with antimicrobial effect

DN 63, 50 m roll  
DN 75, 50 m roll  
DN 90, 50 m roll

With smooth internal surface

DN 63, 50 m roll  
DN 75, 50 m roll



**CLICK CONNECTOR FOR UNIAIR AIR DISTRIBUTION HOSE**

Antistatic and with antimicrobial effect

DN 63  
DN 75  
DN 90

Note: Click and seal ring required.



**BEND 90°**

DN 63  
DN 75  
DN 90

Antistatic and with antimicrobial effect

Note: Click and seal ring required.



**PIPE CUTTER FOR UNIAIR AIR DISTRIBUTION SYSTEM - ROUND**

DN 75



**COLLAR RINGS**

For MULTI air distributors

DN 125, 2 pce  
DN 160, 2 pce

Antistatic and with antimicrobial effect



**MULTI AIR DISTRIBUTORS**

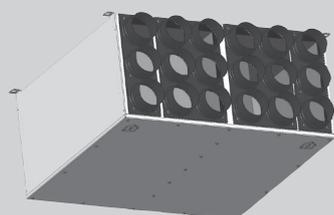
Metal, for supply air and extract air, incl. silencer

Sound attenuating material, closed cell as per DIN 1946-6

Length 482 mm

DN 125: 2x10 connectors each DN 75 or DN 63, each with 5 pipe caps

Available for CWL-F-150 Excellent



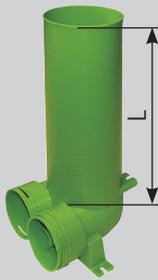
**MULTI AIR DISTRIBUTORS**

Metal, for supply air and extract air,

Sound attenuating material, closed cell as per DIN 1946-6

DN 160: 2x9 connectors each DN 75 or 63, each with 5 pipe caps

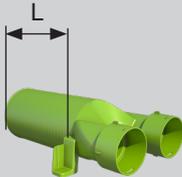
Available for CWL-F-300 Excellent



#### **CONNECTOR FOR VALVE DN 125**

A pipe cap and two pipe connectors incl. cover connector for vent DN125,  
antistatic and antibacterial  
DN 63, L = 325 mm  
DN 75, L = 325 mm  
DN 90, L = 325 mm

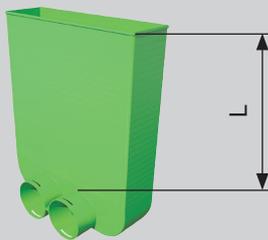
**Note:** Click and seal ring required!



#### **CONNECTOR FOR VALVE DN 125**

A pipe cap and two pipe connectors incl. cover connector for vent DN125,  
antistatic and antibacterial  
DN 75, L = 325 mm

**Note:** Click and seal ring required!



#### **FLOOR GRILLE CONNECTOR**

One pipe cap and two pipe connectors are antistatic and with  
antimicrobial effect  
DN 75, L = 300 mm

**Note:** Click and seal ring required. Use DN 63 for DN 63 adaptor!



#### **CLICK RING**

Antistatic and with antimicrobial effect

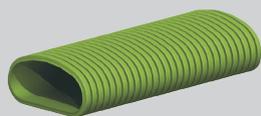
DN 63, [bag of 10]  
DN 75, [bag of 10]  
DN 90, [bag of 10]



#### **SEAL RING**

DN 63, bag of 10  
DN 75, bag of 10  
DN 90, bag of 10

**Mechanical ventilation**  
**CWL-2 / CWL Excellent**  
**UniAir air distribution system - flat**



**FLAT DUCT**

With a smooth inner skin,  
antistatic and with antimicrobial effect

50x100, 50 m roll  
50x140, 20 m roll

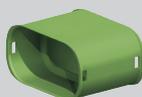


**CWL 90° BEND FOR FLAT DUCT**

Antistatic and with antimicrobial effect

50x100, vertical  
50x100, horizontal  
  
50x140, vertical  
50x140, horizontal

**Note:** Seal ring required!



**CLICK CONNECTOR FOR FLAT DUCT**

Antistatic and with antimicrobial effect

50x100  
50x140

**Note:** Seal ring required!



**SEAL RING FOR FLAT DUCT**

Antistatic and with antimicrobial effect

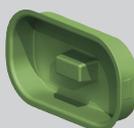
50x100, bag of 10



**SEAL RING FOR FLAT DUCT**

Antistatic and with antimicrobial effect

50x140, bag of 10



**PIPE CAP FOR PROFILE**

Antistatic and with antimicrobial effect

50x100, bag of 10  
50x140, bag of 10

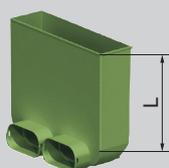


**CONNECTOR FOR VALVE DN 125**

One or two duct connectors and one pipe cap, antistatic and with antibacterial effect, incl. cover connector for valve DN 125

Length L = 240 mm                      50x100 - 90°  
Length L = 330 mm                      50x140 - 90°

**Note:** Seal ring 50x100 or 50x140 required!

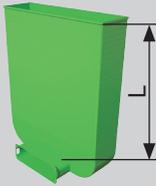


**FLOOR GRILLE CONNECTOR**

One or two duct connectors and one pipe cap, antistatic and with antibacterial effect, incl. cover

Length L = 220 mm                      50x100 (two duct connectors)

**Note:** Seal ring 50x100 required!



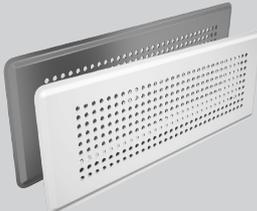
#### FLOOR GRILLE CONNECTOR

One duct connector and one pipe cap, antistatic and antibacterial, incl. cover

Length L = 240 mm

50x140 (one duct connector)

**Note:** Seal ring 50x140 required!



#### FLOOR GRILLE, METAL

White or stainless steel



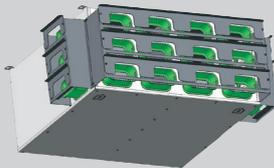
#### AIR DISTRIBUTOR

Metal, for supply and extract air

incl. silencer for direct installation on the CWL-F-150 Excellent.

Sound attenuating material, closed cell as per DIN 1946-6

DN 125: 2x6 connectors each, 50x100 with 3 pipe caps



#### AIR DISTRIBUTOR

Metal, for supply air and extract air

incl. silencer for direct installation onto the CWL-F-300-Excellent.

Sound attenuating material, closed cell as per DIN 1946-6

DN 160: 2x9 connectors each, 50x100 with 5 pipe caps



#### RESTRICTOR FOR FLAT DUCT

Antistatic and with antimicrobial effect

50x100, bag of 10

Available for CWL-F-150 Excellent

**Mechanical ventilation**  
**CWL-2 / CWL Excellent**  
**flexible UniAir air distribution system - round**



**90° ADAPTOR FROM DN 75 ROUND TO FLAT DUCT 50X100**

Antistatic and with antimicrobial effect

**Note:** Click and seal ring required.



**ANGLE ADAPTOR 2X ROUND DN 75 TO 1X FLAT DUCT 50X140**

Antistatic and with antimicrobial effect

**Note:** Click and seal ring required.



**UNIVERSAL CLIP FOR FLAT DUCT 50X100, 50X140 AND ROUND TUBE Ø 63  
MM AND Ø 75 MM**

10 pce

**Mechanical ventilation  
CWL-2 / CWL EXCELLENT  
SUPPLY/EXTRACT AIR VENTS**



**UNIAIR 125R**

Round design valve for supply and extract air



**UNIAIR 125Q**

Design valve square for supply and extract air

**FILTER BAG**

5 pce

Available for CWL extract air vents



**KITCHEN EXTRACT AIR VENT WITH FILTER ISO COARSE 45% (G3)**

## Mechanical ventilation

### FWL PushPull 45 (RC)

#### Decentralised ventilation unit with heat recovery, single unit

- Decentralised single-room ventilation unit for balanced supply and extract air operation
- FWL-PushPull 45 - wired version, inner cover with electric flap with manual flap latch
- FWL-PushPull 45 RC - wireless version, inner cover with electric flap
- Use only for supply air rooms with an outer wall
- with heat recovery consisting of two fans, two ceramic heat exchangers, inner cover and two filters
- required accessories: Shell sleeve, outer cover or soffit element and controller FWL-PushPull RLS or RLS-K or for wireless version FWL PushPull RC
- optional accessories: Wall block, sensors and power unit (with more than 6 fans)
- operation in pairs recommended, at least two devices required for FWL PushPull 45 RC
- The FWL-RLS and RLS-K controllers can be supplemented with an internal humidity sensor
- Other external sensors CO2, VOC, relative humidity
- FWL PushPull 45 and FWL PushPull 30 can be combined using the FWL PushPull RLS-K controller (max. 6 fans)
- Operating programs: Continuous ventilation with heat recovery, cross ventilation or sensor-guided automatic operation. Additional functions possible via accessories
- Wireless and wired versions can be connected using the FWL PushPull RLS 45 K controller and the EnOcean extension module
- The RC versions can be combined with any number of devices
- The FWL-ABLV extract air fan as per DIN 18017-3 is available for internal extract air rooms without an outer wall



TYPE FWL		45	45RC
Energy efficiency class	A+ → F	A+	A+
Max. air flow rate	m <sup>3</sup> /h	42	42
Electr. Power consumption	W	3.5	3.5
IP rating	IP	00	00
Filter (outside/inside)		ISO COARSE 55% (G3) / ISO COARSE 30% (G2)	
Required wall breakthrough	mm	162 to 182mm	162 to 182mm
Heat recovery level (DIN EN 13141-8)	%	84.3	84.3
SPI (DIN EN 13141-8)	Wh/m <sup>3</sup>	0.11	0.12
Voltage	V	12	230
Dimensions			
Duct connection diameter	DN	160	160
Wall thickness max.	mm	490	490
Height	mm	246	246
Width	mm	246	246
Depth	mm	282	282
Weight	kg	3.1	3.2

Decentralised single-room ventilation unit for balanced supply and extract air operation

- FWL-PushPull 30 - wired version, inner cover with electric flap
- FWL-PushPull 30 RC - wireless version, inner cover with electric flap
- Only use in extract air spaces with an outer wall
- with heat recovery consisting of two fans, two ceramic heat exchangers, inner cover and two filters
- required accessories: Shell sleeve, outer cover and controller RLS-K or for wireless version FWL PushPull RC
- optional accessories: Wall block, sensors and power unit (with more than 6 fans)
- The FWL-RLS and RLS-K controllers can be supplemented with an internal humidity sensor
- Other external sensors CO<sub>2</sub>, VOC, relative humidity
- Operating programs: Continuous ventilation with heat recovery, cross ventilation or sensor-guided automatic operation. Additional functions possible via accessories
- FWL PushPull 45 and FWL PushPull 30 can be combined using the FWL PushPull RLS-K controller (max. 6 fans)
- Example of combination options:

2x FWL PushPull 45 + 2x FWL PushPull 30 + 1x controller FWL PushPull 45 RLS K

4x FWL PushPull 45 + 1x FWL PushPull 30 + 1x controller FWL PushPull 45 RLS K

- Wireless and wired versions can be connected using the FWL PushPull RLS 45 K controller and the EnOcean extension module
- The RC versions can be combined with any number of devices
- The FWL-ABLV extract air fan as per DIN 18017-3 is available for internal extract air rooms without an outer wall



TYPE FWL		30	30 RC
Energy efficiency class	A+ → F	<b>A</b>	<b>A</b>
Max. air flow rate	m <sup>3</sup> /h	26	26
Electr. Power consumption	W	5.3	5.3
IP rating	IP	X4	X4
Filter (outside/inside)		ISO COARSE 55% (G3) / ISO COARSE 55% (G3)	
Required wall breakthrough	mm	162 to 182mm	162 to 182mm
Heat recovery level (DIN EN 13141-8)	%	73.3	73.3
SPI (DIN EN 13141-8)	Wh/m <sup>3</sup>	0.19	0.18
Voltage	V	12	230
<b>Dimensions</b>			
Duct connection diameter	DN	160	160
Wall thickness max.	mm	490	490
Height	mm	275	275
Width	mm	275	275
Depth	mm	410	410
Weight	kg	4.7	4.5

**Mechanical ventilation**  
**FWL PushPull**  
**Accessories**



**FWL-PUSHPULL-45 AK**

Outside cover, plastic



**FWL-PUSHPULL-45 AE**

Outside cover, stainless steel



**FWL-PUSHPULL-45 AS**

Outside cover, aluminium, black (anthracite)



**FWL-PUSHPULL-45 AW**

Outside cover, aluminium, white



**FWL-PUSHPULL-30 AK**

Outside cover, plastic



**FWL-PUSHPULL-30 AS**

Outside cover, aluminium, black (anthracite)



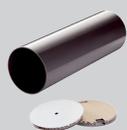
**FWL-PUSHPULL-30 AW**

Outside cover, aluminium, white



**FWL-PUSHPULL-30 AE**

Outside cover, stainless steel



**FWL-PUSHPULL RBH**

Wall sleeve [500mm]



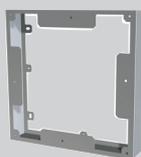
**FWL-PUSHPULL MB**

Wall block



**FWL-PUSHPULL SDE**

Noise insulation element



**FWL-PUSHPULL- ARE**

Compensation frame [stainless steel] for outer cover FWL-PushPull-30 and 45.

For the outdoor covers (except FWL-PushPull-30 AK), we also need the ARE-BB or ARW-BB mounting plate.

The compensation frame is required if the minimum wall thickness is not reached.



**FWL-PUSHPULL- ARW**

Compensation frame (white) for outer cover FWL-PushPull-30 and 45.

For the outdoor covers (except FWL-PushPull-30 AK), we also need the ARE-BB or ARW-BB mounting plate.

The compensation frame is required if the minimum wall thickness is not reached.



**FWL-PUSHPULL- ARE BB**

Mounting plate for compensation frame (stainless steel)



**FWL-PUSHPULL- ARW BB**

Mounting plate for compensation frame (white)



**FWL-PUSHPULL-30 FG3**

2 pce

Replacement filter G3



**FWL-PUSHPULL-45 FG3**

2 pce

Replacement filter G3 (outside)



**FWL-PUSHPULL-45 AS**

2 pce

Replacement filter G2 (inside)

**Mechanical ventilation**  
**FWL PushPull**  
**Extract air fan**



**FWL-ABLV**

Extract air fan for window-less bathrooms as per DIN18017-3



**FWL-ABLV AG**

Surface-mounted casing without fire protection



**FWL-ABLV UG**

Flush-mounted casing



**FWL-ABLV IB**

Internal panel



**FWL-ABLV IB RH**

Internal panel with humidity sensor



**FWL-ABLV F**

Replacement filter G2 [with filter indicator]



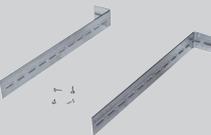
**FWL-ABLV F - G2**

Replacement filter G2 [filter indicator in the cover]



**FWL-ABLV MSUG**

Installation set for flush-mounted casing



**FWL-ABLV UPM**

Flush mount mounting bracket for flush mount housing ABLV UG



**FWL-ABLV AS**

Suction connector for ABLV UG flush-mounted housing



**FWL-ABLV ZR**

Second room connection for FWL-ABLV UG



**FWL-ABLV ZR G2**

5 pce

Replacement filter G2 for FWL - ABLV ZR



**FWL-PUSHPULL-45 DFK 45 DFK 46-55°**

Roof hood [roof incline 46 - 55°]



**FWL-PUSHPULL-45 DH 36-45°**

Roof hood [roof incline 36 - 45°]



**FWL-PUSHPULL-45 DH 31 - 35°**

Roof hood [roof incline 31 - 35°]



**FWL-PUSHPULL-45 DH 25 - 30°**

Roof hood [roof incline 25 - 30°]



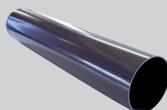
**FWL-PUSHPULL-45 DER 26 - 55°**

Roof flashing frame [roof incline 26 - 55°]



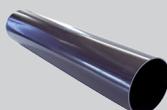
**FWL-PUSHPULL-45 DER 25 - 35°**

Roof flashing frame [roof incline 25 - 35°]



**FWL-PUSHPULL-45 DFHL**

Roof opening duct, long [2240 mm]



**FWL-PUSHPULL-45 DFHK**

Roof opening duct, short [1180 mm]



**FWL-PUSHPULL-45 DFK**

Roof opening duct

## Mechanical ventilation

### FWL PushPull

#### Soffit component



#### **FWL- PUSHPULL - 45 LEW**

PP 45 LEW soffit element angle



#### **FWL- PUSHPULL - 45 LE VERL**

PP 45 LEV soffit element extension



#### **FWL- PUSHPULL - 45 LE ES - AD**

PP 45 LE soffit element stainless steel outer cover



**FWL-PUSHPULL-RLS**

Room air control



**FWL-PUSHPULL-RLS - K**

Comfort room air control



**FWL-PUSHPULL-RLS - RC**

RC wireless switch



**FWL-PUSHPULL-RLS - LT**

Power unit [extension for more than 6 fans]



**FWL-PUSHPULL-RLS - LTRC**

RC extension module EnOcean



**FWL-PUSHPULL-CO2 SENSOR EXT.**

Outdoor CO2 sensor



**FWL-PUSHPULL VOC SENSOR EXT.**

Outdoor VOC sensor



**FWL-PUSHPULL RH SENSOR EXT.**

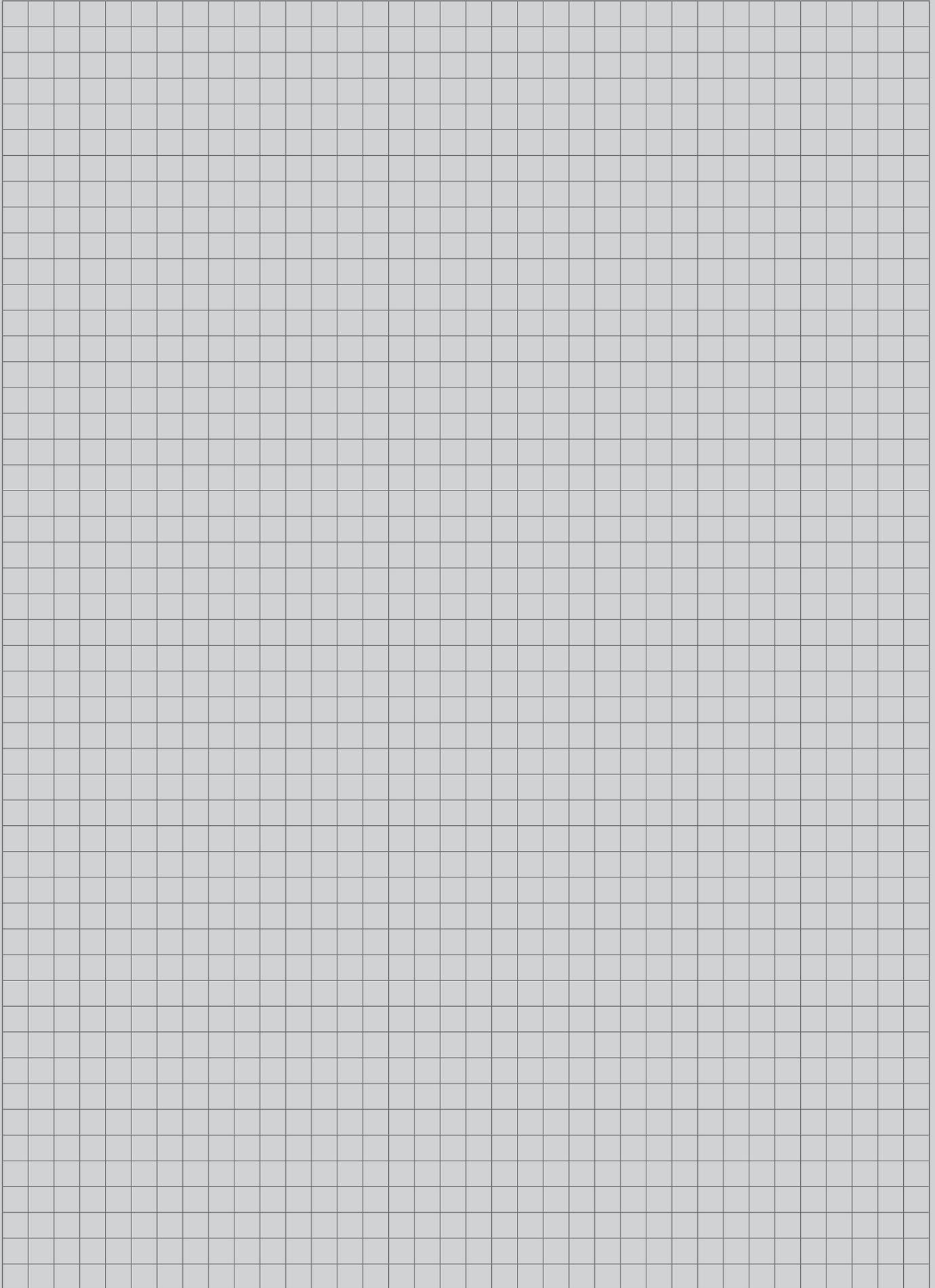
Outdoor humidity sensor

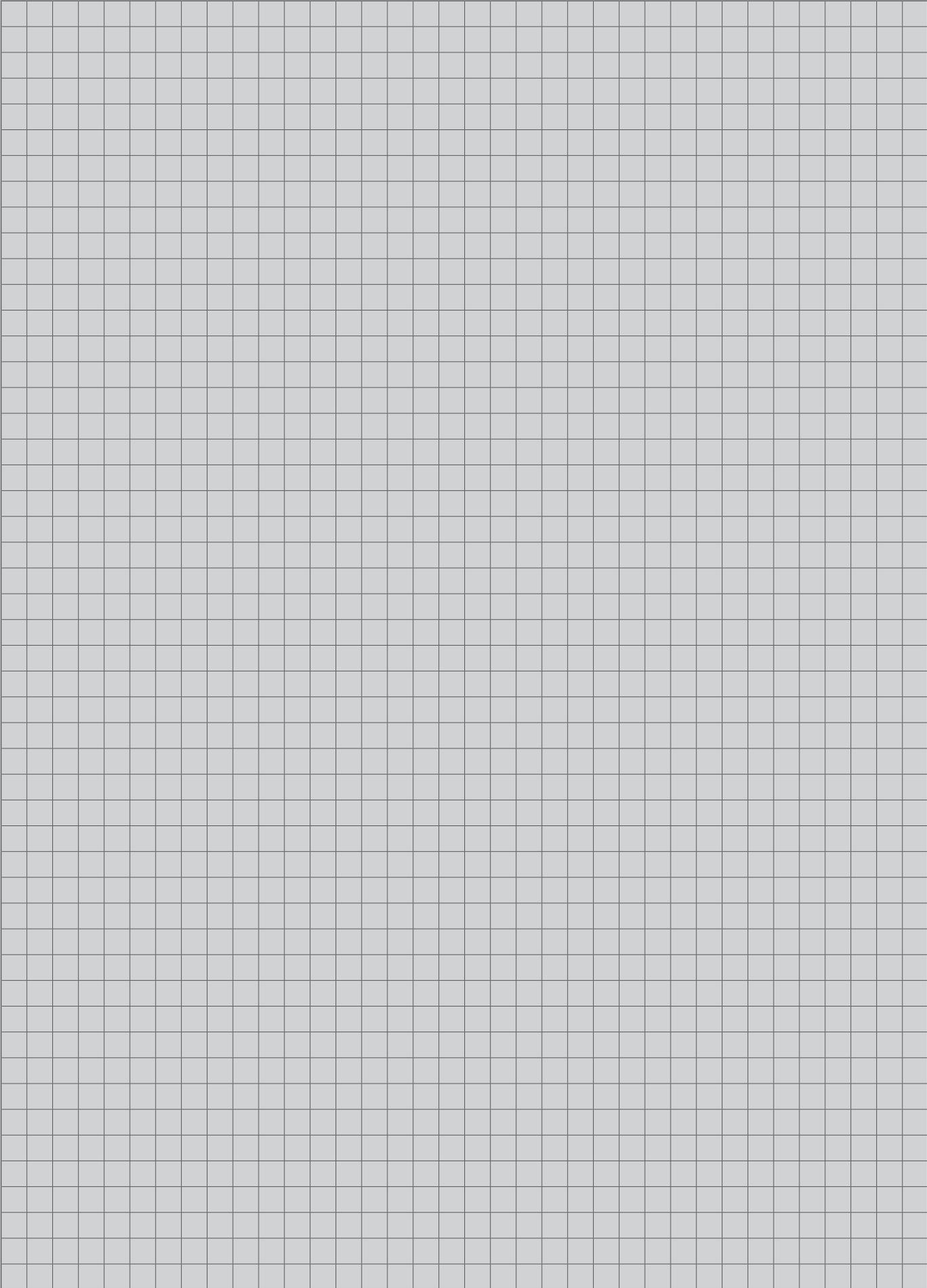


**FWL-PUSHPULL RH SENSOR INT.**

Internal humidity sensor

# NOTES





Dealer address

WOLF GMBH/POSTFACH 1380/D-84048 MAINBURG/TEL. +49.0.875174-0/FAX +49.0.875174-1600/www.WOLF.eu

