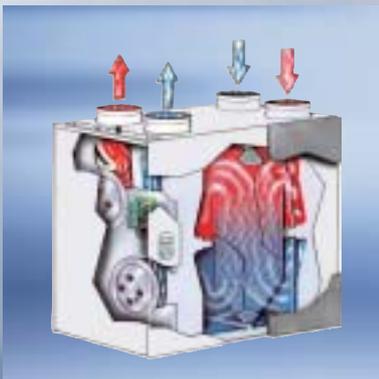




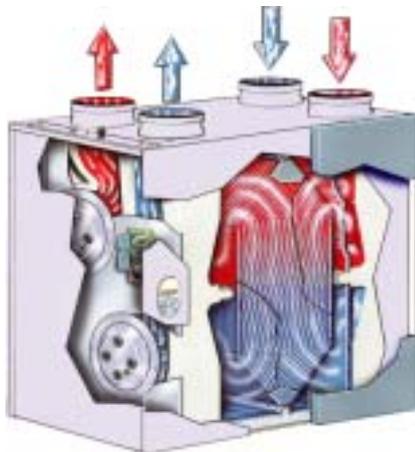
The competence brand for energy saving systems

Comfort domestic ventilation system CWL

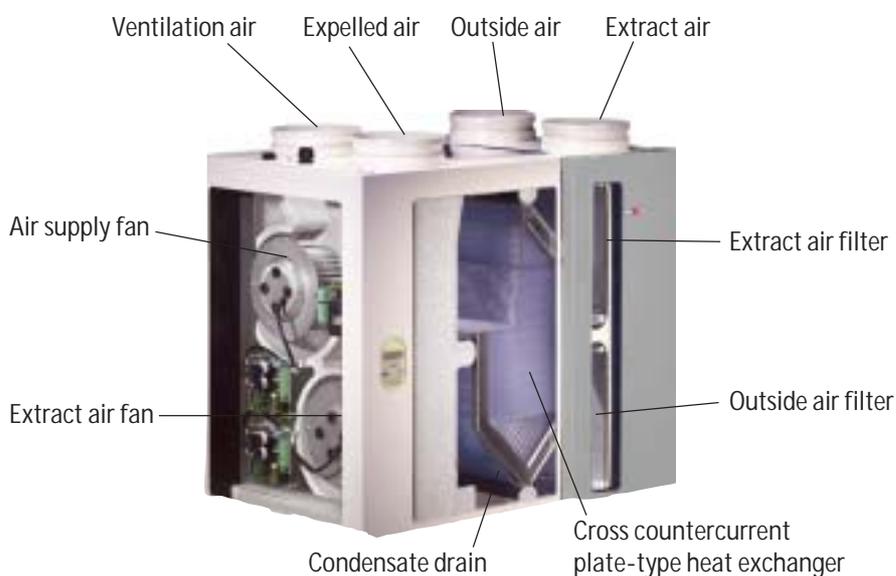


Comfort domestic ventilation system CWL

Function



Three sizes with air flow rates of 180m³/h, 300m³/h and 400m³/h. Suitable for detached houses and apartment buildings as well as offices. The CWL Comfort domestic ventilation system with heat recovery extracts stale air from the kitchen, bathroom and toilet areas. This air is routed across a cross countercurrent plate-type heat exchanger, and filtered air is expelled to the outside. At the same time, fresh outside air is drawn into the system, cleaned by an air filter, heated by the cross countercurrent heat exchanger and routed into the appropriate rooms, such as the living room, bedrooms and children's rooms.

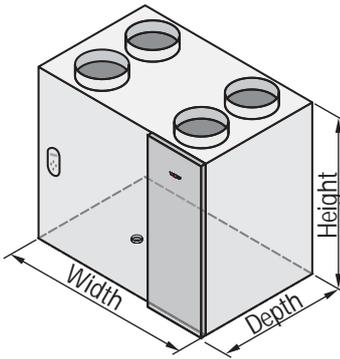


Benefits of the Wolf Comfort domestic ventilation system

- Clean, pollen-free fresh air - airing with your windows closed, excluding street noise (not only for those suffering from allergies).
- Removable cross countercurrent plate-type heat exchanger made from plastic; up to 95 % heat recovery from extracted stale air.
- Bypass for night time cooling for device types CWL-300 B and CWL-400 B.
- One fan each for ventilation and extract air, both variable speed; low energy consumption through DC fans.
- Constant flow fans keep the air flow rate constant at the selected fan speed. This achieves a consistently high efficiency; and adjustments are limited to a minimum.
- The automatic frost stat control offers optimum protection against frost damage.
- Fully wired; filter change requirement indicated at the switch.

Comfort domestic ventilation system CWL

Specification



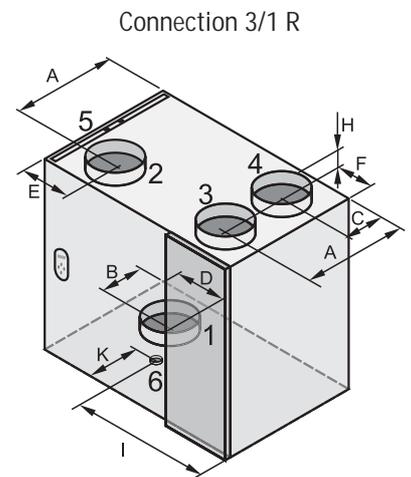
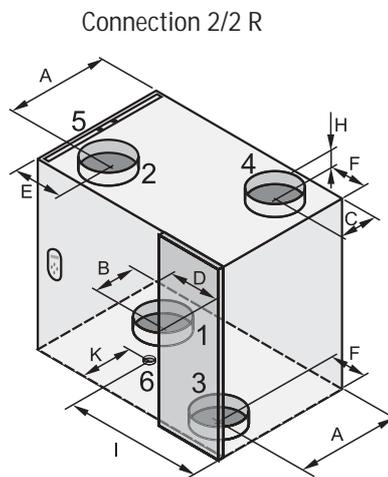
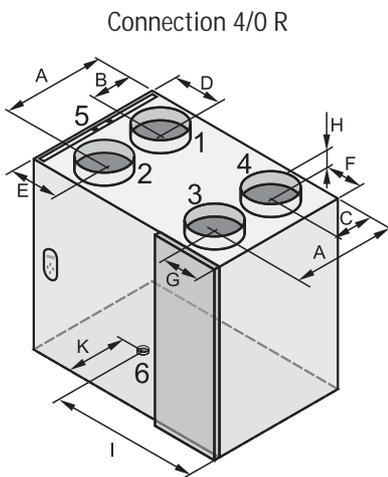
Domestic ventilation system		CWL-180	CWL-300(B)	CWL-400(B)
Fan capacity at 150 Pa	[m ³ /h]	max. 180	max. 300	max. 400
Power consumption	[W]	16 - 112	16 - 174	12 - 300
Power consumption at 150 Pa	[W]	112 at 180 m ³ /h	174 at 300 m ³ /h	300 at 400 m ³ /h
Connections on the air side	[mm]	Ø125	Ø150 / Ø160	Ø150/Ø160/Ø180
Height	[mm]	600	602	602
Width	[mm]	560	675	675
Depth (depth with bypass)	[mm]	315	445 (525)	455 (535)
Weight (weight with bypass)	[kg]	25	31 (35)	32 (36)
Heat recovery rate max.	[%]	95	95	95

Optional connections

To do justice to the varied installation situations, Wolf offers these devices with different connection options:

- for the CWL-180: all connections on top (type 4/0)
- for the CWL-300 and CWL-400 optionally:
 - all connections on top (type 4/0)
 - expelled air and outside air at the top, ventilation air and extract air at the bottom (type 2/2)
 - expelled air, extract air and outside air at the top, ventilation air at the bottom (type 3/1)

The inspection door for filter service is arranged either on the left or on the right. If the inspection door is arranged on the right, then the connections for ventilation air, expelled air, extract air and outside air are as shown in the diagrams. In case of the inspection door being arranged on the left, the connections are turned 180°.



- 1 Ventilation air (living room)
- 3 Extract air (living room)
- 5 Electrical connection
- 2 Expelled air (to the outside)
- 4 Outside air (from the outside)
- 6 Condensate connection

Dimensions

Type	A	B	C	D	E	F	G	H	I	K
CWL-180	213	77	77	79	168	75	125	45	248	145
CWL-300	321	121	99	165	165	89	89	45	385	210
CWL-400	336	126	114	165	165	89	89	53	385	210

Dimensions for CWL with inspection door on the right and without bypass

Control unit - accessory

Controller

User interface



Microprocessor control unit with display for adjusting and displaying the individual control functions:

- Set value adjustment of the ventilation and extract air flow rate
- Fans ON / OFF
- Programmable pressure compensation or pressure balancing - i.e. generally over or underpressure can be created deliberately via an adjustable value, if required, inside the accommodation.
- Filter alarm on the display (filter service)
- Frost protection
- Control of a pre-heater bank (1000 W). The pre-heater bank is designed to maintain a ventilation air temperature above 0 °C.
- Control of a bypass damper (if installed) for models CWL-300 and CWL-400. This enables the supply of fresh outside air into the accommodation for night time cooling. The bypass damper opens if the room temperature exceeds an adjustable value, and the outside air temperature is below that value.
- Displaying the selected values

Accessories

Auxiliary PCB



Additional PCB with switching inputs for:

- Smoke detector - this shuts down the fans in dangerous situations
- Humidity sensor - ensures a larger amount of air is extracted automatically in case of excessive relative humidity (e.g. in the bathroom) (extraction)
- Carbon dioxide sensor - ensures a larger amount of ventilation air is supplied automatically in case of excessive CO₂ content (e.g. in the living room) (ventilation)
- Control of a booster heater bank (1000 W) - the booster heater bank heats the ventilation air to an adjustable value

Three-stage switch



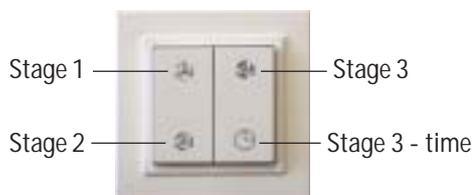
Three-stage switch with LED

This illuminates when the filters need cleaning.

- Position 1: Minimum ventilation, e.g. during absence (holiday)
- Position 2: Basic ventilation
Corresponds to standard operation when the occupants are away
- Position 3: Intensive ventilation, e.g. during a party, when there are visitors (high oxygen consumption)

Remote control

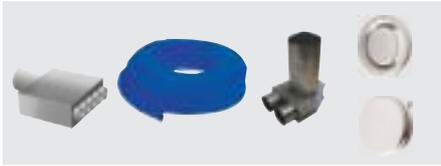
Wireless remote control with transmitter and receiver



- Press at the top left Fans turn at stage 1 (minimum ventilation)
- Press at the bottom left Fans turn at stage 2 (basic ventilation)
- Press at the top right Fans turn at stage 3 (intensive ventilation)
- Press briefly at bottom right Fans turn at stage 3 for 15 min.; then the fans revert to stage 1 (< 1 s)
- Press longer at bottom right Fans turn at stage 3 for 30 min.; then the fans revert to stage 1

Comfort domestic ventilation system CWL

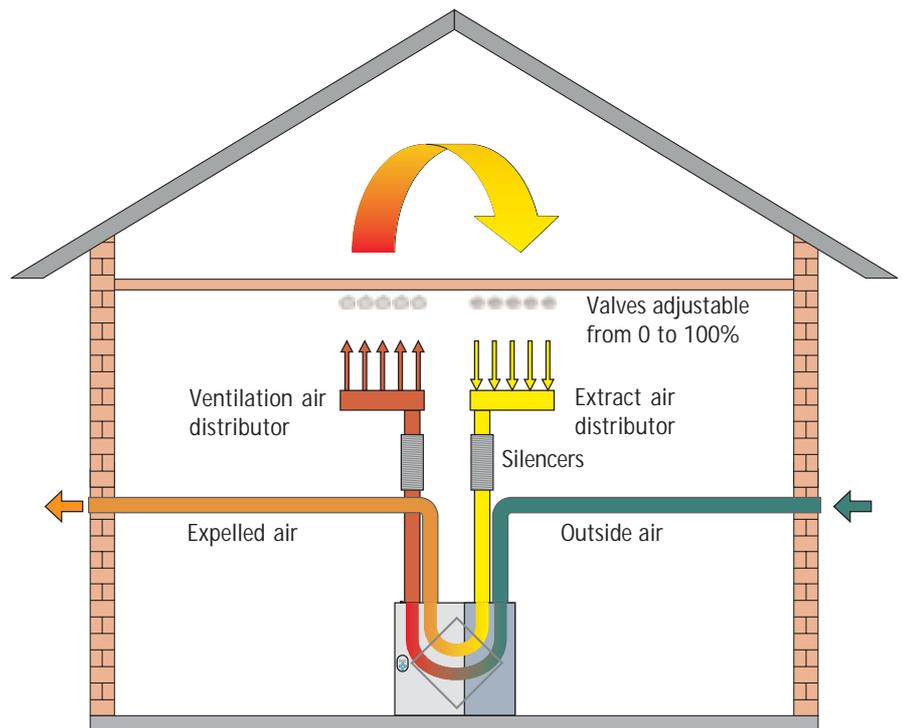
Function



Air from the distributors to the valves routed in a hose system 75/63 or 63/52



Air for outside and expelled air and to the ventilation air and extract air distributor routed in ISO pipes DN 125/150/180.



General technical properties ISO pipe CWL

- Material density 50 kg/m³, anti-static
- Heat transfer coefficient 0.040 W/(m²K) to DIN
- 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

Characteristics

ISO pipe CWL replaces the traditional folded spiral-seam tube with insulation with a readyinsulated round pipeline DN 125, DN 150 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)
- Consistent soundness of the pipework
- Consistent insulation (prevents the formation of condensate)
- Good sound insulation thanks to the relatively soft material
- Easy cleaning due to optimum smooth internal surface without edge
- Connection of profiles by means of smooth space-saving plug-in fem. connection
- Easy line inspection without dismantling through the plug-in fem. connection with tensioning toggle
- Visually and in function perfect, even after many years in use
- Wall thickness
 - 17 mm = DN 125 and DN 150
 - 20 mm = DN 180

Insulated pipework

Components



ISO pipe CWL 2250 mm long in DN 125, DN 150 and DN 180



ISO pipe CWL bend with 2 plug-in fem. connections
90° and 45° for DN 125, DN 150 and DN 180
30° and 15° for DN 150 and DN 180



ISO pipe CWL tee with 3 plug-in fem. connections in DN 125



ISO pipe CWL 45° Y-piece without plug-in fem. connections in DN 150 and DN 180



ISO pipe CWL reducer DN 150/125
ISO pipe CWL reducer DN 160/150
ISO pipe CWL reducer DN 180/125
ISO pipe CWL reducer DN 180/150



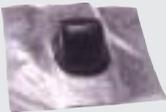
Plug-in fem. connection for joining pipes and profiles. Very flat structure for little space requirement; DN 125, DN 150 and DN 180



Plug-in fem. connection with tensioning toggle.
This piece of pipe can be readily removed when installing it in a pipe run. DN 150



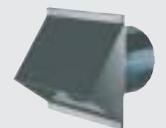
Insulated twin-walled roof outlet,
hail-proof; black
DN 125, DN 150 and DN 180



CWL universal lead tile; 25° to 45°



CWL universal tile with lead flashing; black; 25° to 45°



CWL wall outlet with protective grille; black or white
DN 125, DN 150 and DN 180



Special knife for trimming pipes to size. The special teeth facilitate a quick and clean cut.

Flexible hose system

Hose system properties



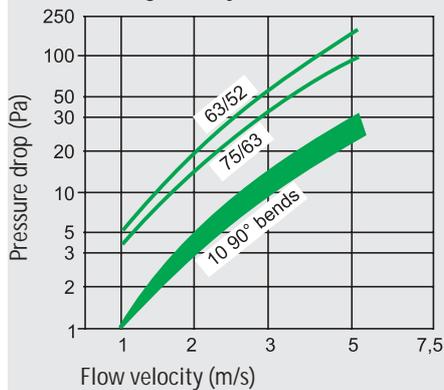
Pipe system specially designed for ventilation systems for flexible routing across or in false ceilings.

Twin layer construction (smooth interior, corrugated exterior) ensures:

Excellent sound insulation through low flow resistance; high annular stability yet high level of flexibility; low weight, neutral smell due to environmentally-friendly material (PE) and the use of hygienically ideal virgin materials. Minimum dust deposits through antistatic internal skin. Hygienically perfect to VDI 6022 due to easy to clean special internal skin. Tested without measurable contaminant concentration in the air. Shorter installation times through easy processing without special tools; no waste through endless routing via click joints; direct routing on unfinished concrete, screed or in false ceilings; watertight and airtight to DIN EN 1610 through the use of seal rings at joints. Two available diameters (A: 75/1:63 mm or A: 63/1:52 mm)

Curve and design

Standard values for the pressure drop in a 10 m long hose system



An optimum operation can be achieved when the flow rate inside the pipe is limited to approx. 3.0 m/s (low resistance).

The ventilation air and extract air valves can be preset when the maximum pipe length (15 m in a detached house) is known and the pressure drop details from the diagram are applied. This reduces the adjustment time considerably.

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

single hose DN 63/52 approx. $\pm 20 \text{ m}^3/\text{h}$

single hose DN 75/63 approx. $\pm 30 \text{ m}^3/\text{h}$

In case of a higher air demand, route 2 lines in parallel. This increases the volume of air to $\pm 40 \text{ m}^3/\text{h}$ or $\pm 60 \text{ m}^3/\text{h}$, respectively.

Routing information



Install one air distributor each for the ventilation air and the extract air distribution inside the building. These distributors are equipped with a rotary connector and can therefore be used as a 90° distributor, (straight-through distributor possible through conversion). Ventilation air and extract air valves are joined using connectors.

The ventilation air and extract air lines, air distributors and connectors for the ventilation air and extract air valves are predominantly routed and installed on/above the ceiling and under the screed. The ventilation air and extract air valves are installed below the ceiling. These components may also be routed and installed in false ceilings.



The competence brand for energy saving systems

The extensive equipment range of the system supplier Wolf offers the ideal solution for commercial and industrial buildings, in new build and modernisation projects alike. The control unit range from Wolf meets any demand for heating convenience. All equipment is easy to operate and works with high energy efficiency and reliability. Photovoltaic and solar heating systems can be quickly integrated into existing systems. All Wolf equipment is easily and quickly installed and maintained.

Wolf GmbH, Postfach 1380, D-84048 Mainburg, Tel.: +49 87 51 / 74-0, Fax: +49 87 51 / 74-1600, Internet: www.wolf-heiztechnik.de

➤ **Central heating system components**

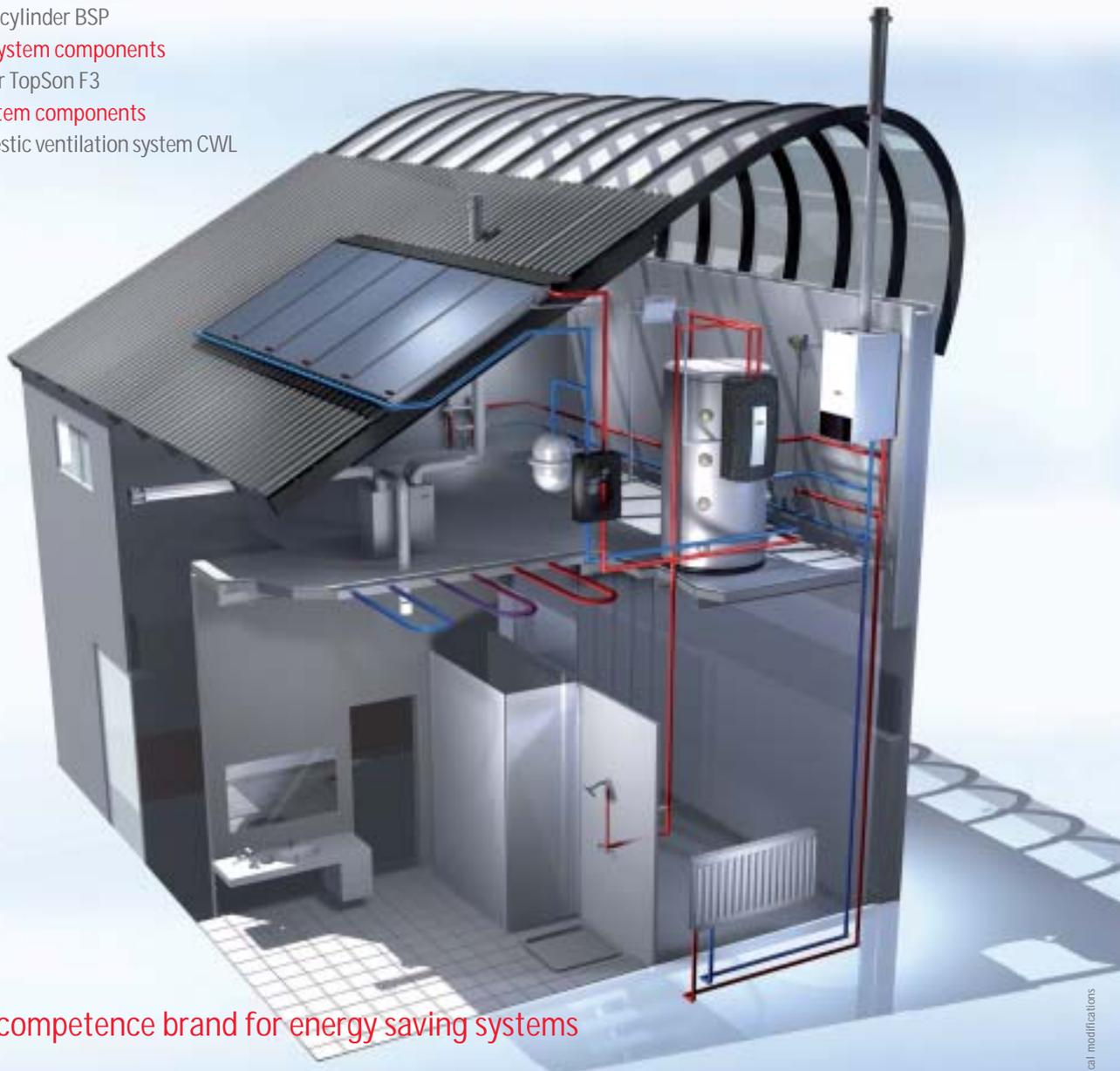
- ComfortLine wall mounted gas fired condensing boiler CGB-20
- Stratification cylinder BSP

➤ **Solar heating system components**

- Solar collector TopSon F3

➤ **Ventilation system components**

- Comfort domestic ventilation system CWL



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