

# Get in touch ...

**Innovations** 



## Designed to make you feel good

# Experience the latest in heating, air handling, ventilation and service

Presenting the latest Wolf **condensing boilers** – in close-up. New technologies now make them even more economical and powerful, and their new, intelligent design marks their advance. Online remote maintenance? Smartphone connection? Self-calibrating fuel adjustment? These are just some of the special features we have packed into this new series.

There are plenty of innovative developments to be found amongst our **air handling units**, too. For example, a new type of thermal separation of the casing has improved the operating efficiency of Wolf KG Top.eco air handling units, and the addition of a state of the art air handling control concept has made them even more user friendly.

That's not all – come and discover our extended range of **mechanical ventilation units**. We have two new model sizes, both with astonishingly high levels of heat recovery. Not forgetting the two new slimline ventilation units, too – they are even more compact, simple to install and easy to maintain than ever.

All of this and many interesting additions to the range of Wolf services await you.

Don't miss the connection - come to Wolf!



## Contents

# Discover the best of 2014



### **M** HEATING TECHNOLOGY

- 08 The new condensing generation
- 10 CGB-2 wall mounted gas condensing boiler
- 12 CGS-2L floorstanding gas condensing centre with stratification cylinder
- 14 CGW-2L wall mounted gas condensing centre with stratification cylinder
- 16 CSZ-2R gas condensing solar centre
- 18 TOB and TOB-TS oil condensing boiler with and without stratification cylinder
- 20 MGK-2 medium-sized gas condensing boiler
- 22 BM-2 programming module
- 24 ISM7i LAN/WLAN interface module
- 26 Wolf Smartset operating app
- 28 High efficiency BWW-1 water/water heat pump
- 30 BWL-1S(B) split air source heat pump
- 32 Heat pumps in cascades
- 34 GTK-4 gas micro CHP

# AIR HANDLING AND VENTILATION TECHNOLOGY

- 38 CWL-180 Excellent comfort mechanical ventilation system
- 38 CWL-300 Excellent comfort mechanical ventilation system
- 38 CWL-400 Excellent comfort mechanical ventilation system
- 40 CWL-F-150 Excellent comfort mechanical ventilation system
- 40 CWL-F-300 Excellent comfort mechanical ventilation system
- 42 Comfort compact ventilation units in new sizes, CRL with thermal wheel heat exchanger
- 44 KG Top.eco as T2/TB2 version
- 46 WRS-K touch panel for air handling control



### **HEATING TECHNOLOGY**

Can condensing technology be further improved? Can heating systems be better controlled? Can heat pumps be even more efficient? Yes!

Experience advanced heating technology – all at the push of a button.





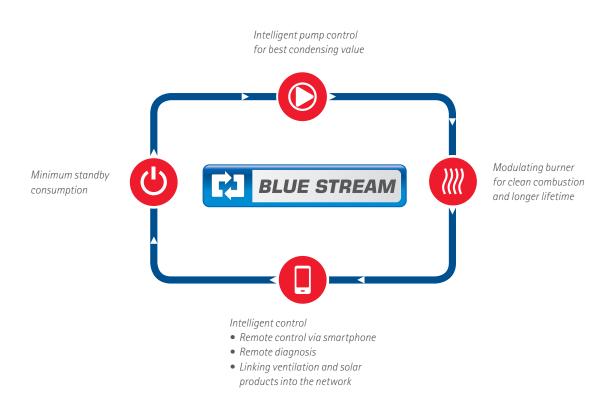
## The beauty of progress

# The new condensing generation

You will quickly be won over by the inner values of the new CGB-2 series of condensing boilers from Wolf. The efficiency concept has moved on from the previous series, and now offers four notable benefits:

- The self-calibrating combustion controller that adapts to the prevailing gas quality means that the gas:air
  mixture needs never to be adjusted again. This also applies to changing gas qualities (e.g. if biogas is mixed in).
  Furthermore, the system can modulate down to a minimum output of 1.8 kW. This translates into fewer burner
  starts, extremely clean combustion and the highest level of efficiency.
- 2. The **low standby losses, for which Wolf appliances have a high reputation** and receive praise in many consumer tests, have been improved yet further. It is not only fossil fuels that are becoming ever more expensive the price of electricity keeps going up, too.
- 3. The **intelligent pump control unit** addresses this issue by further reducing the overall auxiliary power demand. No overflow value and no return temperature raising function are required for the highest utilisation of the condensing effect.
- 4. This **intelligent control technology**, which can be adjusted and optimised by smartphone or PC, lets consumers regulate the system precisely in accordance with their heat demand.

We thought these new inner technological achievements deserved an external design to match! So, the new CGB-2 series brings together our outstanding new technology in a highly contemporary and elegant design.





### More versatile than ever – better than ever

# CGB-2 series - state of the art condensing technology

The new CGB-2 wall mounted gas condensing boilers are worthy successors to their consumer test winning predecessors. With output levels of 14, 20 or 24 kW, they offer the best possible solution for a wide range of buildings.

What makes these appliances so special is the electronic, gas-adaptive combustion controller that adjusts automatically to the prevailing gas quality. Users will also enjoy the low standby losses and high efficiency, while the environment will benefit from the extremely clean combustion. Customers will find the highly compact design of these appliances make them the perfect choice when replacing older boilers in any situation. A pivoting combustion chamber, as well as the clear and accessible layout, makes them as easy to service as their predecessors.

#### Benefits to remember:

- Variable modulating output from as low as 1.8 kW
- · Gas-adaptive and self-calibrating combustion controller for extremely clean combustion and adaptation to changing gas qualities (e.g. if biogas is mixed in)
- No need to adjust the gas:air mixture
- Can be converted to LPG without CO<sub>2</sub> adjustment
- Long burner runtimes, fewer burner starts, improved efficiency
- Coated heating water heat exchanger ALUPro
- Sustainable design that holds its value components can be replaced individually
- Equipped with the new Wolf control system
- Optimum utilisation of the condensing effect by controlling the spread (flow/return temperature)
- Connections compatible with previous models
- · Casing insulated on the inside for quiet operation
- No overflow value and no return temperature raising function are required for the highest utilisation of the condensing effect
- Commissioning with users prompts
- Integral high efficiency pump EEI < 0.23</li>
- Electronic pressure gauge

CGB-2(K)	14	20	24
Heating output min. – max. kW	1.8-15.2	3.8-20.4	4.8-25.8
Output during cylinder heating kW	1.8-13.5	3.8-22.2	4.8-27.1
Combi DHW output kW	-	3.8-22.2	4.8-27.1











Heating, DHW, mechanical ventilation and solar: Common operation via a single programming module or smartphone app





Central ON/OFF switch in the "o" of the Wolf logo

## High-tech successor to the Wolf test winner

# CGS-2L – the floorstanding solution with stratification cylinder technology

The CGS-2L gas condensing centre is the larger version of the CGB-2 wall mounted gas condensing boiler. Similar benefits are on offer. As was the case with the previous model, the CGS-2L comprises a wall mounted gas condensing boiler with stainless steel DHW heat exchanger and a stratification cylinder. All these parts are assembled into a practical and compact module, which can be split into units of 35 kg and 49 kg.

#### Further benefits to remember:

- Booster for DHW heating and "turbo stop system" for convenient DHW heating, which corresponds to a DHW cylinder (with indirect coil) of 120, 160 or 200 l capacity
- In just a few minutes, 90 I DHW at 60 °C can be available
- High performance factor NL = up to 2.5
- · Heating and cylinder modules can be quickly separated for easier handling
- Equipped with the new Wolf control system

CGS-2L	14	20	24
Heating output min. – max. kW	1.8-15.2	3.8-20.4	4.8-25.8
Output during cylinder heating kW	1.8-13.5	3.8-22.2	4.8-27.1
Equivalent cylinder capacity in I	120	160	200













## The perfect solution for direct replacement of wall mounted appliances

# CGW-2L - there's no faster way to upgrade

The CGW-2L wall mounted gas condensing centre comprises a CGB-2 gas condensing boiler with stainless steel DHW heat exchanger and a stainless steel stratification cylinder with special thermal insulation.

Just like the floorstanding solution, the CGW-2L offers high levels of DHW convenience in a small space – with the added benefit that it is mounted on the wall. This appliance, which is designed for easy separation into two easy-to-handle modules of 35 kg and 19 kg, is fully wired and ready to connect to the water system. This results in the lowest assembly and installation costs.

#### Further benefits to remember:

- Integral and convenient DHW heating better than a DHW cylinder (with indirect coil) with 100, 120 or
   140 I capacity
- "DHW turbo" with a new routing and distribution system for hot and cold water inside the stratification cylinder, to ensure steady, radial water distribution for excellent DHW output
- High savings on operating costs through efficient DHW heating and innovative insulation technology
- Compact layout of the condensing boiler and stratification cylinder for the lowest assembly and installation costs
- Gas condensing centre, fully wired and ready to connect to the water system
- Can be split into two modules of 35 kg and 19 kg for easy installation
- Equipped with the new Wolf control system

CGW-2L	14	20	24
Heating output min. – max. kW	1.8-15.2	3.8-20.4	4.8-25.8
Output during cylinder heating kW	1.8-13.5	3.8-22.2	4.8-27.1
Equivalent cylinder capacity in I	100	120	140













## The perfect combination of gas and solar

# CSZ-2R – the sun helps you save, too

The CSZ-2R gas condensing solar centre was also developed and equipped according to the condensing efficiency concept. As a result, the CSZ-2R can cover up to 60 % of the DHW heating with solar energy, making it the perfect system solution.

This compact, modular and visually appealing solar centre comprises the following: CGB-2 gas condensing boiler, BM-2 programming module, solar cylinder, solar pump assembly with high efficiency pumps and SM-2 solar controller, 25 I solar expansion vessel and collecting vessel for the solar fluid. The solar cylinder has a 300 I capacity which is sufficient to receive the energy from three collectors for a living space of up to 150 m<sup>2</sup>. This means it complies with the requirements of the German "Renewable Energies Heat Act".

The new programming module allows the entire system to be controlled and analysed, for example the solar yield, converted into kilowatt hours, m<sup>3</sup> of natural gas or litres of fuel oil. The solar yield is shown graphically – sorted according to months and years.

#### Further benefits to remember:

- Compact gas condensing solar centre
- Solar cylinder with high grade thermal insulation, even protecting the cylinder floor
- Excellent accessibility of all components for operation and service from the front, offering plenty of siting options
- Connections for central heating and solar circuit on the l.h. or r.h. side
- Small side clearance required only on the connection side
- Solar boiler stop for high solar yield
- Equipped with the new Wolf control system

CSZ-2R	14	20	24
Heating output min. – max. kW	1.8-15.2	3.8-20.4	4.8-25.8
Output during cylinder heating kW	1.8-13.5	3.8-22.2	4.8-27.1
	Dual mode cylinder with 300 I capacity		

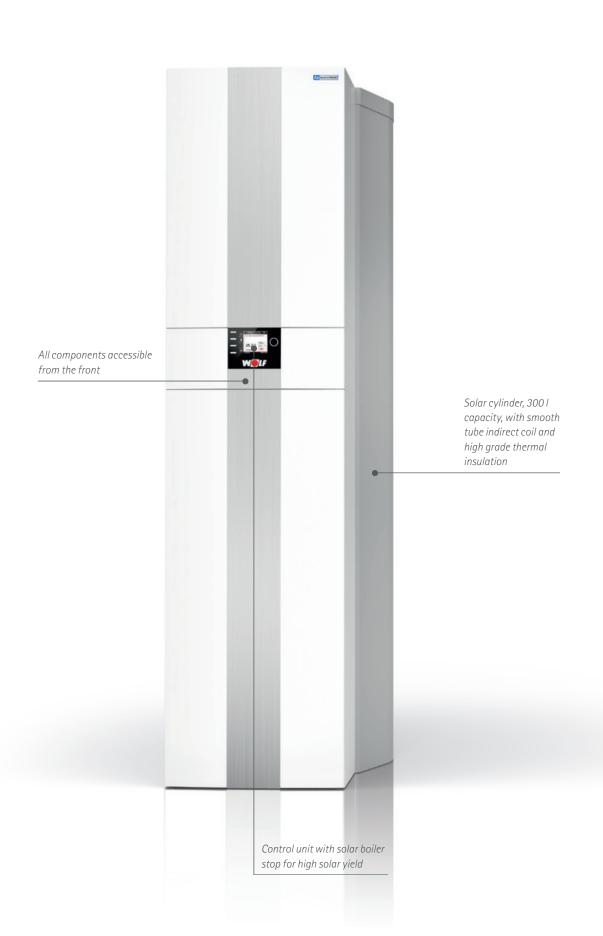












## State of the art oil condensing technology

# Heating with oil was never more economical than with the TOB

The TOB is based on the same general principle as the COB – the German consumer association "Stiftung Warentest" test winner. However, Wolf development engineers have now been able to improve the burner unit even further. The most pertinent new development concerns the use of the modulating combustion principle that employs pressure vaporisation and the patented mixing swirl nozzle. Oil preheating and oil evaporation are not required, which saves on auxiliary power consumption.

During combustion, the pump rate is continuously matched to the prevailing demand with the highly efficient and variable speed EC oil pump motor. This ensures the highest efficiency with very clean combustion, whilst the already low auxiliary power consumption is reduced even further. The TOB, just like its gas equivalent, the CGB-2, modulates its output according to the actual demand. It is also available as the TOB-TS with an adjacent stratification cylinder.

#### Twelve benefits to remember:

- Latest technology that builds on the success of the COB, German consumer association "Stiftung Warentest" test winner
- Proven combustion principle of pressure vaporisation
- Modulating output from 6.6 to 18.6 kW, always matched to the current heat demand
- Low energy consumption on account of low minimum output and technology that does not require
   oil preheating or oil evaporation
- Equipped with the new Wolf control system
- Low standby consumption
- Highly efficient variable speed EC oil pump motor reduces power consumption even further
- Optimum utilisation of the condensing effect due to stratification operation with TS cylinder and controlled spread (flow/return temperature)
- Can be operated with standard fuel oil, low-sulphur fuel oil EL or bio-oil (B10)
- High grade oil filter with vacuum gauge as part of the standard delivery
- Electronic system pressure gauge
- Clean combustion: Standard emissions at 40/30 °C to DIN 4702-8:
   CO < 6 mg/kWh, NOX < 48 mg/kWh</li>

TOB/TOB-TS OIL CONDENSING BOILER	18
Heating output min. – max. kW	6.3-18.6
Equivalent DHW cylinder capacity in I	220













Heating, DHW, mechanical ventilation and solar: Common operation via a single programming module or smartphone app



## The heating solution for larger buildings

# MGK-2 – saving made easy

Wolf also recommends the new MGK-2 medium-sized gas condensing boiler with 17 to 100 % output modulation at a rated output level of 390-630 kW, or up to 2.5 MW in a cascade. It is available in four sizes. Thanks to its quiet operation and compact dimensions, it is especially suitable for effective modernisation or refurbishment of existing buildings. The new MGK-2 requires no minimum amount of circulating water or return temperature raising facility, making it particularly economical. Furthermore, users will be delighted with the easy operation of the BM-2 programming module, with its built-in colour TFT display and its many new auxiliary functions.

#### Benefits to remember:

- Rated output 390-630 kW; as cascade up to 2.5 MW
- Wide modulation range from 17 to 100 %
- Extremely modest dimensions: fits through an 80 cm doorway; easy handling with pallet truck
- Ideal for modernisation projects as it is easy to split: largest module 1460 mm x 1295 mm x 790 mm
- Removable cover for optimum accessibility
- Equipped with the new Wolf control system and BM-2 programming module with plain text display and commissioning with user prompts
- Optimum utilisation of the condensing effect by controlling the spread (flow/return temperature)
- Optimum, easy-to-service neutralisation box with booster pump to make the granulate last longer
- Directly switched three-phase pumps
- Appliance has full thermal insulation
- Electronic system pressure gauge

TYPE	MGK-2-390	MGK-2-470	MGK-2-550	MGK-2-630
Heating output min. – max. kW	58-392	71-467	85-549	97-627
Modulation	17-100%	17-100%	17-100%	17-100%
Weight	390 kg	420 kg	450 kg	480 kg











Optimum accessibility for  $adjust ments\ and\ main tenance$ thanks to removable cover

> Compact dimensions: fits through an 80 cm doorway. Easy to split: largest module 1460 mm x 1295 mm x 790 mm



Slot at the back for pallet truck forks to facilitate handling

ISM7i LAN/WLAN interface module can be integrated

## The programming module for the next generation

# BM-2 with intuitive system operation – it could hardly be any more convenient

"Smart Home" is the keyword for intelligent, networked building management. The new BM-2 programming module is the key to effective control over heating, solar thermal and ventilation systems.

This convenient device can be used in all appliances belonging to Wolf's new range of condensing boilers. It can also be used as an external remote control, fitted in a wall mounting base. The CWL Excellent mechanical ventilation system interacts seamlessly with this module, thanks to the E BUS used for communication. In addition, control by Apple iPhone is possible (requires the ISM7i interface module).

Four function keys and a rotary selector make the programming module quick and intuitive to control. Software updates can be loaded by the installer using an SD card slot. Plain text and graphic display for absolute clarity. Controller settings can be made directly. If required, contractors can order the necessary spare parts without delay.

#### Benefits to remember:

- TFT colour display, user friendly with clear depiction of graphics and information
- Can be integrated inside the boiler or mounted on the wall in the living space as a remote control
- Four function keys for quick navigation, selection and input by push & turn
- Fault messages as plain text
- Installed WRS components are automatically recognised and preconfigured
- SD card slot for software updates
- Operation of the following: heat generator, heating circuits with and without mixer, DHW system, Wolf solar thermal system integrated into the heating system and CWL Excellent comfort mechanical ventilation units















### Your link to the future

# The new LAN/WLAN interface module ISM7i

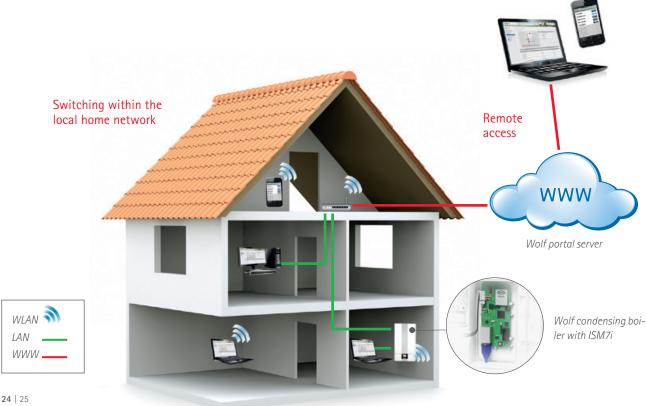
Now heating starts to become interesting, because the ISM7i interface module allows the heating system to be integrated into a LAN or WLAN network. For secure communication via the internet, the interface module is simply linked to the existing broadband router which then makes the connection to the secure Wolf portal server.

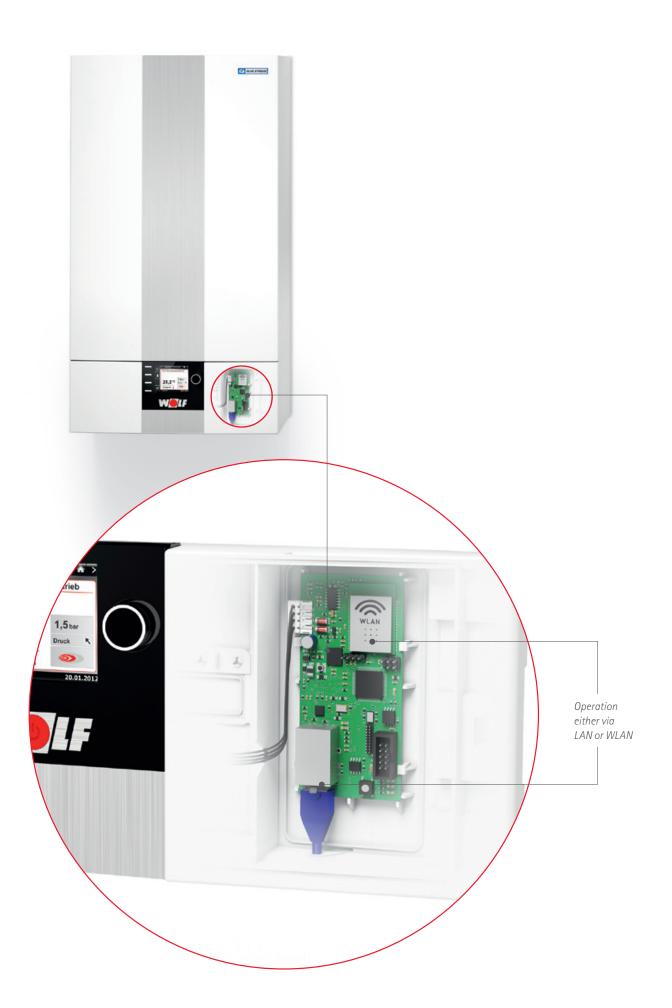
Remote control via the internet uses either a smartphone via "Smartset"-App or PC, both of which access the convenient browser-based user interface of the Wolf portal. An internet connection is not required if access to the heating system is to be limited to the local home network.

The Wolf communication system gives contractors access to the Wolf heating system via the internet. Fault messages are automatically sent by email to the system operator and the contractor.

#### ISM7i benefits:

- Communication via home network or internet
- Heating system operation and monitoring via a home network; also possible without internet connection
- Remote control and monitoring via the internet
- Remote diagnosis by contractors or Wolf service engineers
- Fault messages by email
- Management of several systems by contractors





## Heating systems under full control

# Perfect control via smartphone and PC

#### Wolf Smartset operating app - the user level

In connection with the ISM7i interface module and a smartphone, the WRS Smartset app allows users to conveniently operate their heating systems no matter where they are. An internet connection will only be made if permitted by the user.

#### Wolf portal - the contractor level

Full access to the selected heating system is possible from the contractor level. The system components are graphically illustrated by various schemes, and the associated operating conditions are also shown. Adjustments can be made and parameters called up and modified. In addition, the integral datalogger can record values and conditions, which can also be shown in graphic form. Furthermore, active fault messages and a fault history are displayed.

#### Benefits to remember:

- Easy and clear operation
- Operating mode changeover
- Heating/setback mode demand
- Time programs can be set for central heating and DHW
- Set value input
- Solar yield display
- Display and recording of all relevant temperatures and operating conditions
- Display of active fault messages and fault history
- Management of several systems by contractors
- Possibility of remote diagnosis for expert



Wolf Smartset operating app – user level











Heating, DHW, mechanical ventilation and solar: Common operation via a single programming module or smartphone app



Wolf portal – contractor level (shown on a tablet)

## Where efficiency lies

# BWW-1 high efficiency heat pump from Wolf

Wolf extends its successful range of heat pumps to include the BWW-1 water/water heat pump. As with models BWS-1 and BWL-1, the BWW-1 draws its energy directly from nature – in this case from groundwater. Groundwater has a temperature of 8 to 12 °C all year round, which enables the BWW-1 to achieve a COP of 5.4 to 5.6.

#### Benefits of the new BWW-1 heat pump:

- High COP, efficient operation
- No deep drilling for probes required
- Corrosion-resistant, nickel-brazed intermediate heat exchanger made from stainless steel
- Optional passive cooling with the BKM (accessory)
- Whisper-quiet operation

TYPE	BWW-1-07	BWW-1-11	BWW-1-13	BWW-1-15	BWW-1-21
Heating output at W10/W35 kW	7.1	10.5	13.3	15.0	20.8
COP at W10/W35	5.4	5.6	5.6	5.5	5.5











Stainless steel, corrosionresistant, nickel-brazed intermediate heat exchanger that is diffusion-proof, thermally insulated and includes wall mounting bracket



High efficiency heat pump

## The heating system that also provides cooling

# BWL-1S(B) split air source heat pump

The BWL-1S(B) split air source heat pump is new to the Wolf heat pump range. It is ideal for all locations where cooling as well as heating will be required.

By modulating its output, the BWL-1S(B) matches its heating, cooling and DHW operation to requirements. The compact outdoor module can be installed at a distance of up to 25 m from the indoor module, requiring just 2 refrigerant lines of Ø10 mm and Ø16 mm. This provides a high degree of flexibility and facilitates installation. The space saving outdoor module can either be installed on a plinth or on a wall mounting support.

#### Benefits to take note of:

- Electronic output control via inverter compressor
- High efficiency with COP of up to 3.8 at A2/W35 (EN 14511)
- Can be used as a hybrid in combination with other heat generators, such as oil, gas, solar or biomass
- Integral heat meter
- Fully compatible with Wolf control system
- Operation with BM-2 programming module or AM display module, both of which can be integrated

- ISM7i LAN/WLAN interface module can be integrated in the indoor module
- Integral high efficiency pump EEI < 0.23
- 6 kW heating rod (400 V or 230 V connection options)
- Can also be supplied as BWL-1SB: Indoor module without heating element for dual mode operation with an external heat generator
- Optionally also available as a heating centre in combination with the CEW-2-200 DHW cylinder
- Hydraulic connection set for quick on-site installation of cylinder and indoor module

ТҮРЕ	BWL-1S(B) - 07/230V	BWL-1S(B) - 10/400 V	BWL-1S(B) - 14/400 V
Dimensions of external unit (width x depth x height) incl. feet and front panels	1040 mm x 865 mm x 340 mm	900 mm x 1255 mm x 340 mm	900 mm x 1255 mm x 340 mm
Dimensions of internal unit (width x depth x height) incl. feet and front panels	440 mm x 790 mm x 340 mm	440 mm x 790 mm x 340 mm	440 mm x 790 mm x 340 mm
Weight of external / internal unit	66 kg/33 kg	110 kg/35 kg	110 kg/37 kg
Heating output / COP at A2/W35 to EN 14511	5.5 kW/3.4	7.6 kW/3.8	9.0 kW/3.7
Heating output / COP at A7/W35 to EN 14511	7.0 kW/4.3	10.2 kW/4.8	12.1 kW/4.7
Heating output range at A2/W35	1.9 – 8.8 kW	2.9 – 10.6 kW	3.1 – 12.4 kW
Cooling capacity / EER at A35/W18 to EN 14511	8.7 kW/3.4	8.8 kW/3.8	12.8 kW/3.7





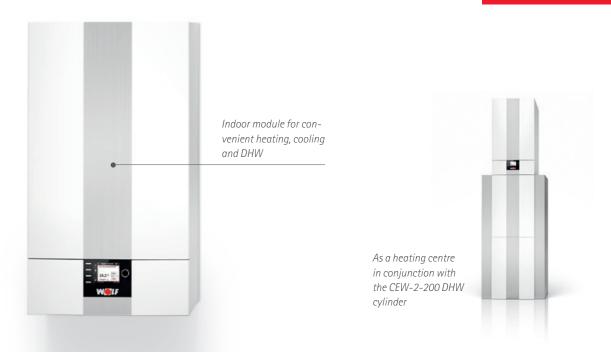








Heating, DHW, mechanical ventilation and solar: Common operation via a single programming module or smartphone app





## Efficiency times five

# Heat pumps in a cascade

Now up to five heat pumps can be operated in a cascade via E BUS with the new software extension for the KM cascade module. Above a certain heat load in a building, it may be more efficient to let conventional condensing boilers take over the provision of heating and DHW. This kind of operation is referred to as a dual mode system. Naturally, the new software extension is also equipped for this important function.



### Benefits of the KM cascade module in conjunction with heat pumps:

- Up to five heat pumps, including electric booster heaters, can be linked in a cascade
- Up to four heat pumps can be combined with an additional heat generator (e.g. a CGB-2 or TOP)
- Optional automatic changeover to the additional heat generator for DHW heating
- Automatic changeover to the additional heat generator if the selected dual mode point is undershot
- Maximum operational reliability through intelligent redundancy management
- Automatic changeover from heat pump to additional heat generator during power-OFF periods (when the power supply utility switches off the heat pump supply)



### Lower electricity prices all round

# GTK-4 gas micro CHP unit for apartment buildings and commercial premises

The heating system that also produces electricity. The GTK-4 micro CHP unit from Wolf offers a new dimension in energy saving. It reduces primary energy consumption by simultaneously generating power and heat, thereby also reducing  $CO_2$  emissions. This is ensured by an exceptionally quiet 2-cylinder V-engine, which generates power and turns the waste heat into useable heating energy (combined heat and power generation).

#### Benefits of the GTK-4 at a glance:

- High overall efficiency of 95 % due to integrated gas condensing technology; no return temperature raising required
- Ideal for use in older buildings: Stable, regulated flow temperature of 75 °C
- Compact dimensions and low weight for easy handling and installation; plug-in connections to the control
  panel
- Clearly structured layout facilitates maintenance
- Power-optimised operating mode enables high proportion of on-site consumption
- Attractive subsidies available through BAFA and KfW (Germany)

MICRO CHP UNIT	TYPE GTK 4
Electrical efficiency (Hi)	25%
Overall efficiency (Hi)	95%
Thermal output in kW	8.5/10/12
Electrical output, adjustable, in kW	2/3/4
Dimensions (width x depth x height)	680 mm x 790 mm x 1290 mm
Shipping weight (excl. casing)	230 kg
Total weight	320 kg





### AIR HANDLING AND VENTILATION TECHNOLOGY WITH HIGHLY EFFICIENT HEAT RECOVERY

If you want to significantly improve the lifecycle costs of your building, keep occupants, staff and guests comfortable, and even be able to check that the system is running reliably without leaving your desk, then Wolf air handling technology is for you – and it can all be done at the push of a button!

Ventilation equipment has become a central component of modern building design. Wolf continues to expand its range of appliances that encourage good health, well-being and system efficiency.



# A perfect climate and high efficiency are not mutually exclusive

# CWL Excellent comfort mechanical ventilation units

The new Wolf CWL-180 Excellent, CWL-300 Excellent and CWL-400 Excellent comfort mechanical ventilation units are distinguished by their light and compact design, removable plastic cross-countercurrent plate heat exchanger and low energy consumption with heat recovery of up to 95 %. The CWL-300 Excellent and CWL-400 Excellent include a bypass and electric preheater coil as standard. In addition, all three models are available with an optional category F7 supply air filter. Furthermore, reheater coils, enthalpy heat exchangers, air quality sensors and humidity sensors are available as accessories.

#### Benefits to remember:

- Clean, pollen-free fresh air plus traffic noise is kept outside
- Removable plastic cross-countercurrent plate heat exchanger
- Heat recovery up to 95 %
- Automatic frost protection control
- "Constant flow" energy saving EC DC fans
- Category F7 outdoor air filter available as an option
- Engineering support with Wolf sizing software



CWL EXCELLENT	180	300	400
Max. air flow rate at max. external pressure	180 m³/h at 150 Pa	300 m³/h at 150 Pa	400 m³/h at 150 Pa
Dimensions (width x depth x height)	560 mm x 315 mm x 600 mm	677 mm x 564 mm x 765 mm	677 mm x 564 mm x 765 mm
Electrical connection	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Power consumption	62-86 W	3-138 W	3-172 W
Filter grade	G4 (F7 as accessory)	G4 (F7 as accessory)	G4 (F7 as accessory)
Integral preheater coil	-	Yes	Yes
Bypass	-	Yes	Yes













# Delivering fresh air, even where space is at a premium

# CWL-F Excellent slimline mechanical ventilation units

It may sometimes prove difficult to install a mechanical ventilation system because there is insufficient space available - not only a problem in existing buildings. This is where the new Wolf slimline ventilation units come into their own. Their low installed height and whisper-quiet operation enables easy installation above suspended ceilings or in narrow room recesses. The BML Excellent programming module with E BUS interface acts as a remote control. Its graphic display makes adjusting the 7-day/day program particularly easy. Ventilation is regulated in four stages, whilst a service indicator automatically notifies you when maintenance is required.

## Benefits of the CWL-F-150 Excellent and CWL-F-300 Excellent at a glance:

- Compact, slimline design for ceiling and wall mounting
- Clean, pollen-free fresh air plus traffic noise is kept outside
- Removable plastic cross-countercurrent plate heat exchanger
- Heat recovery up to 95 %
- Bypass as standard
- Automatic frost protection control
- Constant flow fans
- Low energy consumption due to EC DC fans



CWL-F-150 Excellent with integral preheater coil

CWL-F EXCELLENT	150	300
Max. air flow rate at max. external pressure	150 m³/h at 100 Pa	300 m³/h at 150 Pa
Dimensions (length x width x height)	1000 mm x 660 mm x 198 mm	1185 mm x 644 mm x 310 mm
Electrical connection	230 V/50 Hz	230 V/50 Hz
Bypass	Integral	Integral
Power consumption	11-72 W	9-163 W
Filter grade	G4 (F7 as accessory)	G4 (F7 as accessory)
Preheater coil	Integral	optional external
Reheater coil	optional external	optional external











Heating, DHW, mechanical ventilation and solar: Common operation via a single programming module or smartphone app



## Position, connect, go!

# Comfort compact ventilation units: CKL available in new sizes, CRL with thermal wheel heat exchanger

In offices, larger residential complexes, restaurants and canteens, schools and nursery schools, the Wolf series of compact ventilation units with heat recovery is the ideal solution for convenient and energy efficient ventilation. With a variably adjustable output, the units are able to supply the rooms of a wide range of buildings with sufficient amounts of filtered outdoor air. At the same time, a corresponding volume of stale indoor air loaded with  ${\rm CO_2}$  can be removed and disposed of as exhaust air. This successful model is now available in new sizes.

#### Benefits to take note of:

- Compact air handling unit up to 9000 m<sup>3</sup>/h
- Highly efficient (A+ rated as per Air Handling Directive 01)
- Integral WRS-K control unit with many programmable inputs and outputs; can be extended to include auxiliary modules
- Automatic frost protection control
- Extensive range of accessories can be fitted (e.g. silencer, heating coil, cooling coil)
- Highly efficient, variable speed EC fans
- VDI 6022 as standard

- LON, BACnet or Modbus interface module for connection to building management system
- Straightforward LAN connection via Ethernet interface with integral web server

#### Further features:

- Ribbon heater available for siphon (condensate occurs on the extract air side in winter)
- Up to 30 % power savings compared with systems that use asynchronous motors
- Test points for capturing the flow rate accessible from the outside
- Unit is fully wired for fast, straightforward commissioning

								Available fro	m May 2014
DIMENSIONS EXCL. FITTED	PARTS	CKL- A-5800	CKL- IH-4400	CKL- IH-5800	CKL- IV-4400	CKL- IV-5800	CRL- IH-4800	CRL- IH-6200	CRL- IH-9000
Flow rate	m³/h	5800	4400	5800	4400	5800	4800	6200	9000
Length	mm	2237	2237	2237	2237	2237	1728	1932	2136
Width (incl. closure)	mm	1665*	1360	1665	1360	1665	1322	1626	1626
Height (excl. base frame / cover)	mm	1423	1423	1423	1423	1423	1423	1423	2034
Weight	kg	800	630	725	645	725	590	715	845

\* incl. cover 1725 mm





CKL-iV for indoor installation



CKL for outdoor installation



Integrated high performance thermal wheel heat exchanger



## Optimal thermal separation of the appliance frame

# KG Top.eco – even more economical as a result of thermal casing separation

Extremely versatile at the engineering stage, easy to handle during transport and installation, and highly efficient for the user: The KG Top series of appliances represents the most efficient bespoke air handling technology for any building project, today. With the KG Top.eco, Wolf has extended its series of air handling units to include a version with a thermal bridge factor TB2 to EN 1886. The appliance frame is thermally perfectly separated, and features a weather-resistant plastic jacket and special door design. This prevents the formation of condensate on the casing, even where there are major differences in temperature and very high humidity levels. The 50 mm casing panels are insulated with high grade, non-combustible mineral wool (A1). All surfaces that come in contact with the air are galvanised (alternatively, they can be powder-coated or made of stainless steel). All gaskets are closed cell, nonmoisture absorbent and resistant to disinfectants and ageing. All surfaces that come into contact with the air are made of materials that do not emit any hazardous substances or offer any breeding ground for microorganisms.

The KG Top.eco can be used in all areas that are subject to higher humidity levels, such as saunas, swimming

pools, production facilities and tropical regions. It is available with an air handling rate of up to 17,000 m<sup>3</sup>/h, can be individually configured and is compatible with the current KG Top series.



KG Top.eco with thermally separated appliance

CASING DETAILS SUPPLIED BY TÜV SÜD TO DIN EN 1886:				
Thermal transmission category	T2			
Thermal bridge category	TB2			
Casing tightness category	L1			
Mechanical strength	D1			
Material category to DIN 4102	A1 (non-combustible)			
Sound attenuation dimension Rw	43 dB to DIN EN ISO 717T1			









KG Top.eco available as hygiene version



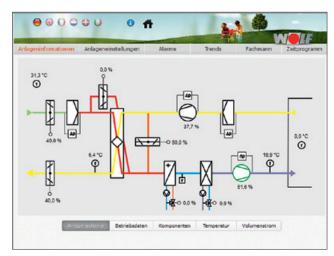
## Wolf air handling systems are close at hand

# Convenient operation of the WRS-K control unit via touch panel

Accurate control is essential to the optimum operation of air handling units. With the WRS-K control system, Wolf has invested in even greater energy efficiency, convenience and economy. This control system has a modular design, meaning it can be adapted individually to suit your particular system.

You can adjust system parameters and time programs via the 10.4" touch panel display, and enjoy its capacitive touch technology, which you'll recognise from your smartphone.

You can view the system's actual values and operating conditions. Using the graphic records of operating data, the way the system operates can be analysed and optimised.



System scheme



Data record



# Wolf system design

# Central heating, air handling and ventilation from a single supplier



Heating technology



Air handling/ ventilation technology



Combined heat and power



Oil condensing systems



Gas condensing systems



Solar thermal technology



Biomass



Heat from ground and air



DHW



Control technology



Cooling applications



Humidification/ dehumidification



Hygiene



Smartphone control



Service

## Sales offices

### Sales offices in Germany:

Sales office Berlin D-14974 Ludwigsfelde Tel. 03378/8577/-3

Sales office Dortmund D-44287 Dortmund Tel. 0231/945361/-0

Sales office Dresden D-01723 Wilsdruff Kesselsdorf Tel. 035204/7858/-0

Sales office Düsseldorf D-40764 Langenfeld Tel. 02173/6851030

Sales office Frankfurt D-61191 Rosbach Tel. 06003/93455-0

Sales office Hamburg D-22453 Hamburg Tel. 040/52605880

Sales office Hannover D-30179 Hannover Tel. 0511/6766963

Sales office Koblenz D-56218 Mülheim-Kärlich Tel. 02630/96246-0

Sales office Leipzig D-04442 Zwenkau Tel. 034203/583-0

Sales office Mannheim D-69168 Wiesloch Tel. 06222/67870-0

Sales office München D-85748 Garching Tel. 089/13012200

Sales office Nürnberg D-96050 Bamberg Tel. 0951/208540

Sales office Osnabrück D-49076 Osnabrück-Atterfeld Tel. 0541/91318-0 Sales office Regensburg D-84048 Mainburg Tel. 08751/74-2650

Sales office Stuttgart D-70794 Filderstadt-Bonlanden Tel. 0711/939209-0

#### Subsidiaries:

France Wolf France S.A.S. FR-91349 Massy Tel. +33/1/60 13 64 70

Italy Wolf Italia SRL IT-20097 S. Donato Milanese Tel. +39/02/516 16 41

Netherlands Wolf Energiesystemen NL-8263 CB Kampen Tel. +31/38/333 68 01

Poland Wolf-Technika Grzewcza PL-05-806 Komorow Warszawa Tel. +48/22/720 69 01

Russia Wolf Energiesparsysteme, RUS – 129226 Moscow Tel. +7/499/ 678 26 55

Spain Wolf Ibérica S.A. ES-28830 San Fernando Henares (Madrid) Tel. +34/91/661 18 53

## Representations:

Greece Wolf GmbH 55535 Thessaloniki Tel. +30/23/10 32 20 00

Slovenia Wolf GmbH SI - 3301 Petrovce Tel. +386/3/ 710 12 70

### Distribution partners:

Check www.wolf-heiztechnik.de for a detailed overview of all our distribution partners.



