

# Operating instructions

## Oil condensing boiler

**COB**            **Boiler for heating**

**COB-CS**       **Boiler with stratification cylinder**



<b>Index .....</b>	<b>Page</b>
Safety instructions .....	3
Installation information / Maintenance information .....	4
Hydraulic connections .....	5
Control unit operation .....	6
Information for energy-efficient operation .....	7-8
Faults / Fault codes .....	8

**General notes**

Your oil condensing boiler is a high-quality product which incorporates the latest safety technology.



**These safety instructions should protect you from potential risks.**

**SAFETY INSTRUCTIONS****If you smell flue gas**

- Shut the system down
- Open windows and doors
- Notify your local contractor

**Caution - risk of poisoning!****When changing a fuse**

- Isolate the boiler from the power supply before changing a fuse. The mains terminals of the boiler are 'live' even when the ON/OFF switch has been switched OFF.

**Caution - risk of electrocution!****Frost protection**

The oil condensing boiler will be automatically protected against frost as long as it is switched on.  
The use of anti-freeze is not permissible.  
Completely drain the boiler if necessary.

**Caution - risk of water damage and faulty function through freezing.****Balanced flue routing**

With low outside temperatures, the water vapour contained in the flue gas may condense and freeze on the balanced flue. **This ice may fall from the roof causing injury or material losses.** Prevent ice from falling by taking on-site measures, e.g. the installation of a snow guard.

**Caution - risk of injury.**

## Positioning/modifications

- Your oil condensing boiler should only be installed and modified by an approved heating contractor, as only they have the essential knowledge to carry out such work.
- Flue gas components must not be modified.
- **Never close or restrict the ventilation apertures in doors or walls when operating the boiler in the open flue mode; only start the boiler when the flue has been fully installed.**
- **Only operate the boiler in balanced flue mode, after the balanced flue system has been fully installed and the wind protector is not covered up.**
- Oil condensing boilers may only be installed in rooms which are protected from frost.
- Never isolate the oil condensing boiler from the power supply when outside temperatures fall below freezing, otherwise there is a risk of the system freezing up.
- Do not modify the drain or the safety valve.



**Caution - ignoring this rule may lead to a risk of fire as well as a risk of destruction, poisoning or explosion!**



**Do not use or store explosive and flammable materials, e.g. petrol, thinners, paints, paper etc. inside the boiler room!**

## Corrosion protection

Do not use (for cleaning, polishing etc.) or store sprays, solvents, chlorinated cleaning agents, paints, lacquer, adhesives, salts etc. on or in the vicinity of the oil condensing boiler. Under unfavourable conditions, these materials may lead to corrosion in the boiler and the flue gas system. Ducted vents routed through a roof may also contain corrosive vapours.

## Care

Clean the casing with a damp cloth and a mild cleaning agent (must not contain chlorine). Then dry immediately afterwards.

The boiler components may only be cleaned by a heating contractor.

## Maintenance



**NB - only the heating contractor offers the required knowledge and expertise!**

- According to the regional regulations, the user is obliged to arrange regular maintenance of the system in order to ensure the reliable and safe function of the oil condensing boiler.
- Your boiler should be serviced annually.
- Maintenance is explicitly detailed in the installation and maintenance instructions.
- Isolate the boiler power supply before any maintenance work is carried out.
- After a service and before the oil condensing boiler is restarted, check that all components that were removed for maintenance have been properly refitted.
- We recommend you arrange a maintenance contract with an approved heating contractor.

Please note before commissioning

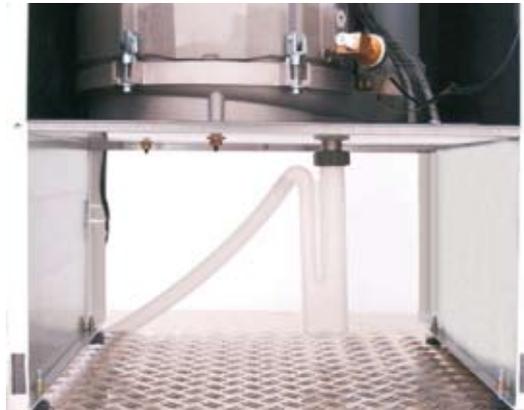
## Filling the system

The heating system must be completely filled with water. If necessary top up with water. When filling the heating system, the shut-off valves must be open. The system pressure must be 1.5 to 2.5 bar. The connection required for filling between the tap water and heating water must be removed after the fill has been completed. Otherwise there is a risk that your tap water will be contaminated by heating water.

**NB** Inhibitors are not permissible. Otherwise there is a risk of damage to the boiler.

## Filling the siphon

The siphon must be fitted and filled. Otherwise there is a risk of flue gas escaping.



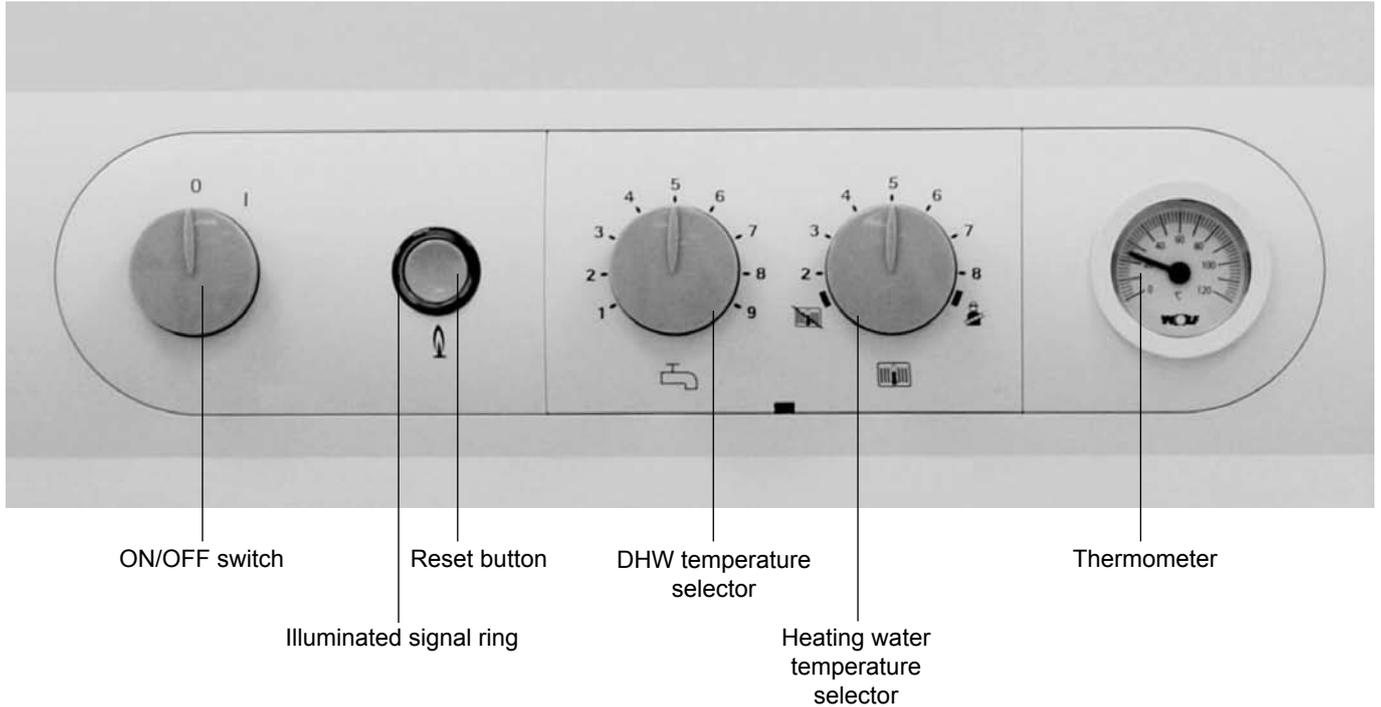
## Opening the shut-off valves

The shut-off valves for heating flow and return must be open.

## Checking the water level

Regularly check the water level. The pressure gauge must indicate between 1.5 and 2.5 bar. Your heating contractor will explain how to top up your system. Do not supplement your heating water with additives, otherwise components may be damaged.

### Control unit operation



### Illuminated signal ring as status indicator

Illuminated signal ring	Explanation
Flashing green	Standby (power supply ON, burner OFF, e.g. summer mode)
Constant green light	Winter mode: Pump running, burner OFF
Flashing yellow	Emissions test mode
Constant yellow light	Burner operating, flame ON
Flashing red	Fault

	Summer mode (heating OFF)	
	Winter mode position 2 to 8	
	Emissions test mode (illuminated ring flashing yellow)	
	DHW temperature selector, boiler	1 (15 °C) ... 9 (65 °C)
	Heating water temperature selector	2 (20 °C) ... 8 (75 °C)

### Note:

The BM programming module can also be integrated into the boiler control unit. That means that all adjustments are made at the boiler control unit. For installation and operation, see installation instructions and BM programming module operating instructions.



## Heating mode

### **Saving energy with modern heating technology: oil condensing technology saves your cash**

Modern condensing technology utilises that energy for heating, which in conventional heating systems is expelled unused to the atmosphere with the flue gas.

### **Use as little electrical energy as possible**

Operate your system with multi-stage heating pumps at the lowest possible level. Modulating pumps generally do not require adjustments, since they are automatically matched to the prevailing demand.

### **Regular heating system maintenance pays for itself**

A contaminated burner or poorly adjusted boiler can reduce the heating system efficiency. Regular heating system maintenance through your local contractor quickly pays for itself.

### **Heating at the lowest energy level**

Operate your heating system, where possible, with a return temperature of less than 45°C, to achieve the highest possible utilisation of condensing technology.

### **A heating system control unit also regulates your heating costs**

A heating system in standby mode saves energy. A modern, weather-compensated or room temperature dependent heating system control unit ensures - with automatic night setback and thermostatic valves - that the system only operates when heat is required, saving money for the rest of the time.

- Equip your heating system with a weather-compensated heating controller from the Wolf range of accessories. Your heating contractor will be happy to advise you about optimum adjustments.
- In conjunction with the Wolf control unit accessory, use the night setback function to match the energy level to the actual demand period.
- Use the optional summer mode adjustment.

### **Never overheat your home**

Adjust the room temperature as accurately as possible. This leaves occupants comfortable and energy is not wasted on providing heating output that nobody needs. Differentiate between the optimum temperature for different rooms, such as living rooms and bedrooms.

A room temperature which is one degree higher than necessary represents an additional energy consumption of approx. 6%.

- Use room thermostats to match the room temperature to the actual use of the room.
- In any room where you have installed a room temperature sensor, open the thermostatic valve fully. This enables you to achieve optimum control characteristics for your heating system.

### **Ensure adequate air circulation**

Air must be able to circulate freely near the radiators and the room temperature sensors, otherwise the heating system will lose effectiveness. Badly positioned long curtains or furniture "swallow" up to 20% of energy.

## Keep the heat inside the room - at night too

At night, closing shutters and drawing curtains noticeably reduces heat losses via the window areas. Insulating the radiator recesses and light coloured paintwork can save up to 4% off your heating bills. Airtight joints at windows and doors also help to keep energy inside the room.

## Minimise energy loss through sensible ventilation

Ventilating for hours loses heat stored in walls and objects. As a result, the room climate will only become comfortable again after prolonged heating. Short and thorough airing is more effective and pleasant.

## Venting the radiators

Regularly vent the radiators in every room. This safeguards the perfect function of radiators and thermostats, particularly in the upper apartments of apartment blocks. The radiator responds quickly to changing heat demands.

## Intelligent use of DHW circulation pumps

Always control DHW circulation pumps via time switches. Program these in accordance with your DHW demand patterns.

## DHW mode

### The optimum DHW temperature

Only ever set the DHW temperature or that of the cylinder to the temperature you really require. Any additional heating uses additional energy.

### Sensible handling of DHW

Showering consumes only approx. 1/3 of the water volume required for a bath. Repair any dripping taps immediately.

## Faults / Fault codes

If the illuminated ring of the status indicator flashes red, where possible read the fault code on the connected control unit accessory and note the code. The boiler can be restarted by pressing the reset button. In case of repeated faults, switch OFF the boiler and notify your heating contractor.

Oil condensing boilers are equipped with an electronic flue gas temperature limiter. The system automatically shuts down when the flue gas temperature exceeds 110 °C. The boiler can be restarted by pressing the reset button. If this recurs, ask your heating contractor to check the flue gas system.



**Caution - risk of damage, poisoning and suffocation!**

**Keep your operating instructions safe in an easily accessible place near your oil condensing boiler. The Velcro strip enables you to fit the clear wallet in a suitable position, for example on the side of the boiler.**