



Operating instructions

Gas condensing boilers

MGK-130

MGK-170

MGK-210

MGK-250

MGK-300



Contents	Page
Warranty / General information	2
Safety instructions	3
Installation information / Maintenance information	4
Water connections and gas supply connection	5
Control unit operation	6
Information for energy efficient operation / Faults	7-8

Warranty

Our warranty is subject to the installation being carried out by a recognised heating contractor and adherence to all operating and installation instructions.

Warranty period

Gas condensing boilers are guaranteed for 2 years.

General information

Gas is an environmentally friendly fuel that does not represent any danger unless handled with gross negligence. Your gas condensing boiler is a high grade product that incorporates the latest safety technology.



These safety instructions should protect you from potential risks.



Risk to life!

Non-observance of these references can lead to risks to individuals and the risk of material losses.



In case of risk of fire

- Immediately switch OFF the emergency stop switch of the heating system (if outside the installation room).
- Close the gas shut-off valve.
- In case of fire, use a suitable fire extinguisher.

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

- Do not operate any light switch.
- Do not operate any electrical switches.
- Keep naked flames away.
- Close the gas shut-off valve.
- Open windows and doors.
- Notify your gas supply utility; use a telephone outside of the danger area.

**Caution - risk of poisoning, suffocation and explosion!****If you smell flue gas**

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

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

- Isolate the appliance from the power supply prior to 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 use of antifreeze is not permissible. The control unit protects the gas condensing boiler against frost. The risk of frost cannot be totally prevented, e.g. during longer power failures. Therefore only install the gas condensing boiler in rooms that are free from the risk of frost. Should there be a risk of frost during longer idle periods, e.g. when the heating system is switched off, ask your local heating contractor to drain the boiler and the heating system to prevent pipes from bursting.

**Caution - risk of water damage and malfunction 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 gas 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.
- Never modify flue gas components.
- **Never close or restrict the ventilation apertures in doors or walls when operating the boiler in open flue mode; only start the boiler when the flue has been fully installed.**
- **For operation in balanced flue mode, only take the appliance into use if the balanced flue system has been fully installed and the wind protector is not covered up.**
- The gas condensing boiler may only be installed in rooms that are protected from frost.
- Never isolate the appliance from the power supply when outside temperatures fall below zero, otherwise there is a risk of the system freezing up.
- Never modify the drain or the safety valve.



Caution - failure to observe 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/or flammable materials, e.g. petrol, thinners, paints, paper etc. inside the boiler room!

Corrosion protection

Never use or store sprays, solvents, chlorinated cleaning agents, paints, adhesives, etc. in the vicinity of the gas condensing boiler. Under unfavourable conditions, these materials may lead to corrosion in the gas condensing boiler and the flue system. Ducted vents routed through a roof may also contain corrosive vapours. For that reason, maintain a sufficiently large distance to the air/flue gas terminal (minimum recommendation: 5 m).

Care

Clean the casing with a damp cloth and mild detergent.
The components inside the gas condensing boiler may only be cleaned by a heating contractor.

Service

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

- The user is responsible for arranging a regular service of the system, in order to ensure the reliable and safe function of the gas condensing boiler.
- Your gas condensing boiler should be serviced annually.
- Maintenance is explicitly detailed in the installation instructions.
- Isolate the appliance from the power supply before any maintenance work.
- After a service and before the gas condensing boiler is returned into use, check that all components that were removed for maintenance have been refitted correctly.
- We recommend you arrange a maintenance contract with an approved heating contractor.

Please observe before commissioning

Depending on your specific heating system, the safety equipment must be tested by a heating contractor.

The heating system must be completely filled with water. Subject to the boiler output and operating temperature of the heating system, the water quality for heating systems is regulated by local regulations governing "Water quality in heating systems with hot water boilers".

Observe the system pressure. If necessary top up with water.

Never use boiler water for domestic use.

Check whether the ventilation of the boiler room is ensured in accordance with local regulations.



The air supply to the boiler must not be obstructed, **otherwise there is a risk of suffocation.**

Never position objects directly on the boiler - maintain a minimum clearance of 40 cm. **Otherwise there is a high risk of fire.**

If necessary top up with water. When filling the heating system, the shut-off valves must be open.

Filling the system

Connect a water hose to the boiler drain & fill (BDF) valve and open the mains water tap. Open the BDF valve to provide a moderate flow rate and fill the heating system to approx. 1.5 bar. Check the water pressure at the pressure gauge. Vent the system. The boiler must be topped up, since heating water will only fully deaerate after several hours' heating operation. Generally leave the system full - except where there is a risk of frost. 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.



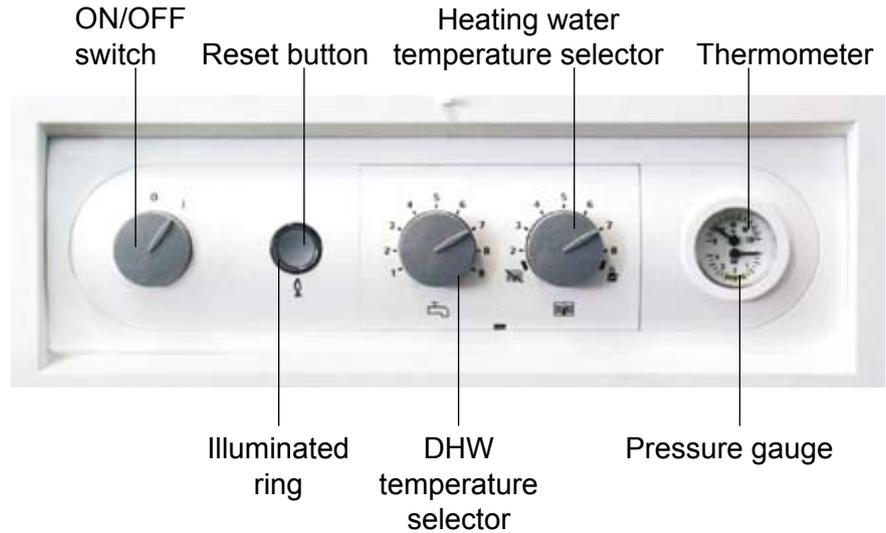
The appliance may overheat if it is operated without water.

Filling the siphon

The siphon must be fitted and filled.

Checking the water level

Regularly check the water level. The pressure gauge must indicate between 2.0 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.



Illuminated status indicator ring

Illuminated 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	(central heating OFF)
	Winter mode	Setting 2 to 8
	Emissions test mode	(indicator ring flashes yellow)
	DHW temperature selector	1 (15 °C) ... 9 (65 °C) 7 (55 °C) recommendation
	Heating water temperature selector	2 (20 °C) ... 8 (75 °C)

Note:

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



Heating mode**Saving energy with modern heating technology: gas condensing technology saves your cash**

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

Use as little electrical energy as possible

Operate your system with multi stage heating pumps at the lowest required level.

Regular heating system maintenance pays for itself

A contaminated burner or poorly adjusted appliance 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 flow temperature of less than 60 °C or a flat heating curve.

A heating system control unit also regulates your heating costs

A heating system in standby mode saves energy. With automatic night setback and thermostatic valves, a modern weather-compensated or room temperature-dependent heating system control unit ensures that the system only operates when heat is required, saving you money 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 how to achieve optimum settings.
- 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 setting.

Never overheat your system

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

A room temperature that 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 work less effectively. Badly positioned long curtains or furniture "swallow" up to 20% of your heat.

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 having 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 consumption 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 ventilation is more effective and pleasant.

Bleeding the radiators

Bleed the radiators regularly 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 status indicator ring flashes red, where possible read the fault code on the connected control unit accessory and note the code. The appliance can be returned into use by pressing the reset button. In case of repeated faults, shut down the appliance and notify your heating contractor.

Gas condensing boilers are equipped with an electronic flue gas temperature limiter. The appliance automatically shuts down when the flue gas temperature exceeds 110 °C. The boiler restarts when the reset button is pressed. If this recurs, ask your heating contractor to check the flue system.



NB - risk of damage, poisoning and suffocation work less effectively.

Keep your operating instructions safe in an easily accessible place near your gas condensing boiler.