Installation and maintenance instructions

ComfortLine
FunctionLine

Cast iron boilers up to 60 kW

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The following symbols are used in conjunction with these important instructions concerning personal safety and technical reliability.

"Safety instructions" are instructions with which you must comply exactly, to prevent injury and material losses.

Danger through "live" electrical components.
Please note: Switch OFF the ON/OFF switch before removing the casing.

Never touch electrical components or contacts when the switch is in the ON position. This creates a risk of electrocution, which may cause injury or death.

The main supply terminals are "live" even when the ON/OFF switch is in the OFF position.

Note **This indicates technical instructions which you must observe to prevent material losses and boiler malfunctions.**

In addition to the installation instructions, operating instructions and adhesive labels are included or fitted to the boiler. These must also be observed.

General

Authorised personnel should read these instructions before any installation, commissioning or maintenance work.
Adhere to the instructions given in this document.
Non-observance of these installation instructions voids any guarantee offered WOLF.

Safety instructions

- Only use qualified and trained personnel for the installation, commissioning and maintenance of the boiler.
- In accordance with DIN EN 50110-1, work on electrical components (e.g. control units) may only be carried out by qualified electricians.
- The regulations of VDE/ÖVE and those of your local electricity supplier as well as all other local regulations are applicable to electrical installation work.
- Only operate the boiler within its output range which is stated in the specification supplied by WOLF.
- Appropriate use of the boiler refers to the exclusive use for hot water heating systems in accordance with DIN 4751.
- Never remove, bypass or otherwise disable any safety or monitoring equipment.
- The boiler may only be operated in perfect technical condition. Any faults and damage which may impact on safety which might limit the safe use of the equipment must be remedied immediately by a qualified contractor.
- Only replace faulty components or equipment with original WOLF spare parts.

Standards and regulations

Observe all current Building Regulations and other local requirements.

Only recognised heating contractors may install WOLF boilers. This heating contractor will also be responsible for the proper installation and the commissioning of the heating system.

The boilers described in these installation instructions are low temperature boilers according to HeizAnlV and 92/42/EEC (Efficiency of Hot Water Boilers).

Locate the enclosed operating instructions in a clearly visible position in the boiler room.

Boilers may only be installed and operated in boiler rooms which are suitable according to the Landes-FeuVo [or local regulations].

The following regulations, rules and guidelines must be observed during installation:

- Boiler room guidelines or Building Regulations relating to the construction and installation of central boiler rooms and fuel storage facilities.
- Energy Savings Act (EnEG) and related directives (Heating Systems Order).
- DIN standards
  - DIN 1988 Technical rules for DHW installations
  - DIN 4701 Rules for calculating the heat demand of buildings
  - DIN 4751 Part 3 - Safety Equipment forheatingsystemswithflow temperatures up to 95 °C.
  - DIN 18160 Domestic chimneys
- VDE requirements:
  - VDE 0100 General information regarding the installation of HV systems with rated voltages up to 1000V.
  - VDE 0105 Operation of HV systems, general considerations.
  - VDE 0722 Electrical equipment of non-electrically heated heat generators.
  - VDE 0470/ EN 60529 Protection through housings
  - EN 60335-1 Safety of electrical equipment for domestic use and similar purposes.

Note: Please read these instructions carefully before the installation and keep them in a secure place.

Cast iron boilers
acc. to DIN EN 303 as well as in accordance with EC Directive 90/396/EEC (gas consuming equipment),
73/23/EEC (Low Voltage Directive), 89/336/EEC (EMC Directive), 92/42/EEC (Efficiency of Hot Water Boilers) and 93/68/EEC (Identification Directive) for heating systems with heating circuit pumps and flow temperatures up to 110 °C and 3 bar permissible operating pressure in accordance with DIN 4751 and DHW cylinder pressure (max. 10 bar) in accordance with DIN 4753.

For the operation with pressure jet gas burners, the following gas device categories apply:

Country abbreviation	Country	Gas device category
DE	Germany	$II_{2ELL3B/P}$
AT	Austria	$II_{2H3B/P}$
LU	Luxembourg	I_{2E} or I_{3+}

The NO_x limits required by the 1st BImSchV para. 7(2) are maintained.

Oil and gas-fired cast iron boilers, type CHK
(boiler plinth, accessory)

Oil and gas-fired cast iron boilers, type CHK-CB
incl. DHW cylinder

Oil-fired cast iron Unit boiler, type CHU
incl. pressure jet oil burner
(boiler plinth, accessory)

Oil-fired cast iron Unit boiler, type CHU-CB
incl. DHW cylinder
and pressure jet oil burner

Oil and gas-fired cast iron boilers, type FHK
(boiler plinth, accessory)

Oil and gas-fired cast iron boilers, type
FNK-FB/FE incl. DHW cylinder

Oil-fired cast iron Unit boiler, type FHU
incl. pressure jet oil burner
(boiler plinth, accessory)

Oil-fired cast iron Unit boiler, type FHU-FB/FE
incl. DHW cylinder
and pressure jet oil burner

General tips regarding location

- Install the boiler with or without the DHW cylinder on a level surface which is substantial enough to carry its weight.
- Position the boiler and DHW cylinder (if installed) horizontally or slightly rising towards the back to ensure adequate venting of any trapped air (level with adjustable feet).

Note Only install the boiler and DHW cylinder (if installed) in a room safe from the risk of frost.
Drain the boiler, the DHW cylinder and the entire heating system if there is a risk of frost, when the system has been shutdown, to prevent pipes from bursting.

Note Boilers should not be installed in areas subject to aggressive vapours, very dusty or highly humid conditions (workshops, washrooms, hobby rooms etc.). This prevents the optimum burner function from being achieved.

⚠ The combustion air supplied to the pressure jet oil burner must be free from halogenated hydrocarbons (e.g. as contained in sprays, solvents, cleaning fluids, paints and adhesives). Under the most unfavourable conditions, these may lead to pitting of the boiler and even the flue gas system.

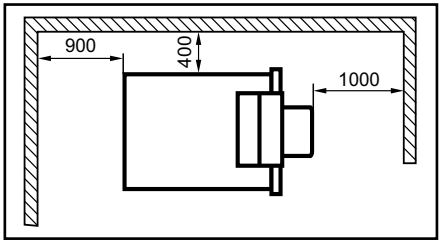
⚠ Never store or use combustible material or liquids near the boiler.

⚠ The ventilation air supply must be ensured and comply with local regulations or those relating to gas installations. We recommend that you supply the boiler with fresh air directly from the outside. An insufficient fresh air supply can lead to **fuel gas escaping, which represents a risk to life (poisoning/suffocation)**.

⚠ Clearances towards walls and combustible materials must comply with local fire regulations, and should be at least 200mm, otherwise there is a **high risk of fire**.

Recommended minimum wall clearance

Maintain a minimum clearance between the boiler sides and walls of 400 mm to enable the boiler door with fitted burner to be opened.
Ensure that sufficient space is available for cleaning and maintenance.

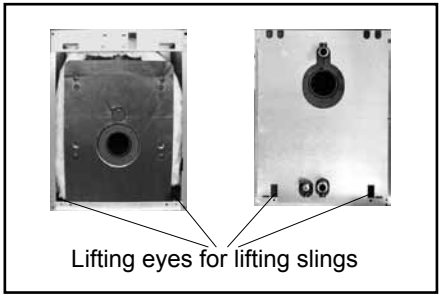


Recommended minimum wall clearance

Transportation into the boiler room

To ease the transportation into the boiler room, lifting slings with lifting hooks are offered as accessories.

Note Only lift the boiler using all four lifting slings.

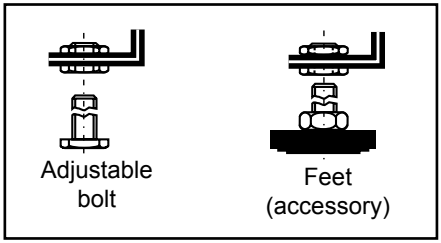


Lifting eyes for lifting slings

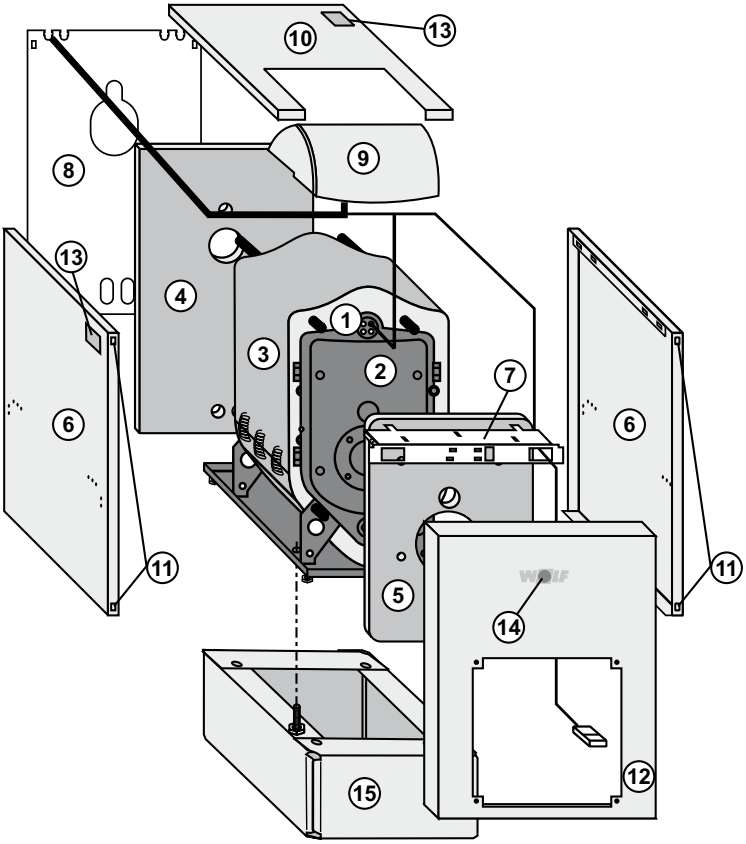
Boiler installation on adjustable feet

At the factory the boiler is equipped with four adjustable bolts

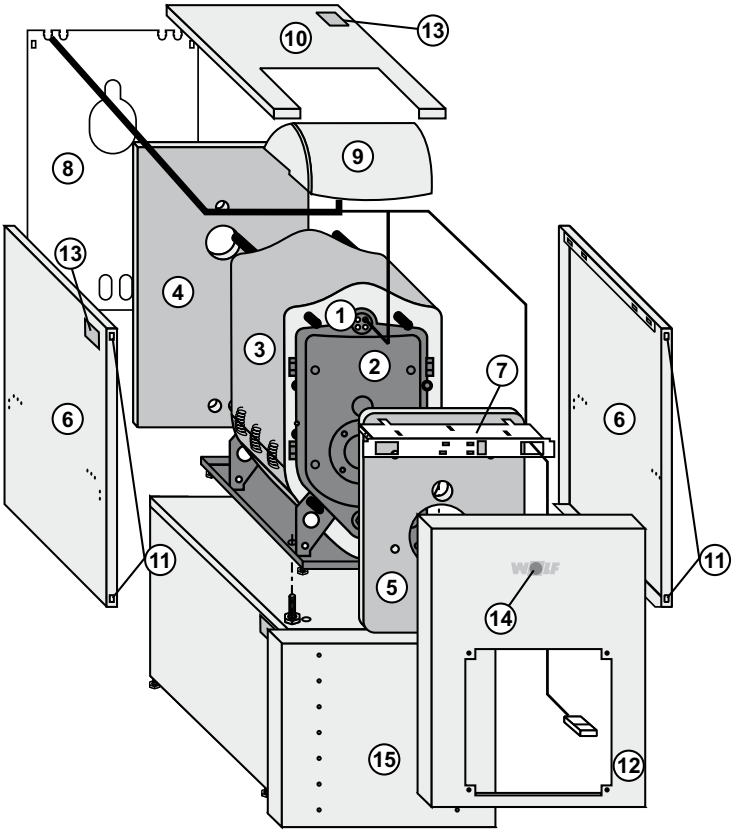
- Level the boiler with adjustable feet (accessory) horizontally or with a slight incline to the rear.



Adjustable bolt/ feet



1. Boiler
2. Boiler door
3. Thermal insulation, boiler
4. Thermal insulation, boiler back
5. Thermal insulation, boiler front
6. Side casing
7. Control unit bracket
8. Back wall casing
9. Control unit housing
10. Casing cover
11. Spring shackles
12. Front casing
13. Type plate
14. Wolf logo
15. Plinth (accessory)



1. Boiler
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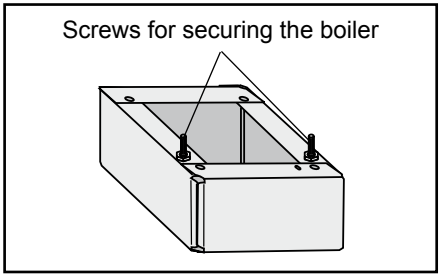
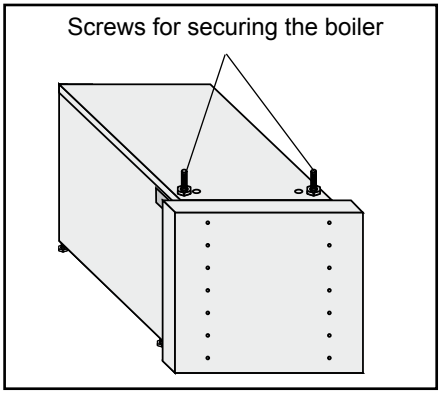
13. Type plate
14. Wolf logo
15. Horizontal DHW cylinder

① **Boiler**

- Install the plinth or the DHW cylinder in accordance with the enclosed installation instructions.
- Position the boiler with adjustable bolts fully inserted using the lifting slings on the fully assembled plinth or DHW cylinder.
- To secure the boiler to the plinth or DHW cylinder, tapped holes are provided at the front sides of the boiler. Additional fixings are not required.
- Check the horizontal level of the boiler together with the plinth and DHW cylinder and adjust, with a slight incline to the rear, if necessary.

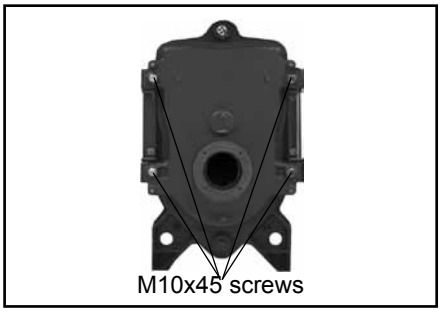


Screws for securing the boiler to the plinth



Fixing screws on the DHW cylinder

② **Secure the boiler door**
with the four M10x45 screws and washers supplied.
Insert the door hinge pins into the door bracket on the l.h. or r.h. side, subject to door opening.

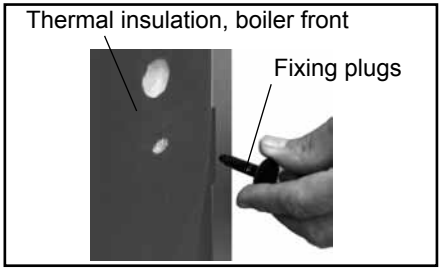


Boiler door installation

③ **Position the thermal boiler insulation**
around the boiler (overlapping) and secure with spring clips.

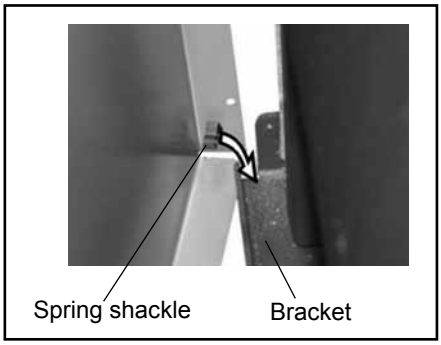
④ **Position the thermal boiler insulation for the boiler back** over the rear connections and on the back wall of the boiler.

(5) **Position the thermal insulation loosely at the boiler front**
and secure with fixing plugs (4 no.).



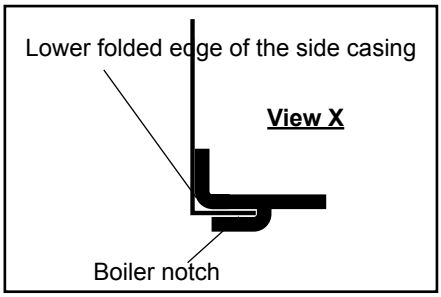
Thermal insulation, boiler front

(6) **Side casing**
into the boiler front pushing the spring clip (11) behind the boiler bracket



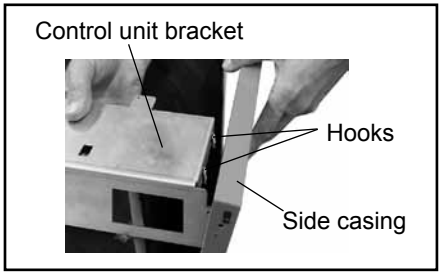
Side casing installation

and fit the lower folded edge into both notches of the boiler (view X).



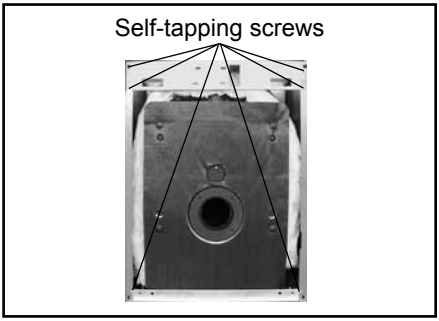
Side casing installation

(7) **Locate the control unit bracket**
centrally and push parallel forward, until both recesses in the side casing click into the control unit bracket tabs.



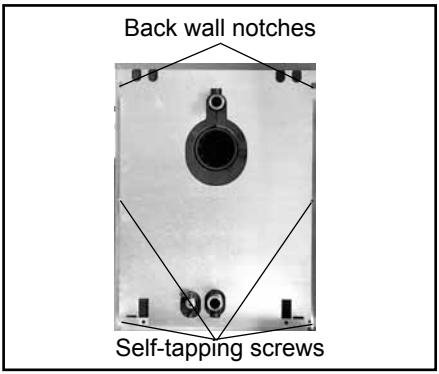
Control unit bracket installation

⑦ Secure the control unit bracket and side casing with the self-tapping screws supplied (6 no.).



Side casing fixing screws

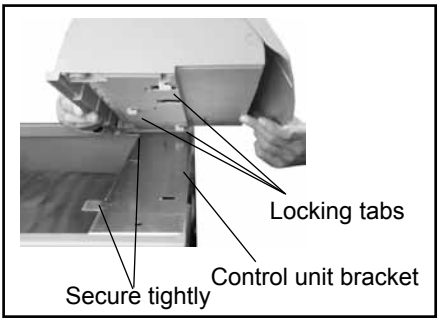
⑧ **Locate the back wall casing** with tabs into the notches in the side casing, and secure with the self-tapping screws (4 no.) supplied.



Rear wall installation

⑨ **Push the control unit housing** with locking tabs into the apertures on the control unit bracket and pull forward to its end stop. Secure the control unit housing with the two self-tapping screws supplied to the control unit at the l.h. and r.h. rear, working from top to bottom.

Route the boiler sensor to the front and push into the sensor well in any arrangement, then secure with the circlip.

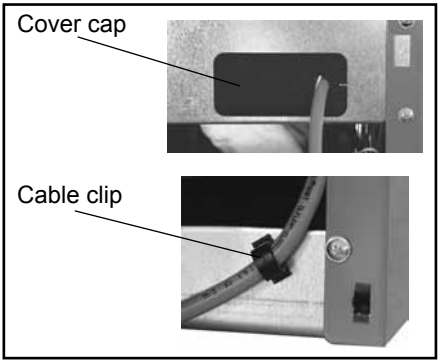


Control unit housing installation

⑨ Guide the burner cable through the aperture in the control unit bracket (l.h. or r.h. subject to boiler door opening).

Clip a cover cap into the control unit bracket to protect the burner cable.

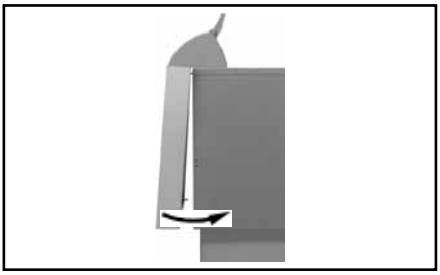
Secure the cable clip with the burner cable at the l.h. or r.h. side (bottom) of the boiler.



Burner cable holder

⑩ **Position the casing cover** onto both side casings and push towards the control unit bracket.

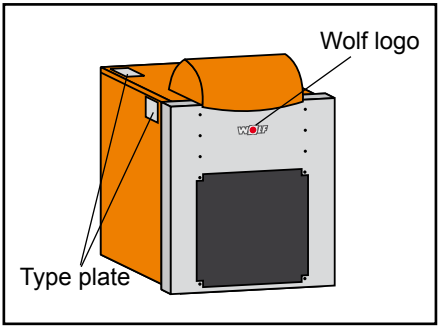
⑫ **Push the front casing** with open control unit lid with the profile screws against the **spring shackles** ⑪, until they click into place.



Front casing installation

⑬ **Affix the type plate** in a clearly visible position.

⑭ **Clip the Wolf logo** into the front casing (only for FunctionLine).

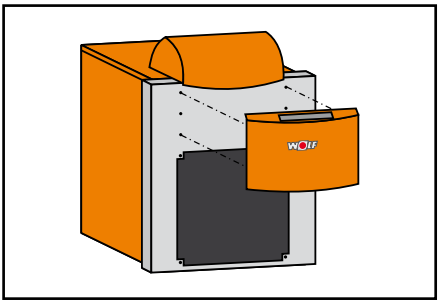


Type plate / Wolf logo

In addition, all ComfortLine boilers require the following work to be undertaken.

Decorative panel

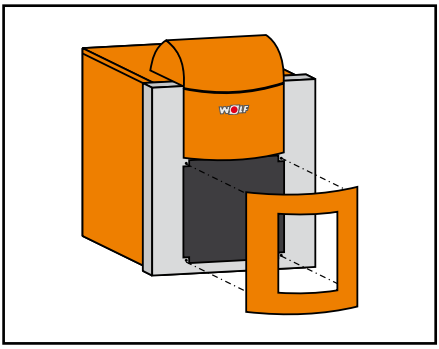
Position the decorative panel with the document wallet on the holes and push against the front casing, until the clips click into place.



Decorative panel installation

Decorative frame
(CHK 22-60 single boiler)

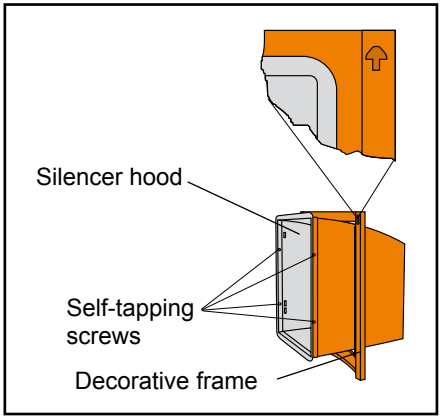
Click the plastic clips (4 no., black) into the front casing. Position the decorative frame onto the clips and push down to their end stop.



Decorative panel installation, single boiler

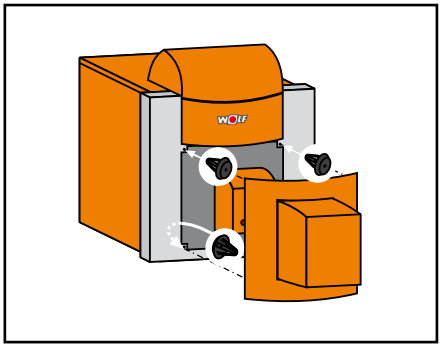
Decorative frame
(CHU 22-29 Unit boiler)

With the dome at the top, push the silencer hood into the decorative frame, then secure the silencer hood with four self-tapping screws from the inside to the decorative frame.



Joining the decorative frame and the silencer hood

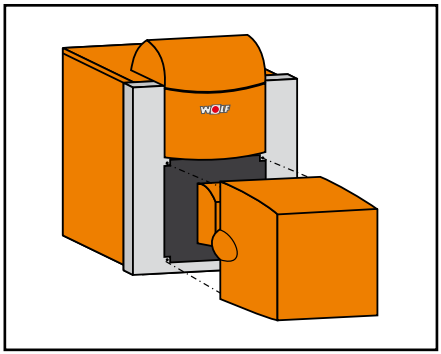
Click both top plastic clips (black) from the outside into the front casing. Click both lower plastic clips (black) from the inside into the front casing. Hook the decorative frame with the silencer hood into the top clips and secure in the lower plastic clips.



Decorative panel installation, Unit boiler

Large silencer hood
(CNU 37-60 Unit boiler)

Click the plastic clips  (4 no., orange) into the front casing. Position the large silencer hood onto the clips and push down to their end stop.

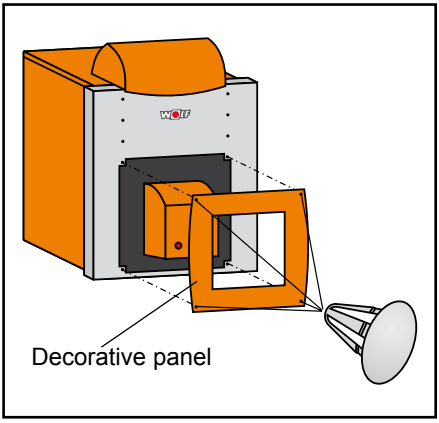


Large silencer hood installation

For models FHU-TH/22/29, the following additional work should be undertaken.

Decorative panel

Click the plastic clips  (4 no., grey) into the front casing.

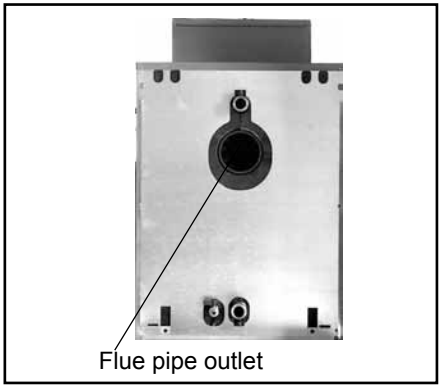


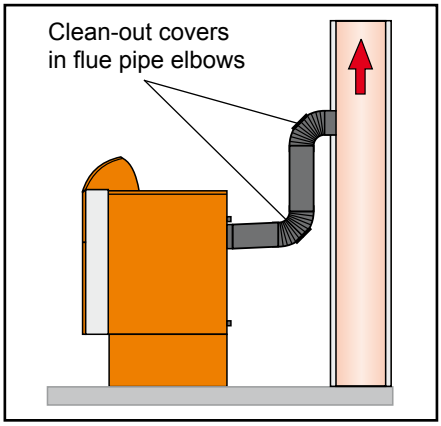
Decorative panel installation

- The flue pipe cross-section must match that of the boiler flue outlet.
- Reducing the flue pipe size is only permitted, if the satisfactory function has been verified (by calculation) in accordance with DIN 4705.

⚠ Keep the flue pipe as short as possible and inclined towards the chimney stack.

- Thoroughly seal in the flue pipe.
- Use flue pipe elbows with clean-out covers to facilitate the cleaning of the flue pipe.

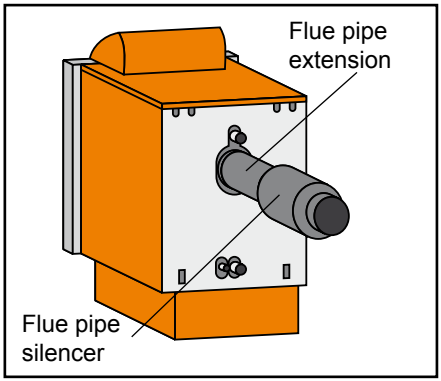




Clean-out covers

Flue pipe silencer (accessory)

Install the flue pipe silencer with flue pipe extension in accordance with the figure shown.



Flue pipe extension/silencer

Connect the heating flow and return to the respective boiler fittings. For connections, see below.
Install a check valve downstream of the boiler circuit pump(s) to prevent incorrect circulation.

⚠ Install a safety assembly comprising a safety valve with a response pressure of 3 bar and an automatic air-vent valve. The pipework between the boiler and the safety valve must not be able to be shut off. Severely excessive boiler pressure due to excessive boiler temperatures, can burst the boiler body or the boiler pipework, which would lead to a sudden excape of hot water **(risk of scalding)**.

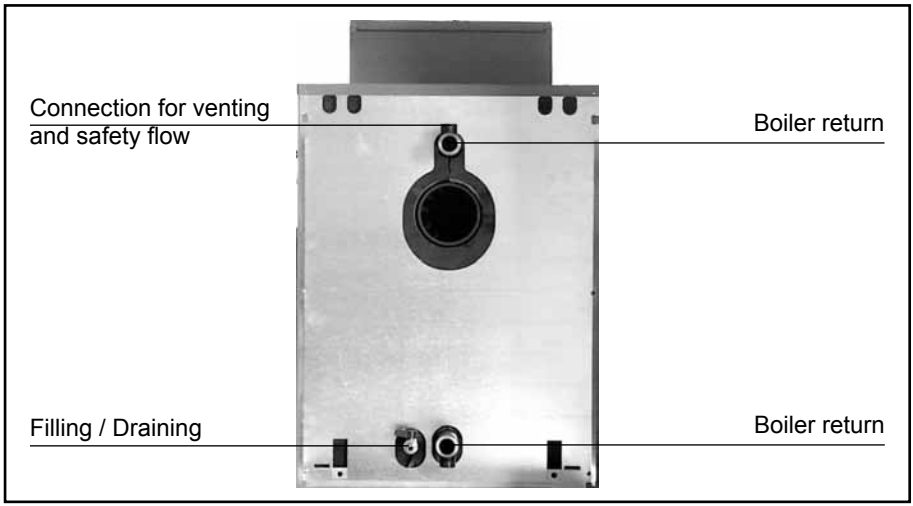
Connect any underfloor heating system via a three or four-way mixer.

Provide system separation by means of a heat exchanger, when using pipes which are not impermeable to oxygen.

Note This boiler is only suitable for heating systems with pumped heating circuits. If no heating circuit pump has been installed, sufficient circulation through the radiators cannot be ensured, putting the room heating in question.
Recommendation: Convert open systems into sealed systems.

Return temperature raising facility

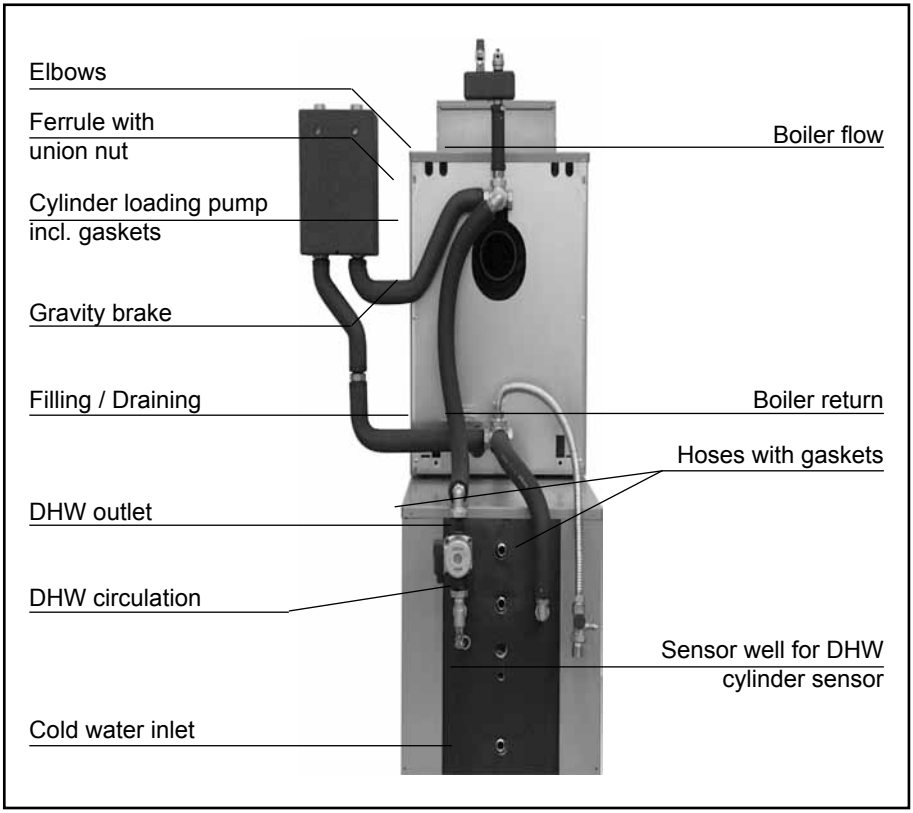
Note Heating systems with large water volume (above 20 litres per kW output) require a return temperature of 30 °C, as otherwise the longer heat-up time of such systems would create condensate and run an increased risk of boiler body corrosion.



Central heating boiler connections

Install the pipework between the boiler and the DHW cylinder in accordance with the illustration below.

Note The DHW cylinder loading pump must supply from the top to bottom.



DHW cylinder to boiler pipework

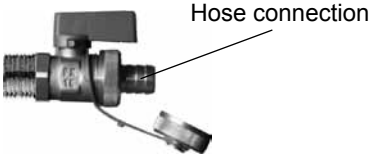
Fill the system and vent it properly to safeguard the perfect boiler function.

Note Before connecting the boiler to the heating system, flush the entire system to remove residues such as welding pearls, hemp, putty, etc. from the pipework.

Note The boiler and central heating system may only be filled, if a type-tested safety valve (opening pressure maximum 3 bar) has been installed.

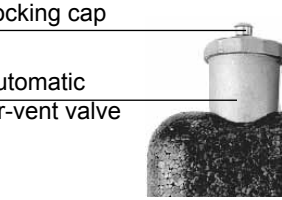
Filling the heating system

- Connect a water hose to the filling/drain valve (on-site).



Boiler fill and drain valve

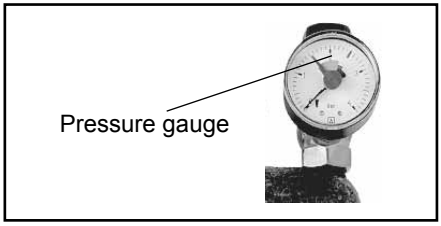
- Open the cap of the quick-action air-vent valve of the safety assembly (accessory) by one revolution, but do not remove the cap.



Automatic air-vent valve

- With the boiler in a cold condition, fill the heating system slowly via the fill and drain valve, until 1 bar pressure is indicated. Inhibitors are not permissible.

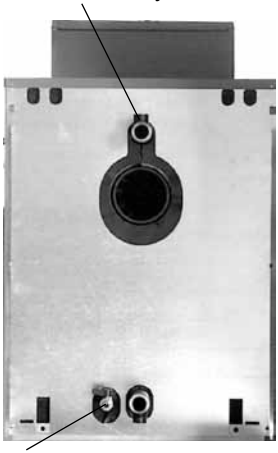
- Observe the pressure gauge of the safety equipment assembly when filling the system with water.



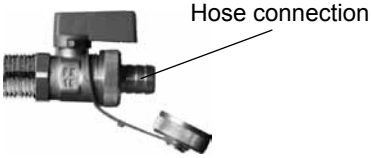
Safety assembly pressure gauge

- For boilers with DHW cylinder, vent the heating coil at a system pressure of approximately 0.50 bar or less by starting the DHW cylinder loading pump (operating time approximately 2 minutes).
- Check the entire system for water leaks.
- Check the safety valve function.
- Ventilate the boiler (e.g. via an automatic air-vent valve).
- Fill the system to 1 bar pressure.
  In operation, the pressure gauge must indicate between 1 and 2.5 bar.
- Top up with water when the system pressure falls severely.
- In constant mode, the boiler automatically vents via the air-vent valve.

- Switch OFF the heating system (see operating instructions) and let it cool down to a maximum of 40 °C, **to prevent the risk of scalding.**
- Open the drain tap on the boiler.
- Open the radiator bleed valves.
- Drain the heating water off.



Draining the heating system

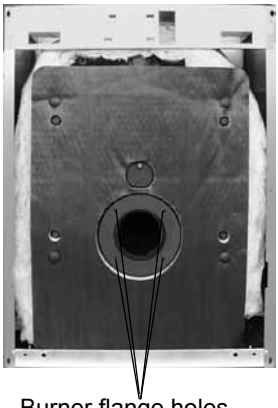


Boiler fill and drain valve

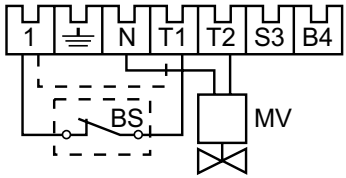
Pressure jet oil burner installation

The Unit pressure jet oil burner installation instructions are included in the burner packaging.

⚠ Only use bolts when securing the burner to the boiler flange, whose thread penetrates the boiler flange by a maximum of 15 mm. Only use pressure jet gas burners compliant with EC Directive 90/396/EEC.



Boiler flange



Burner plug wiring diagram

Electrical supply

Note Do not route sensor leads with 230 V mains cables.

Connect the heating circuit pump(s) and the DHW cylinder loading pump(s) on-site via contactor, if:

- The burner and pump draw more than 2 A each.
- The total control unit power consumption is exceeded.

Observe the control unit installation and operating instructions.

Electrical supply

Only qualified personnel may carry out the commissioning and operation of the boiler and the instruction of the user.

- Check the boiler and system for leaks. Close the water outlet - **danger of overheating and scalding.**
- Check that all flue gas accessories have been correctly installed.
- Open the shut-off valves on flow and return.
- Switch ON the system ON/OFF switch on the control unit.
  Note:
  When the heating system is started, the display of the weather-compensated control unit indicates all superfluous (not connected) sensors as fault messages. For removing these fault messages see the control unit operating instructions.
- If the system water pressure falls below 1.0 bar, top up with water until a pressure of 1.0 to max. 2.5 bar has been achieved.
- An error code will flash in the display, if the boiler/burner fails to start properly. For details about error codes see the quick-start operating instructions.
- Instruct the customer in the operation of the boiler. Complete the commissioning log and hand over the instructions.
- Position the operating instructions in the boiler room where they are clearly visible.

Function checks

- During commissioning, check all control, regulating and safety equipment for their correct function and settings.

Saving energy

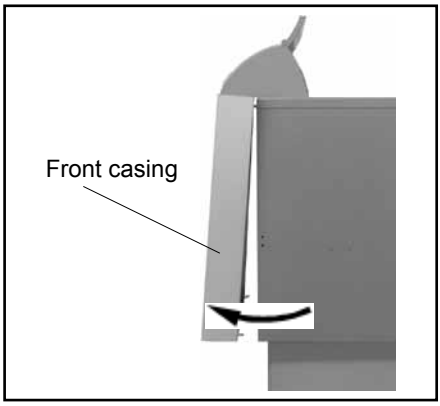
- Instruct the customer about energy-savings options.
- Use this opportunity for reducing the heating temperature night operation using control accessories.
- Adjust the temperature so you are comfortable; every degree of room temperature reduction will achieve energy savings of up to 5%.
- Reduce the room temperature in unoccupied rooms as far as possible; please observe frost protection.
- Ensure that all thermostatic radiator valves are fully opened in rooms where room thermostats are installed.
  The room thermostat must not be obstructed by furniture or curtains.

Commissioning steps	Test values and confirmation
1.) Water connections checked for leaks?	☐
2.) Vented boiler and system?	☐
3.) System pressure 1 - 2.5 bar?	☐
4.) Function test carried out?	☐
5.) Flue gas test:	☐
Gross flue gas temperature	_____ t_A [°C]
Ventilation air temperature	_____ t_L [°C]
Net flue gas temperature	_____(t_A - t_L) [°C]
Carbon dioxide content (CO_2) or oxygen content (O_2)	_____ %
Carbon monoxide content (CO), free of air	_____ ppm
6.) Casing fitted?	☐
7.) System user trained, technical documents handed over?	☐
8.) Confirm commissioning	☐

Note:
To ensure the reliable and safe function of a heating system, users are required to have it checked and cleaned on an annual basis by an approved heating contractor (check local regulations). Switch OFF the boiler when cleaning the boiler room.

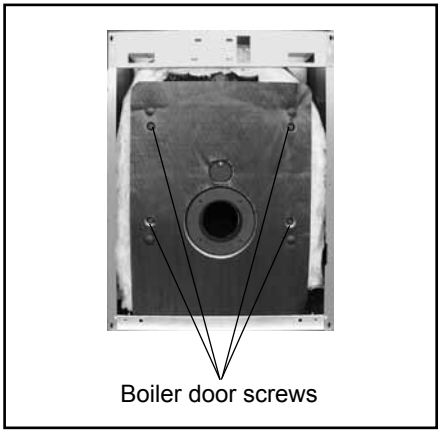
We would recommend a maintenance contract.

- Switch OFF the heating system (see operating instructions) and let it cool down.
- Remove the front casing from the boiler.



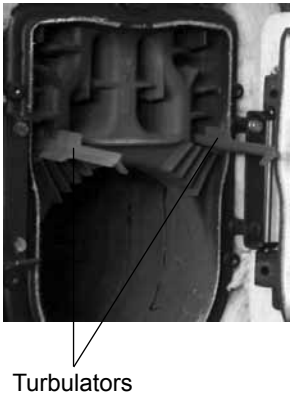
Front casing removal

- Pull the burner plug.
- Release the boiler door screws.



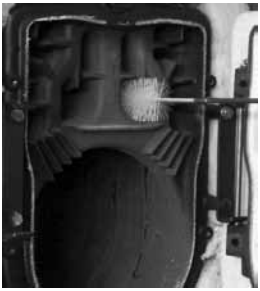
Boiler door removal

- Open the boiler door.
- Pull out the turbulators.



Pulling out the turbulators

- Remove soot/sulphur deposits with the cleaning brush supplied.



Cleaning using the cleaning brush

- Assemble in reverse order.

- Please tick the maintenance steps carried out and enter the test values into this log.

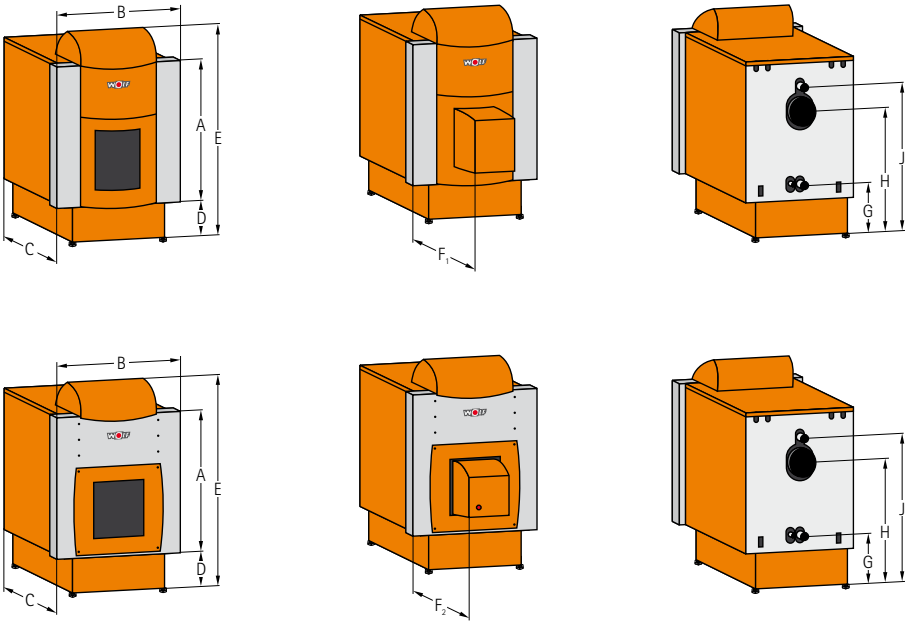
Maintenance steps		Date	Date
1.	Cleaned the boiler?	☐	☐
2.	Leak test carried out during operation?	☐	☐
3.	Function test carried out?	☐	☐
4.	Flue gas test:	☐	☐
	Gross flue gas temperature	t_A [°C] _____	t_A [°C] _____
	Ventilation air temperature	t_L [°C] _____	t_L [°C] _____
	Net flue gas temperature	(t_A - t_L) [°C]____	(t_A - t_L) [°C]____
	Carbon dioxide content (CO_2) or	% _____	% _____
	Oxygen content (O_2)	% _____	% _____
	Carbon monoxide content (CO), free of air	ppm _____	ppm _____
5.	Confirm maintenance (company stamp, signature)	☐	☐

Date	Date	Date	Date
☐	☐	☐	☐
☐	☐	☐	☐
☐	☐	☐	☐
☐ t_A [°C] _____ t_L [°C] _____ (t_A - t_L) [°C]____ % _____ % _____ ppm _____	☐ t_A [°C] _____ t_L [°C] _____ (t_A - t_L) [°C]____ % _____ % _____ ppm _____	☐ t_A [°C] _____ t_L [°C] _____ (t_A - t_L) [°C]____ % _____ % _____ ppm _____	☐ t_A [°C] _____ t_L [°C] _____ (t_A - t_L) [°C]____ % _____ % _____ ppm _____
☐	☐	☐	☐

CHK / FHK / CNU-Premio / CHU-TH / FHU-TH		22	22
CHK-CB / FHK-FB / FHK-FE / CHU-Premio-CB CHU-TH-CB / FHU-TH-FB / FHU-TH-FE		22/155	22/200
Output rangeexcl. burner, incl. TH burner	kW	15-221	5-22
incl. Premio burner	kW	19-22	19-22
Set-up burner output	kW	21	21
DHW cylinder capacity CB & FB / FE	litres	155/150	200
Constant DHW cylinder output CB & FB	litres/h	540	540
FE	litres/h	540	540
Performance factorCB & FB	NL60	2.8	4.4
FE	NL60	2.8	4.1
Number of boiler sections		3	3
Water content	litres	29	29
Boiler gas content	litres	33	33
Heating water pressure drop (at ΔT=20K)	mbar	2	2
Maximum permissible boiler pressure	bar	4	4
Maximum permissible DHW cylinder pressure	bar	10	10
Rel. standby losses Boiler	%	1.15	1.15
Boiler+DHW cylinder	%	1.7	1.9
Required boiler draught	Pa	10	10
Flue gas temperature*	° C	130/170	130/170
Flue gas mass flow rate*	kg/h	25/37	25/37
Boiler, safety flow	(female thread) Rp	1¼“	1¼“
Boiler return	(female thread) Rp	1¼“	1¼“
Filling, draining, safety return	(female thread) Rp	½“	½“
Flue pipe diameter	mm	129	129
Combustion chamber depth	mm	350	350
Combustion chamber diameter	mm	290	290
Weight Boiler	kg	167	167
Burner	kg	10	10
CHW cylinder CB and FB	kg	66	83
DHW cylinder FE	kg	98	121
Electrical supply			
Maximum current (control unit and accessories)			
Maximum current (in total, excluding pumps)			
Switching capacity pumps, mixer, burner			
Control unit fuse (maximum current)			
Optional connection for mixer motors			

***** Values for upper/lower boiler output, relative to a CO_2 content of 13 % (fuel oil EL) and an average boiler water temperature of 60 °C. The chimney stack dimensions must be calculated in accordance with DIN 4705. For flue gas temperatures below 160 °C, connect the boiler to highly insulated chimney stacks (heat conductivity resistance class I acc. to DIN 18160 T1) or suitable, moisture-resistant flue gas systems, which have been type-approved.

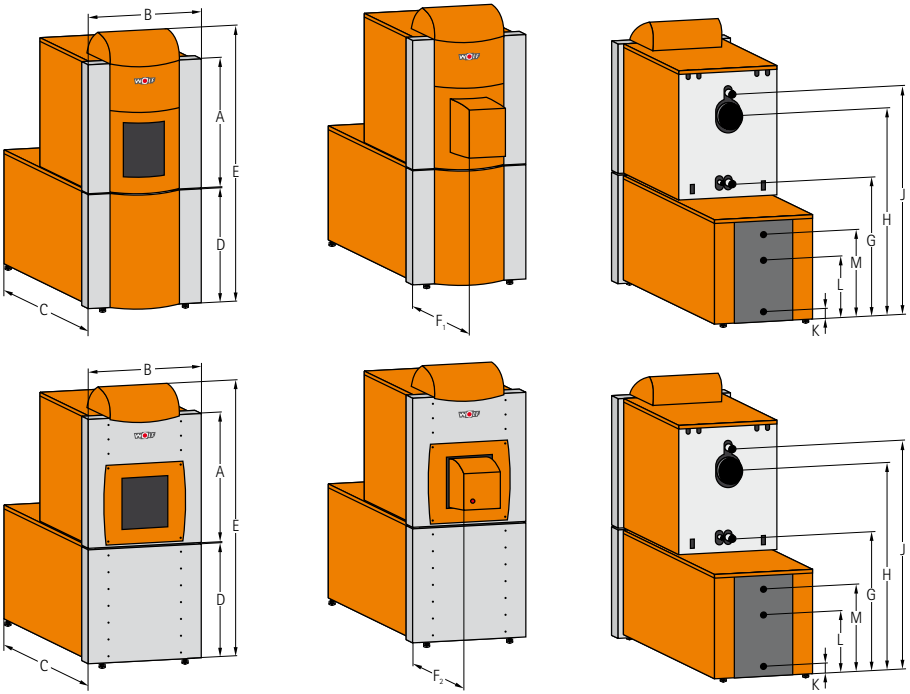
29 29/155	29 29/200	37 37/200	45 45/200	60 60/200
22-29	22-29	29-37	37-45	48-60
25-29	25-29	29-37	37-45	48-59
27	27	34	41	55
155/150	200	200	200	200
710	710	910	1100	1225
710	710	910	940	940
3.1	4.6	4.8	4.9	5.0
3.1	4.3	4.5	4.5	4.5
4	4	5	6	8
35	35	41	47	59
43	43	53	63	83
4	4	6	8	14
4	4	4	4	4
10	10	10	10	10
1.05	1.05	0.95	0.85	0.7
1.6	1.8	1.6	1.4	1.2
13	13	16	19	0
140/170	140/170	150/170	150/170	155/175
37/49	37/49	49/62	62/75	80/100
1¼“	1¼“	1¼“	1¼“	1¼“
1¼“	1¼“	1¼“	1¼“	1¼“
½“	½“	½“	½“	½“
129	129	149	149	149
450	450	550	650	850
290	290	290	290	290
198	198	229	260	322
10	10	15.5	15.5	15.5
66	83	83	83	83
98	121	121	121	121
230 V / 50 Hz / 10A				
5 VA				
15 VA				
230 V, 4(2) A each				
M 6.3 A				
230V, 50Hz, optimum time 4 - 7 minutes				



CHK / FHK / CHU-Premio CHU-TH / FHU-TH			22	29	37	45	60
Boiler height	A	mm	835	835	835	835	835
Width	B	mm	660	660	660	660	660
Length	C	mm	640	740	840	940	1040
Plinth height	D	mm	280	280	280	280	280
Overall height incl. control unit	E	mm	1280	1280	1280	1280	1280
Silencer hood depth	F_1	mm	336	336	345	345	345
Burner hood depth	F_2	mm	235	235	235	260	275
Central heating return	G	mm	397	397	397	397	397
Smoke tube connector	H	mm	859	859	859	859	859
Central heating flow	J	mm	997	997	997	997	997

Observe the height of adjustable feet/bolts 20 mm ±10mm.

Dimensions



CHK-CB / FHK-FB / FHK-FE / CHU-Premio-CB CHU-TH-CB / FHU-FB / FHU-FE			37	45	60	45	60
Boiler height	A	mm	835	835	835	835	835
Width	B	mm	660	660	660	660	660
Length of 155 l DHW cylinder	C	mm	987	987	-	-	-
Length of 200 l DHW cylinder	C	mm	1262	1262	1262	1262	1262
DHW cylinder height	D	mm	625	625	625	625	625
Overall height incl. control unit	E	mm	1625	1625	1625	1625	1625
Silencer hood depth	F1	mm	336	336	345	345	345
Burner hood depth	F2	mm	235	235	235	260	275
Central heating return	G	mm	742	742	742	742	742
Smoke tube connector	H	mm	1204	1204	1204	1204	1204
Central heating flow	J	mm	1342	1342	1342	1342	1342
Cold water inlet	K	mm	90	90	90	90	90
CB/FB DHW circulation	L	mm	412	412	412	412	412
FE DHW circulation	L	mm	312	312	312	312	312
DHW connection	M	mm	534	534	534	534	534

Observe the height of adjustable feet/bolts 20 mm ±10mm.

Fault	Cause	Remedy
Burner does not start or enters a fault state	No voltage present at the control unit	Fuse, electrical connections, Check the position of the ON/ OFF switch and heating sys. emergency stop switch.
	Oil tank empty / Gas supply line shut off	Fill oil tank / Open gas supply line.
	Burner fault	Press the reset button at burner control unit (see burner installation instructions)
	Safety temperature control cut-out activated	Press the reset button at the unit.
	Oil filter clogged	Replace oil filter.
Heating circuit pump does not start	System in summer mode	Check summer/winter switch position.
	Heating circuit pump locked up	Turn the pump shaft with a screwdriver.
	Heating circuit pump faulty	Replace the heating circuit pump.
Cylinder loading pump does not run	DHW cylinder thermostat faulty	Check DHW cylinder thermostat and replace, if necessary.
	Cylinder loading pump seized up	Turn the pump shaft with a screwdriver.
	Cylinder loading pump faulty	Replace the DHW loading pump.
Heating system operational, but room temperature too low	Adjust maximum boiler temperature set too low.	Raise maximum boiler temperature.
Heat-up takes too long	Heating water temperature too low (check at DHW cylinder flow, not at the boiler)	Raise the temperature (adjust thermostat)
	Too little heating water (creates wider spread, i.e. return temperature too low)	Install larger DHW cylinder loading pump
	Indirect coil not vented	Vent indirect coil with loading pump OFF
	Indirect coil scaled up	Descale indirect coil
DHW temperature too low	Thermostat switches OFF too soon	Adjust thermostat
	Return temperature too low (e.g. spread too wide)	Return temperature too low (e.g. spread too wide)