



Optimax HE Boilers

SEDBUK 'A' high efficiency condensing boilers Combi, system and regular open vented models 18kW – 38kW models





Feroli 5 YEAR PARTS & LABOUR GUARANTEE on all Optimax HE models

- More power, higher efficiency
- Easy to install
- User-friendly control panel
- Proven technology for greater reliability
- Super quiet operation
- Integral filling loop (combi only)
- Built-in automatic bypass

Terms and conditions apply, please contact Ferroli for more details



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Ferroli

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Why is it new?

- At Ferroli our motto is 'making life easier'. So we planned to upgrade our existing best-selling Band A Optimax range to make it even better
- We started by listening to our customers. We listened to merchants, installers, and specifiers for comments both good and bad about our proven range
- It was clear that the Optimax was well respected but that we could make a number of detail improvements to make life easier
- So we did

What's new?

- Stylish boiler casing with an integral fascia
- Re-designed internal water group assembly to include a built-in automatic bypass valve
- Integral filling loop that forms part of the boiler valve assembly (combi)
- 3 Amp fused three pin plug for simple electrical connection
- New Optimax HE range of outputs:
 - 31kW and 38kW combi models
 - 18kW, 25kW and 31kW system models
 - 18kW regular open vented model
- All models available in both natural gas and LPG versions
- All new boiler control system and liquid crystal display
- Option of a plug-in seven day digital timer (combi)
- OpenTherm compliant ready for our Romeo controller
- Built-in outside weather compensation software (combi)

Benefits to you

- For the merchant : one range satisfies all your Band A needs
- For the installer : easiest ever to install; easy access for installation and servicing
- For the user : more power and higher efficiency from a more compact unit; super quiet operation; proven technology for greater reliability; 5 year parts and labour guarantee





Optimax HE Combi

31kW and 38kW models



Features and benefits

- · Engineered to produce more power and higher efficiency
- Choice of 31kW or 38kW combi models to give higher DHW flow rates
- 31kW model produces an impressive 12.6 l/min flow rate at 35°C rise
- 38kW model produces an unbeatable 15.4 l/min flow rate at 35°C rise
- · Compatible with our AquaSol solar system
- · Compatible with our underfloor heating system
- New Italian-styled casing design
- High-density foam lining absorbs almost all operational sounds, making it extremely quiet during normal operation
- Built-in bypass speeds up installation and ensures the minimum flow rate through the heat exchanger at all times
- Integral filling loop that forms part of the boiler valve assembly
- 3 Amp fused three pin plug for simple electrical connection
- All models available in both natural gas and LPG versions
- All new boiler control system and liquid crystal display
- · Option of a plug-in seven day digital timer
- · Built-in outside weather compensation software
- Optional pre-plumb jig also available Product Code 046006G0
- 5 year manufacturer's parts and labour guarantee



LCD diagnostic boiler fascia panel

Optimax HE combi controls

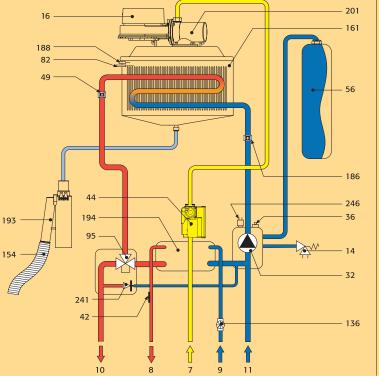
- Liquid crystal display for simple user operation
- Full diagnostic software ensures optimum reliability
- · Option of a plug-in seven day digital timer
- OpenTherm compliant ready for optional Romeo controller which modulates the room temperature by altering the boiler output ensuring maximum efficiency
- Option of outside weather compensation sensor. The Optimax HE microprocessor compares external and internal temperatures and increases or decreases the flow temperature accordingly, maximising efficiency
- Optional RF unit available





Optimax HE combi

WATER CIRCUIT DIAGRAM



1. PRE-MIX FAN ASSEMBLY

The 24 volt pre-mix fan is extremely quiet in operation and in conjunction with our down-firing ceramic burner ensures the most efficient process of combustion possible.

2. CERAMIC PLAQUE BURNER

Unlike many condensing appliances the **Optimax** allows viewing of the flame through a conveniently positioned window within the combustion cover. The Ceramic Plaque Burner provides the optimum in clean burn technology, ultra-quiet with spark generated ignition, which being an extremely reliable and proven system gives peace of mind for the end user.

3. CLIP-ON SENSORS

Negative Temperature Co-efficient sensors (NTC) are dry clip-on style. This helps to prevent premature failure from system contamination. In the unlikely event of a sensor failure, they can easily be changed without draining down the boiler.

4. ALUMINIUM HEAT EXCHANGER

Designed and built within our "State of the Art" research and development department in San Bonifacio, Northern Italy. This aluminium heat exchanger ensures proven reliability and energy efficiency in conjunction with standard heating system design. (Typical flow and return temperature differential of 15°C.)

5. GRUNDFOS PUMP

A Grundfos pump is used to ensure reliable delivery of hot water and heating.

6. STAINLESS STEEL DHW PLATE HEAT EXCHANGER (COMBI MODELS ONLY)

The Stainless Steel plate heat exchanger is guaranteed for 5 years against scale build up; it allows a hot water flow rate of 15.4 litres per minute at 35°C for the **Optimax HE 38C**.

7. MULTIFUNCTIONAL USER INTERFACE

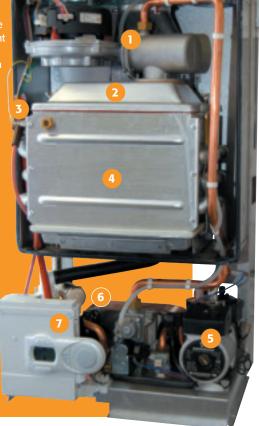
All **Optimax** boilers are fitted with a multifunctional, simple to use interface with installer programming access.

KEY 7

Gas inlet

- 8 DHW outlet
- 9 Cold main inlet
- 10 CH flow
- 11 CH return
- 14 Heating safety valve16 Premix fan assembly
- 32 Heating pump
- 36 Automatic air vent
- 42 DHW temperature sensor
- 44 Gas valve
- 49 Overheat protection and heat sensor
- 56 Expansion vessel
- 82 Ionisation probe
- 95 Motorised diverter
- 136 Flow meter
- 154 Condensate outlet pipe
 - 161 Heat exchanger
 - 186 Return sensor
 - 188 Ignition probe
 - 193 Condensate trap
 - 194 Domestic plate heat exchanger
 - 201 Fan venturi
 - 241 Automatic bypass
 - 246 System pressure sensor

Note: This numbering system is consistent with the installation manual.





Optimax HE System 18kW, 25kW and 31kW models



Features and benefits

- Engineered to produce more power and higher efficiency
- · Choice of 18kW, 25kW or 31kW system models ideal for most homes
- Compatible with our AquaCyl cylinder range
- Compatible with our underfloor heating system
- New Italian-styled casing design
- High-density foam lining absorbs almost all operational sounds, making it extremely quiet during normal operation
- Built-in bypass speeds up installation and ensures the minimum flow rate through the heat exchanger at all times
- 3 Amp fused three pin plug for simple electrical connection
- · Factory-fitted expansion vessel and heating pump
- All models available in both natural gas and LPG versions
- All new boiler control system and liquid crystal display
- Optional pre-plumb jig also available for 25 S and 31 S models Product Code 046006G0
- 5 year manufacturer's parts and labour guarantee



Optimax HE System controls • Liquid crystal display for simple user operation

- Full diagnostic software ensures optimum reliability
- Suitable for Y plan or S plan fully pumped heating systems

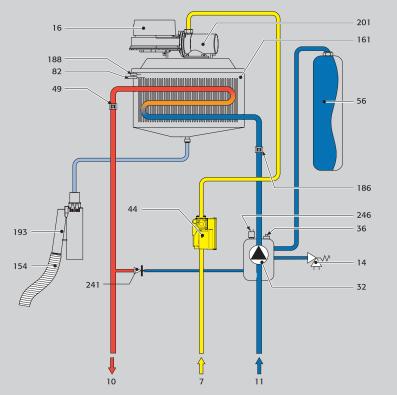
LCD diagnostic boiler fascia panel





Optimax HE System

WATER CIRCUIT DIAGRAM



KEY 7

- Gas inlet
- 10 CH flow
- CH return 11
- Heating safety valve 14
- 16 Premix fan assembly
- 32 Heating pump
- 36 Automatic air vent
- 44 Gas valve
- 49 Overheat protection and heat sensor
- 56 Expansion vessel
- 82 Ionisation probe
- Condensate outlet pipe 154
- 161 Heat exchanger
- 186 Return sensor
- 188 Ignition probe
- 193 Condensate trap
- 201 Fan venturi
- 241 Automatic bypass
- 246 System pressure sensor

Note: This numbering system is consistent with the installation manual.

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PRE-MIX FAN ASSEMBLY

The 24 volt pre-mix fan is extremely quiet in operation and in conjunction with our down-firing ceramic burner ensures the most efficient process of

CERAMIC PLAQUE BURNER

CERAMIC PLAQUE BURNER Unlike many condensing appliances the **Optimax** allows viewing of the flame through a conveniently positioned window within the combustion cover. The Ceramic Plaque Burner provides the optimum in clean burn technology, ultra-quiet with spark generated ignition, which being an extremely reliable and proven system gives peace of mind for the end user.

CLIP-ON SENSORS

(NTC) are dry clip-on style. This helps to prevent premature failure from system

sensor failure, they can easily be changed without draining down the boiler.

ALUMINIUM HEAT EXCHANGER

Designed and built within our "State of the Art" research and development department in San Bonifacio, Northern Italy. This aluminium heat exchanger ensures proven reliability and energy efficiency in conjunction with standard heating system design. (Typical flow and return temperature differential of 15°C.)

GRUNDFOS PUMP

A Grundfos pump is used to ensure reliable delivery of hot water and heating.

MULTIFUNCTIONAL USER INTERFACE

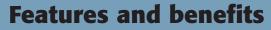
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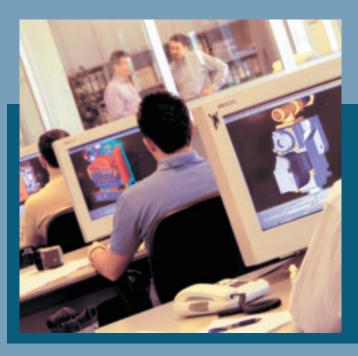
Optimax HE 18 OV (regular open **vented**)

18kW model





- Engineered to produce more power and higher efficiency
- Compatible with our underfloor heating system
- New Italian-styled casing design
- High-density foam lining absorbs almost all operational sounds, making it extremely quiet during normal operation
- Built-in bypass speeds up installation and ensures the minimum flow rate through the heat exchanger at all times
- 3 Amp fused three pin plug for simple electrical connection
- Available in both natural gas and LPG versions
- All new boiler control system and liquid crystal display
- 5 year manufacturer's parts and labour guarantee



Ferroli

Optimax HE 18 OV regular open vented model

• At the time of going to press with this brochure the new Optimax HE 18 OV is in the final stages of field trials after months of research and development.





Optimax 25 OV (regular open vented)

25kW model



Features and benefits

- 25kW OV model
- Engineered for maximum efficiency
- Available in both natural gas and LPG versions
- For use with existing installations
- Compact design for easy siting
- Lightweight easy one person lift
- Top outlet tappings for easy installation
- · Easy access for installation and servicing
- 2 year manufacturer's parts and labour guarantee

1. PRE-MIX FAN ASSEMBLY

The 24 volt pre-mix fan is extremely quiet in operation and in conjunction with our down-firing ceramic burner ensures the most efficient process of combustion possible.

2. CERAMIC PLAQUE BURNER

Unlike many condensing appliances the **Optimax** allows viewing of the flame through a conveniently positioned window within the combustion cover. The Ceramic Plaque Burner provides the optimum in clean burn technology, ultra-quiet with spark generated ignition, which being an extremely reliable and proven system gives peace of mind for the end user.

3. CLIP-ON SENSORS

Negative Temperature Co-efficient sensors (NTC) are dry clip-on style. This helps to prevent premature failure from system contamination. In the unlikely event of a sensor failure, they can easily be changed without draining down the boiler.

4. ALUMINIUM HEAT EXCHANGER

Designed and built within our "State of the Art" research and development department in San Bonifacio, Northern Italy. This aluminium heat exchanger ensures proven reliability and energy efficiency in conjunction with standard heating system design. (Typical flow and return temperature differential of 15°C.)

5. MULTIFUNCTIONAL USER INTERFACE Fitted with a multifunctional, simple to use interface with installer programming access.



Technical Specifications

Optimax		COMBI SYSTEM			OPEN VENTED			
•Punta		31 C	38 C	18 S	25 S	31 S	18 OV	25 OV
Output max/min Heat input Useful heat output 80°C - 60°C Useful heat output 50°C - 30°C	kW kW kW	25.2/5.3 24.6/5.2 26.6/5.7	30.8/6.5 30.2/6.3 32.5/6.9	18.0/3.0 17.7/2.9 19.0/3.2	25.2/5.3 24.6/5.2 26.6/5.7	30.8/6.5 30.2/6.3 32.5/6.9	18.0/3.0 17.7/2.9 19.0/3.2	28.0/8.3 24.7/7.3 26.4/8.0
Central heating Maximum operating temperature Operating pressure central heating Maximum Minimum Expansion vessel capacity Expansion vessel pre-fill pressure	°C bar bar litres bar	95 3 0.8 7 1	95 3 0.8 9 1	95 3 0.8 7 1	95 3 0.8 7 1	95 3 0.8 7	85 3 0.3 N/A N/A	80 3 0.1 N/A N/A
Boiler water content	litres	1.5	2.0	1.0	1.5	1.5	1.0	N/A N/A
DHW DHW output max/min Maximum DHW production $\Delta t 25^{\circ}C$ $\Delta t 30^{\circ}C$ $\Delta t 35^{\circ}C$ Operating pressure DHW Maximum DHW water content Dimensions, weights, fittings Height Width Depth Weight (empty) Gas fitting Central heating fittings DHW circuit fittings	kW I/min I/min bar bar litres mm mm kg mm mm mm	30.8/5.2 17.6 14.7 12.6 9 0.25 0.3 700 400 330 39 22 22 22 15	37.7/6.3 21.6 18.0 15.4 9 0.25 0.5 700 450 330 45 22 22 22 15	N/A N/A N/A N/A N/A N/A 700 320 300 37 22 22 N/A	N/A N/A N/A N/A N/A N/A 700 400 330 37 22 22 22 N/A	N/A N/A N/A N/A N/A N/A 700 450 330 450 330 43 22 22 N/A	N/A N/A N/A N/A N/A N/A 630 320 280 19 22 22 N/A	N/A N/A N/A N/A N/A N/A 582 400 306 34 22 22 N/A
Power supply Max power input Power supply voltage/frequency Index of protection	W V/Hz IP	135 230V/ IPX		120	120 230V/50Hz IPX5D	130	50 230V, IPX5D	50 /50Hz IPX4D
Maximum permissible flue lengths Max horizontal flue length 60/100mm Ø Max vertical flue length 60/100mm Ø Max horizontal flue length 80/125mm Ø Max vertical flue length 80/125mm Ø Total equivalent length two pipe 80mm Ø	m m m m	5 6 15 16 75	5 6 15 16 55	5 6 15 16 95	5 6 15 16 95	5 6 15 16 55	5 6 15 16 75	5 6 15 16 75
SEDBUK SAP efficiency	%	90.4	90.4	90.4	90.4	90.4	90.4	90.4

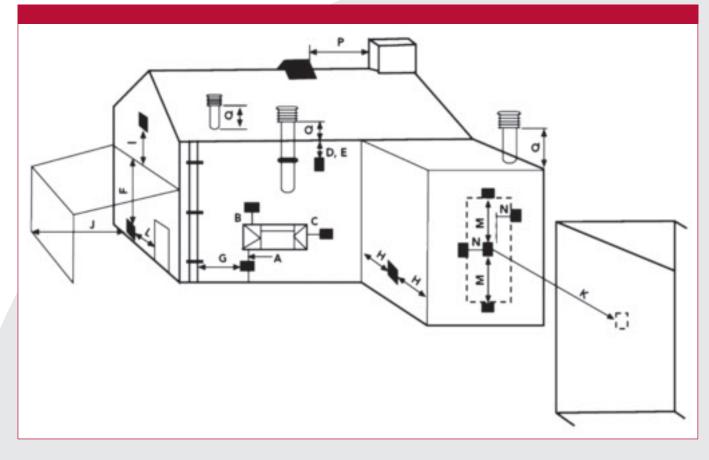
Pipe and flues connections

	Top view	Bottom view	Кеу
Optimax HE 31C	50 120 65 95	1 2 3 6 1 2 3 7 1 3 7	 CH flow (22mm with isolation valve fitted) DHW outlet (15mm with connection valve fitted) Gas inlet (22mm with isolation valve fitted) Cold main inlet (15mm with isolation valve fitted) CH return (22mm with isolation valve fitted (c/w filter)) Pressure relief valve Condensate outlet
Optimax HE 38 C	112 120 120 98		 CH flow (22mm with isolation valve fitted) DHW outlet (15mm with connection valve fitted) Gas inlet (22mm with isolation valve fitted) Cold main inlet (15mm with isolation valve fitted) CH return (22mm with isolation valve fitted (c/w filter)) Pressure relief valve Condensate outlet
Optimax HE 25 S			 CH flow (22mm with isolation valve fitted) Gas inlet (22mm with isolation valve fitted) CH return (22mm with isolation valve fitted (c/w filter)) Pressure relief valve Condensate outlet
Optimax HE 31 S	90 112 120 120 98 		 CH flow (22mm with isolation valve fitted) Gas inlet (22mm with isolation valve fitted) CH return (22mm with isolation valve fitted (c/w filter)) Pressure relief valve Condensate outlet
Optimax 25 OV			 CH flow (22mm with compression coupler fitted) Gas inlet (22mm with isolation valve fitted) CH return (22mm with compression coupler fitted) Pressure relief valve Condensate outlet

Please consult Ferroli for details of the new Optimax HE 18 S and Optimax HE 18 OV



Flue terminal positions



Flu	e terminal positions	mm	
А	Directly below an opening, air brick, opening windows etc	300	
В	Above an opening, air brick, opening windows etc	300	
С	Horizontally to an opening, air brick, opening windows etc	300	
D	Below gutters, soil pipes or drain pipes	75	
Е	Below eaves	200	
F	Below balconies or car port	200	
G	From a vertical drain pipe or soil pipe	150	
Н	From an internal or external corner	100	
	Above ground roof or balcony level	300	
J	From a surface facing the terminal	600	
Κ	From a terminal facing the terminal	1200	
L	From an opening in the car port (ie door, window) into the dwelling	1200	
М	Vertically from a terminal on the same wall	1500	
Ν	Horizontally from a terminal on the same wall	300	
0	From the wall on which the terminal is mounted	N/A	
Ρ	From a vertical structure on the roof	150	
Q	Above intersection with roof	300	

Notes

In addition, the terminal must not be nearer than 300mm to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame.

Condensing terminal positions: If the flue is to be terminated at low level, then the potential effect of the plume must be considered.

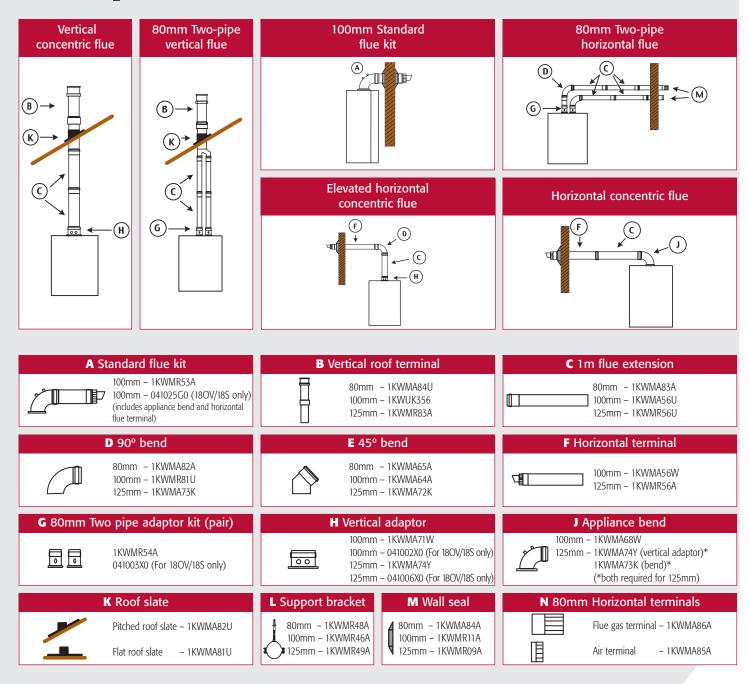
The plume should not be directed:

across a frequently used access route
 towards a window

- across a neighbouring property

For more information on terminal positions please contact our technical department on 08707 282 885 OPTION 1

Flue options



Flue length reductions for bends

TWO PIPE FLUE - 80MM

Reduction for bends	Air	Flue
90° bend	1.5m	2.0m
45° bend	1.2m	1.8m
Pipe - per metre length	1m	1.6m+/2m++
Horizontal terminals	2m	5m
Concentric vertical		12m
+Vertical ++Horizontal		

CONCENTRIC FLUE

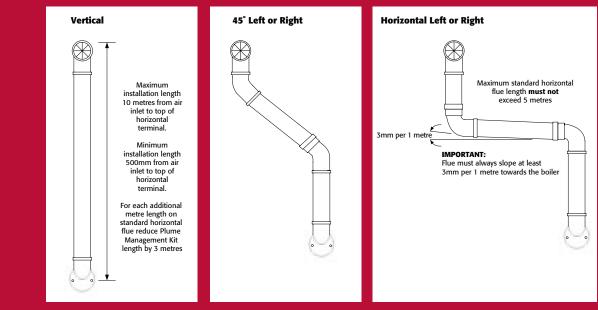
Reduction for bends	60/100	80/125
90° bend	1m	0.5m
45° bend	0.5m	0.25m
-15 Della	0.5111	0.25111



New accessories for the Optimax HE

Plume management kit

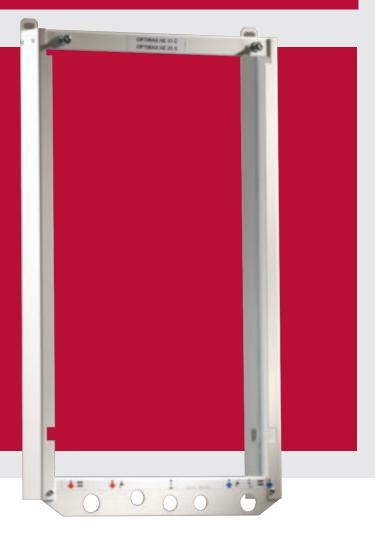
For use with all Optimax HE Models except the 18OV & 18S. For the 18OV & 18S please use standard flue kit (041025G0) & retro plume kit (041003G0) Kit Part No: 041004G0 includes 1x appliance bend, 1x horizontal terminal, 1x wall bracket, 1x extension and 1x 90° terminal bend
Additional extensions, bends and brackets are available. Please contact Ferroli for details



Space frame kit

- Allows piping to run vertically behind the boiler
- Part No: 046007G0 for Optimax HE 25S and 31C
- Part No: 046008G0 for Optimax HE 31S and 38C







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Ferroli Limited

Ferroli began producing heating appliances and equipment in Italy during the 1950s. Today the company is still family-owned but now operates ten ultra-modern factories in Europe and is developing new production sites and offices in China, Russia and the Ukraine. The Group employs over 2,200 people and produces more than 500,000 boilers per year in addition to its growing business in water heaters and air conditioners.

Ferroli Domestic Heating Tel: 08707 282 882

Offering gas wall mounted units with outputs from 5kW to 50kW, Ferroli's stylish, compact domestic boilers provide maximum comfort with minimal fuel usage. With a choice of conventional, condensing and combi technologies, there's a boiler to match the heating and hot water requirements of every home. In recent years Ferroli has also become a Northern European leader in solar heating, and has developed underfloor heating systems for the UK market.

Ferroli Commercial and Industrial Heating Tel: 08707 272 755

Ferroli commercial boilers for pressure jet oil, forced air gas or dual fuel are factory matched with high efficiency burners to provide outputs up to 14,000kW, while meeting the strictest emissions demands. Our range includes high efficiency aluminium, cast iron, steel and stainless steel boilers as well as stainless steel unvented hot water cylinders, pressurisation units and plate heat exchangers. We are also taking a lead in developing underfloor and solar heating solutions.

Ferroli Technical Helpline and Service Tel: 08707 282 885

The Ferroli technical help desk is able to assist heating engineers at the time of specifying, installing and in-guarantee servicing any of our products. Once the normal guarantee period on our boilers has expired, coverage can be extended cost-effectively with a choice of Ferroli service contracts. All Ferroli service engineers work to Benchmark standards and the Benchmark Code of Practice for the installation, commissioning and servicing of central heating systems.

Ferroli Spares Tel: 08707 282 882

The rapidly growing popularity of Ferroli as first choice for both domestic and commercial installations means that heating parts stockists offer readily available spares for Ferroli boilers. For less frequently needed items, we maintain a fully-stocked warehouse located centrally in the UK, enabling same-day despatch of just about any part needed to keep your Ferroli boiler running at optimum efficiency.

Ferroli Training Tel: 08707 282 891

Ferroli understands that well-trained installers are the key to a safe and efficient heating system. That's why we run comprehensive training courses in our purpose-built facilities for everyone concerned in the installation and servicing of Ferroli's range of boilers. We also offer a solar appreciation training day at Burton-upon-Trent or a three day BPEC accredited course. These courses improve installers' knowledge and skills by providing both the theory and the hands-on practical experience essential to maintaining heating system performance and safety.





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All the information in this brochure was correct at the time of printing, specifications and designs may be changed owing to Ferroli's policy of continuous product research and development. The statutory rights of the consumer are not affected.

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