PREXTHERM

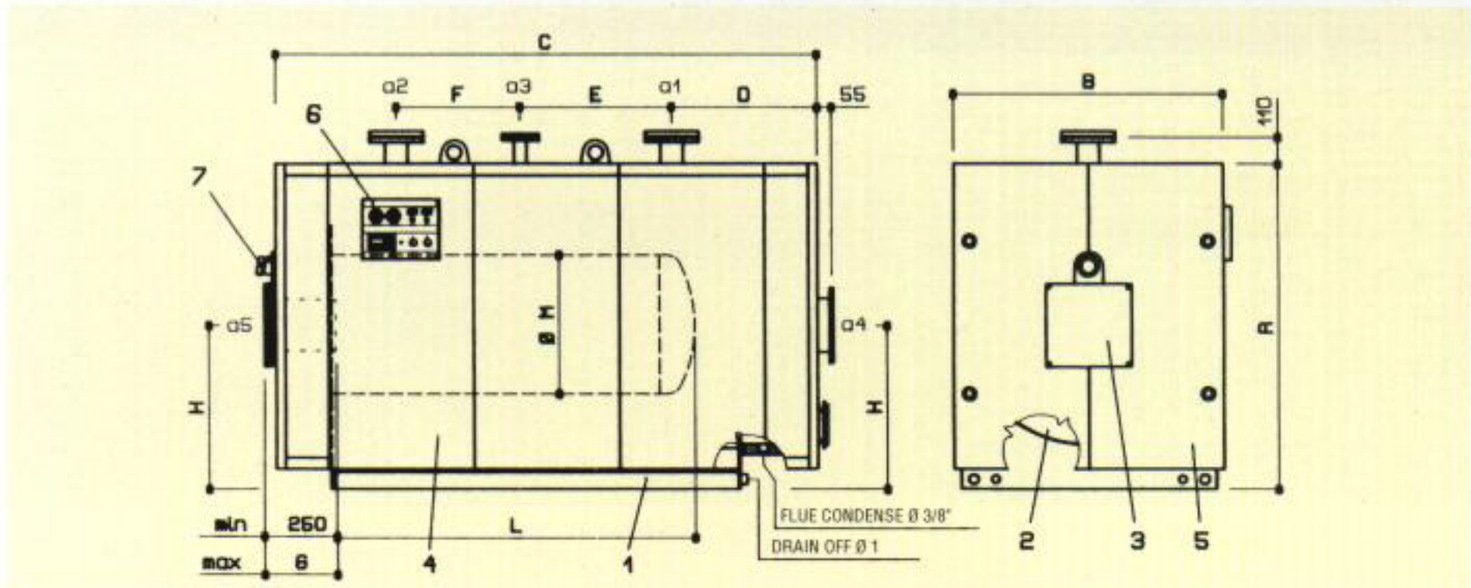
MODELS 550 to 2000 kW

FERROLI

PREXTHERM

GENERAL DESCRIPTION

The PREXTHERM range of welded steel boilers are available in 16 sizes from 100 kW to 2000 kW and are suitable for oil (35 sec class D) natural gas, L.P.G. or dual fuel. Manufactured from the highest quality steel the standard range is suitable for indirect central heating and hot water services up to a maximum working pressure of 5 bar, and a flow temperature of 85°C. Subject to special order 6,8 or 10 bar versions are also available. Working on the flame reversal principle and 3 pass flue system the PREXTHERM series will provide combustion efficiencies in excess of 90% net. All PREXTHERM boilers are supplied with control panels that include control thermostat, high-low thermostat, limit thermostat (manual reset), hours run indicators for high and low fire, burner ON/OFF switch, burner lockout, thermometer and pressure gauge. All PREXTHERM boilers are CE approved and conform to the relevant European Standards.



1 Boiler shell
a1 Flow connection
2 Door
a2 Return connection
3 Burner mounting plate
a3 Safety valve tapping
4 Casing
a4 Flue outlet
5 Door insulation
a5 Burner flange
6 Control panel

TECHNICAL DATA

PREXTHERM	A	B	C	D	E	F	G	H	L	M	a1-a2	a3	a4	a5
550	1400	1230	2363	746	500	500	340	720	1600	700	DN 100	DN 40	350	240
620	1400	1230	2563	746	700	500	340	720	1800	700	DN 100	DN 40	350	240
800	1540	1365	2570	782	525	620	360	790	1850	800	DN 125	DN 65	400	270
1000	1540	1365	3020	782	975	620	360	790	2300	800	DN 125	DN 65	400	270
1300	1630	1465	3248	853	972	805	370	840	2500	850	DN 150	DN 65	450	300
1600	1780	1605	3532	975	1070	805	380	915	2700	950	DN 150	DN 100	450	300
2000	1880	1710	3658	1010	1070	805	400	915	2800	1000	DN 150	DN 100	500	300

PREXTHERM	OUTPUT kW		INPUT kW		COMBUSTION CHAMBER	WATER CAPACITY	PRESSURE DROP WATER m/bar		WORKING	WEIGHT
	Min.	Max.	Min.	Max.	Volume m³	dm³	Δt 11°C	Δt 15°C	Press. bar	kg
550	330	550	359	598	0,574	852	26	14	5	1150
620	372	620	404	674	0,647	936	35	19	5	1240
800	480	800	522	870	0,867	1060	33	18	5	1580
1000	600	1000	652	1087	1,083	1290	56	30	5	1830
1300	780	1300	849	1415	1,332	1610	56	30	5	2290
1600	960	1600	1043	1739	1,797	2260	126	66	5	3000
2000	1200	2000	1304	2174	2,068	2750	75	40	5	3470

BASE REQUIREMENTS

It is recommended that all the PREXTHERM boilers should be installed on a load bearing non combustible base not less than 80 mm high and extending to at least 100 mm in excess of the overall boiler dimensions. The base can be level with but not extend beyond the front of the boiler casing. Certain burners may require a higher base. Please consult FERROLI technical services for further details.

INSTALLATION REQUIREMENTS

All PREXTHERM boilers should be installed in accordance with the relevant requirements of the building Regulations, Health and Safety Executive Regulation PMS, IEE Regulations and the Byelaws of the Local Authority and the local water company.

British Standard Codes of Practice

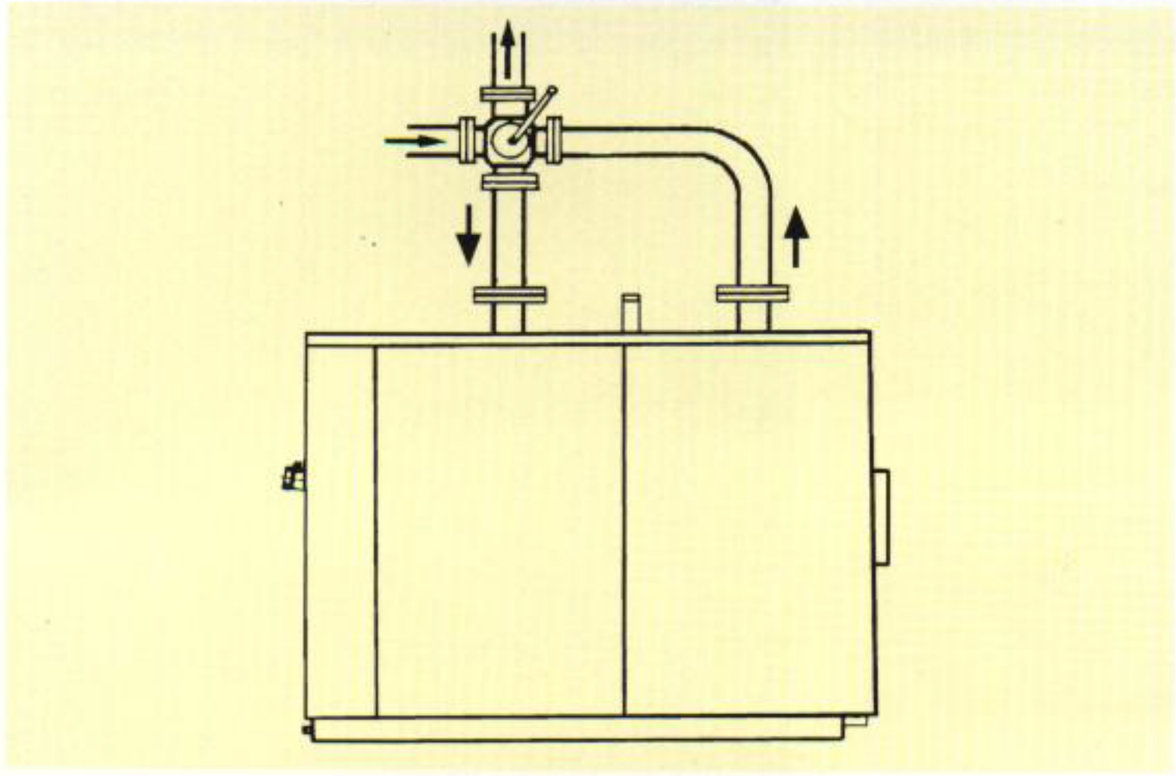
CP341.300-307: Central heating by low pressure hot water.
CP341.342: Part 2 Centralised hot water supply.
CIBSE Guide: Reference sections B7, B11 & B13.
IGE/UP/2: Gas Installation pipework, boosters and compressors on Industrial and Commercial premises.
BS6644: Installation of gas fired hot water boilers rated inputs above 60 kW but not greater than 2 Mw.
BS5410: Part 2 oil-fired installation of 44 kW and above.

FLUE SYSTEMS

Flue should be designed and installed to effectively evacuate the products of combustion. For guidance consult BS6644 British Gas Publication No IM11. Further information in respect of oil-fired installations may be obtained from BS5410 Part 3.

SYSTEMS REQUIREMENTS

The PREXTHERM range of boilers can operate against a maximum temperature difference (Δt) of 20°C. Beyond this value the use of shunt pumps will be mandatory. Furthermore to reduce the risk of corrosion within the boiler tubes it is essential that the flow temperature should never drop below 65°C particularly with fuels having a sulphur content in excess of 3%. Regardless of the system temperature needs, a 4-way mixing valve should be installed.



VENTILATION

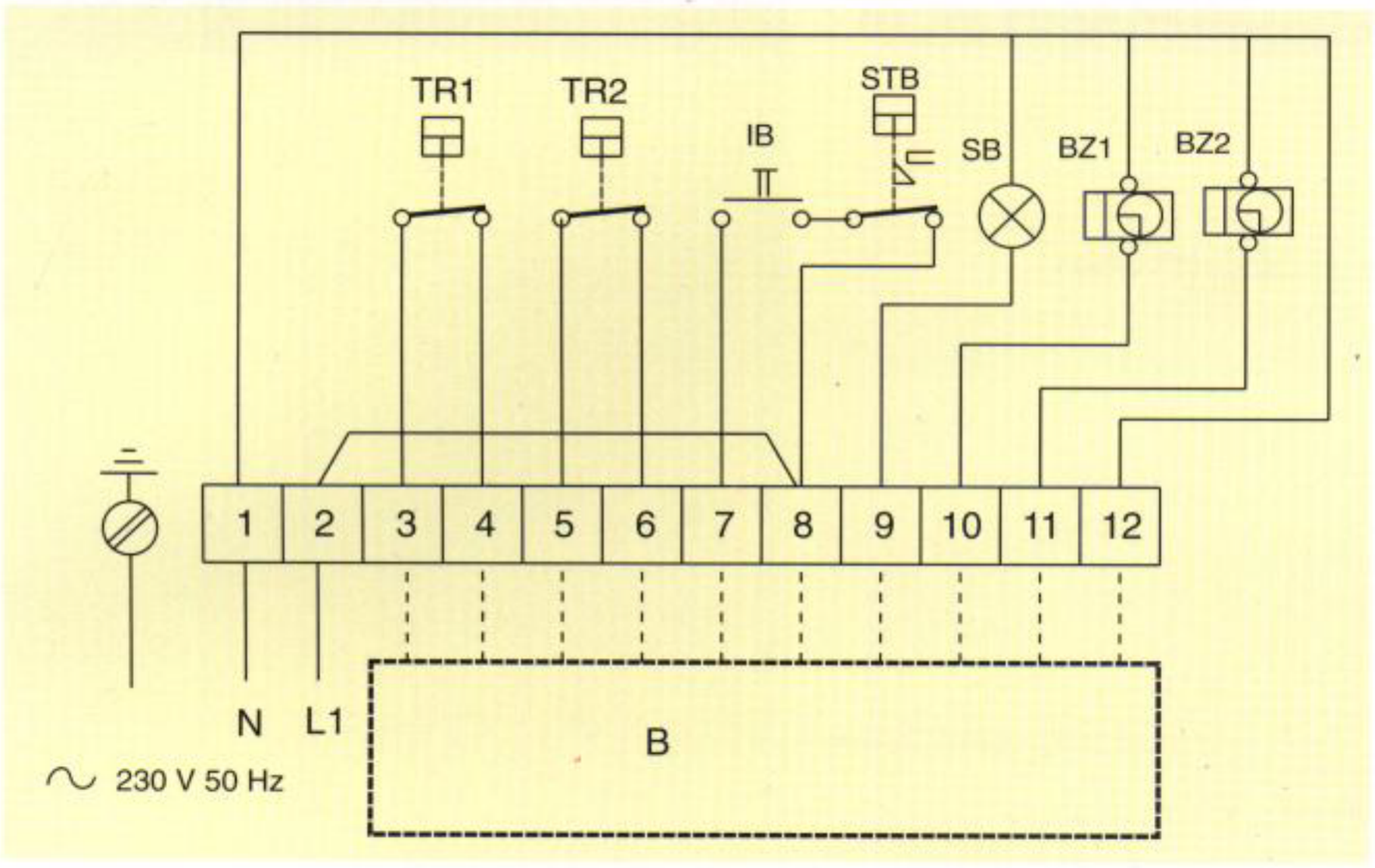
Safe, efficient, and trouble-free operation of boilers is vitally dependent on the provision of an adequate supply of fresh air to the room in which the appliance is installed. Ventilation by grilles communicating directly with the outside, air is required at both high and low levels. The minimum free areas of these grilles must be in accordance with the table below. The use of an extractor fan in the same room as the boiler (or in an adjacent room in communication) can, in certain conditions, adversely effect the safe operation of the boiler. Where such a fan is already fitted, or if an extractor fan is likely to be installed at a later date, then further advice should be obtained.

Total gross input rating of boilers	Position of Air vents	Air vent areas (Air direct from outside)
Up to 2 MW	High Level	270 cm^2 plus 2.25 cm^2 per kW in excess of 60 kW total rated input
Up to 2 MW	Low Level	540 cm^2 plus 4.5 cm^2 per kW in excess of 60 kW total rated input

For further detailed recommendations consult BS5440 PART 2 and BS6644

ELECTRICAL DIAGRAM

N.B.: The wiring shown indicates control loop circuits. In those instances where 3 phase burners are used then separate supplies will need to be taken direct to the burner.



TR1 Burner 1st stage regulation thermostat
TR2 Burner 2nd stage regulation thermostat
IB Burner ON/OFF switch
STB Limit thermostat (manual reset)
BZ1 Burner 1st stage hour meter
BZ2 Burner 2nd stage hour meter
B Burner control panel
SB Burner lock out lamp

WATER TREATMENT

Water contained in all heating and indirect hot water systems, particularly open vented systems, requires basic treatment. It is wrong to assume that because boilers are operating in conjunction with what is an apparently closed circuit, an open vented system will not under normal circumstances allow damage or loss of efficiency due to hardness salts and corrosion once the initial charge of water has been heated several times. One millimetre of lime reduces the heat conversion from flame via metal to water by 10%. In practice the accumulation of these salts is liable to cause noises from the boiler body or even premature boiler failure. Corrosion and the formation of black iron oxide sludge will ultimately result in premature radiator failure. Open vented systems are not completely sealed off from the atmosphere because it is necessary to provide a tank open to atmosphere if proper venting and expansion of system water is to be achieved. The same tank is used to fill the systems with water and it is through the cold feed pipe that system water expands into the tank when the boiler passes heat into the system. Conversely, when the system cools, water previously expanded is drawn back from the tank into the system together with a quantity of dissolved oxygen. Even if leakage from the heating and hot water system is eliminated there will be evaporation losses from the surface of the tank. Depending on ambient temperature these may be high enough to evaporate a large portion of the system water capacity over a full heating season. Corrosion will always occur within a heating/hot water system to a greater or lesser degree irrespective of water characteristics, unless the initial fill water from the mains is treated. Even the water in closed systems will promote corrosion unless treated.

PRODUCT RANGE

BOILERS

WALL-MOUNTED BOILERS

With or without water production, these high performance, electronic and fully modulating systems are suitable for both hot water and heating applications. Models with outputs from 6 kW to 35 kW.

CAST IRON BOILERS ATMOSPHERIC GAS FIRED

High performance, with or without hot water production; models with outputs from 10 kW to 289 kW.

CAST IRON BOILERS PRESSURE JET OIL AND GAS FIRED

High performance, with or without hot water production, some models operate at low temperature. Models with outputs ranging from 17 kW to 650 kW.

HOT WATER STORAGE CALORIFIERS

From 100 to 500 litre capacity.

WELDED STEEL BOILERS

High performance models with outputs ranging between 87 kW and 10,465 kW for hot water, superheated hot water and steam up to 15 bar.

SOLID FUEL BOILERS

These units are ideal for burning wood chips and fluid fuels (2 fuels) with output ranging between 174 kW and 6,990 kW for production of hot water superheated hot water and steam up to 15 bar.

AIR-CONDITIONING

A complete range of products for air-conditioning ranging from mobile units, single and multisplit units, with chillers up to 143 kW.

WHIRLPOOL BATH

An exclusive range of whirlpool and showers complete with accessories are available in 4 colours.

ALL FERROLI BOILERS ARE CE APPROVED AND CONFORM TO THE RELEVANT EUROPEAN STANDARDS.

Tipolito FALTRACCO - COD. 89010205 06.98

FERROLI

FERROLI LIMITED
Stockton Close, Minworth Industrial Park, Minworth
Sutton Coldfield, West Midlands B76 1DH
Sales & Service Tel: 0121 352 3500
Sales Fax: 0121 352 3505
Service Fax: 0121 352 3510
Admin Fax: 0121 352 3515