

TECHNICAL SPECIFICATIONS

INSTALLATION

Installation must comply with the current British Standards and Building Regulations. Comprehensive technical information can be found in the installation manual which is supplied with every boiler.

CONVENTIONAL FLUES

Grant boilers have extremely high efficiencies which result in lower flue gas temperatures. It is important to use the correct size of flue as specified in the installation manual.

FUEL

All burners are supplied factory set at a mid-range output (except Combi's) for use on standard grade kerosine – Class C2. The burners can be reset on commissioning to operate on Class D, gas oil, but only for conventional flue applications of 70,000 Btu/h output and above. High level and vertical balanced flue kits can also be used subject to complying with the relevant building regulations. Note: Outdoor Modules are not suitable for Class D gas oil unless fitted with a high level or vertical flue. It is important that your fuel supplier is advised to deliver the correct grade of fuel.

ELECTRICAL CONNECTIONS (OUTDOOR ONLY)

Outdoor modules are supplied with a factory-fitted control panel, incorporating mains isolating switch, test switch, boiler and overheat thermostats and a frost thermostat pre-set to 5°C. A four core and earth cable connection is required providing a permanent live supply to the frost thermostat.

This leaflet is accurate at the time of printing but as Grant UK has a policy of continual improvement it may be superseded. We reserve the right to amend specifications without prior notice. The statutory rights of the consumer are not affected.

All products manufactured under I.S. EN ISO 9001.

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SYSTEM PROTECTION (OUTDOOR ONLY)

The fully weatherproofed outdoor modules have a high degree of insulation and are designed to cope with seasonal temperature variations. Whilst the boiler is supplied with a factory-fitted single pole frost thermostat, consideration should be given to protection of the system as a whole against prolonged freezing conditions by the use of a suitable central heating system antifreeze.

GUARANTEES

The unique heat exchangers of Grant Boilers are covered by a 5-year guarantee. All other component parts of the boiler are guaranteed for 2 years from the date of purchase, subject to being installed in accordance with the manufacturers instructions. There are also optional annual or 3 year extended warranty schemes available. On completion of the installation all Grant boilers should be commissioned and the guarantee registration form returned to Grant UK.

AFTER SALES SERVICE

For peace of mind, all Grant boilers are backed by a national network of independent service engineers. In the unlikely event of a problem occurring, your installer should telephone our Customer Service Department on

0870 7775553

WEBSITE DOWNLOADS

For further information about the Grant product range or to download our brochures please key:

www.grantuk.com

Our popular website is regularly updated with the latest news and product range developments.



GRANT^{UK}
OIL FIRED BOILERS

**GRANT ENGINEERING (UK) LTD, HOPTON HOUSE, HOPTON INDUSTRIAL ESTATE
DEVIZES, WILTSHIRE SN10 2EU TELEPHONE 0870 7775553 FAX 0870 7775559
E-mail: sales@grantuk.com Website: www.grantuk.com**

GRANT OIL-FIRED RANGE



GRANT OIL-FIRED BOILERS
FOR **INTERNAL** AND **EXTERNAL**
INSTALLATIONS - OUTPUTS FROM
15 TO 58kW (50-200,000Btu/h)



PRODUCTS AVAILABLE IN THIS RANGE:

- Multi Pass Kitchen
- Multi Pass Boiler House
- Multi Pass System

- Euroflame Kitchen/Utility
- Euroflame Boiler House
- Euroflame System

- Outdoor Module
- Outdoor Module System
- Outdoor Module Combi 90 V3
- Outdoor Module Combi Max

- Internal Combi 70 V3
- Internal Combi 90 V3
- Internal Combi Max



GRANT^{UK}
OIL FIRED BOILERS

ADVANCING OIL HEATING TECHNOLOGY

With an established history of over 30 years designing, manufacturing and supplying a wide range of highly efficient and reliable products, Grant has become a firm favourite for many heating engineers and householders when choosing a new or replacement oil-fired boiler.



The Company has achieved an enviable reputation within the heating industry for its approach to new concepts like the innovative Outdoor Module Range and more recently condensing technology. Today, the Grant product range extends to over 40 model variations with outputs to suit all domestic and small commercial applications.

ENDORSED AT THE HIGHEST LEVEL

Grant products and facilities have been endorsed at the highest level with the Grant Vortex range being named 'Domestic H&V Product of the Year 2003' and the Training Centre winner of 'Training Initiative of the Year 2004' both in the prestigious H&V News Awards for Excellence - known in the Trade as "The Oscars of the Heating Industry". Grant's training facilities were also acknowledged recently when they were awarded OFTEC Training Centre of the Year.

No other company in the domestic oil heating industry has ever received this level of recognition for product design, high quality engineering, innovation and training.

It was also the first time in the history of the H&V News Awards for Excellence that an oil-fired boiler has won the coveted trophy.

LESS HARM TO THE ENVIRONMENT

The Grant range of fully automatic pressure jet oil-fired boilers have been designed to comply with the OFTEC Standard OFS A100 (EN303 Part 4) and meet the requirements of the new European Boiler Efficiency Regulations.

Older oil-fired boilers, designed at a time when very little consideration was given to environmental issues, can operate with efficiency levels as low as 65%. A modern Grant oil-fired boiler has been tested and approved to operate at the very highest efficiency levels, achieving a considerable reduction in harmful emissions. In particular their low NOx emissions and clean combustion, means the latest Grant boiler range are some of the most environmentally-friendly oil-fired central heating boilers you can buy. Installing a Grant boiler can also save money as the higher efficiency means you will burn less fuel, making it more economical to run.

QUALITY DESIGN

Despite the sophisticated technology employed in the development of new products, Grant's design engineers have kept true to the original Grant concept of simplicity in installation and maintenance which are essential ingredients of today's heating systems. Grant products are manufactured from the highest quality materials and designed not just to meet, but to exceed all relevant performance and environmental standards.

Backed by highly efficient administration and Grant's comprehensive extended warranty schemes, the Company is also focused on providing an exceptional aftersales service for all of its customers.

REST ASSURED

When you order a Grant boiler or flue system you can be secure in the knowledge that you are purchasing the best quality and most reliable product from a long established independent oil heating specialist. Our policy has always been, and always will be, total commitment to the environment we live in and the customers we serve.



EZ-FIT FLUE SYSTEMS

All Grant boilers are supplied for connection to either a 'stainless steel' conventional flue, or one of Grant's EZ-Fit flue options. EZ-Fit flue kits feature self-sealing ducts which reduce installation time and ensure a perfect seal without the need for mastic or tape.

The flue systems are available as low level, high level, or vertical kits for internal and external applications, and even as unique EZ-Flexi Packs, designed to enable condensing boilers to utilise an existing chimney.

A colour coding system has been introduced to simplify flue selection, and a comprehensive guide is available which provides detailed information on all Grant EZ-Fit Flue options. Details are also available on our website:



www.grantuk.com



THE ADDED BENEFITS OF GRANT'S BALANCED FLUE BOILERS

At Grant, we have developed an external low level balanced flue terminal that is not adversely affected by strong winds. Another unique feature is a sealed burner, making Grant balanced flue boilers exceptionally quiet in the kitchen environment.



- 1 COMPANY PROFILE
- 3 MULTI PASS KITCHEN MODELS
- 5 EUROFLAME UTILITY MODELS
- 7 OUTDOOR MODULES
- 9 COMBI MODELS
- 11 TECHNICAL SPECIFICATIONS

CONDENSING PRODUCT RANGE

Grant also produce a range of SEDBUK A Rated Condensing Oil-fired Boilers. For details of these high efficiency products a separate Grant Vortex Condensing Range brochure is available via our sales hotline on **0870 7775553** or via our website: www.grantuk.com



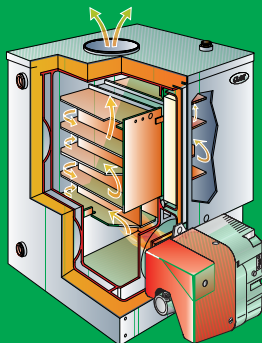
MULTI PASS

GREATER EFFICIENCY

The Multi Pass range was designed with efficiency in mind and has outputs from 50,000 Btu/h to 200,000 Btu/h and models up to 90,000 Btu/h are designed to kitchen modular dimensions. The space-saving blue boiler house versions, with outputs ranging from 70,000 Btu/h to 200,000 Btu/h, are the answer where the boiler is installed in a garage or outhouse.

The Multi Pass boiler's advanced design forces hot gases through its unique, patented, heat exchanger up to a distance of approximately 6.8 metres (22ft), holding them in contact with

the boiler surface area for longer. This process vastly increases the amount of heat transferred to the water jacket enabling the boiler to operate continually at much higher efficiencies whatever the output.



MULTI PASS HEAT EXCHANGER

SEALED SYSTEM BOILERS

There are 3 Multi Pass system kitchen boilers available with outputs from 50-140,000 Btu/h. These models are supplied with the 'Sealed System Kit' factory-fitted and also include a circulating pump within the boiler casing. Multi Pass Boiler House models and larger kitchen models are also suitable for Sealed System operation.

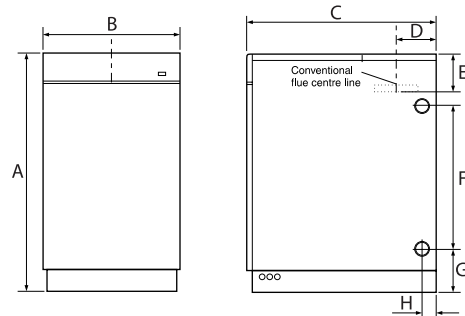
BOILER CONNECTIONS

	KITCHEN/BOILERHOUSE MODELS					SYSTEM MODELS		
Model	50/70	70/90	90/140	140/160	160/200	50/70	70/90	90/140
Output kW	15-20	20-26	26-41	41-47	47-58	15-20	20-26	26-41
Output Btu/h	50-70,000	70-90,000	90-140,000	140-160,000	160-200,000	50-70,000	70-90,000	90-140,000
Flow connection	2 x 1" BSP	2 x 1" BSP	2 x 1 1/4" BSP	2 x 1 1/4" BSP	2 x 1 1/4" BSP	22mm	22mm	28mm
Return connection	2 x 1" BSP	2 x 1" BSP	2 x 1 1/4" BSP	2 x 1 1/4" BSP	2 x 1 1/4" BSP	2 x 1" BSP	2 x 1" BSP	2 x 1 1/4" BSP
Cold Main	n/a	n/a	n/a	n/a	n/a	15mm	15mm	15mm
Pressure Relief	n/a	n/a	n/a	n/a	n/a	15mm	15mm	15mm

NOTE 1: On Multi Pass System models the flow connection can exit the casing on the left or right hand side.

DIMENSIONS

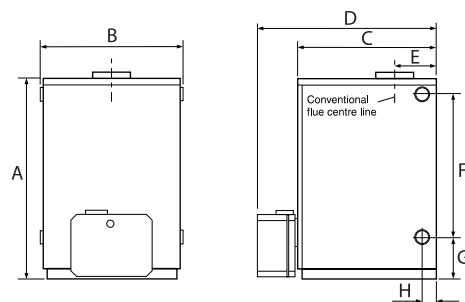
GRANT MULTI PASS KITCHEN MODELS



All dimensions in millimetres

	Kitchen (Cased) Dimensions (mm)							
Model	A	B	C	D	E	F	G	H
50/70 70/90	860	410	605	120	170	499	160	36
90/140	1080	410	690	125	200	650	180	54
140/160 160/200	1200	530	835	148	175	700	245	75

GRANT MULTI PASS BOILER HOUSE MODELS



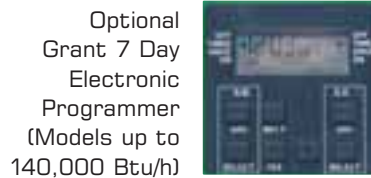
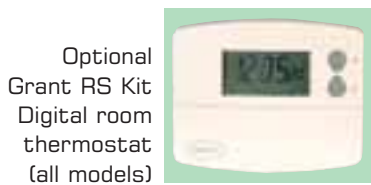
	Boiler House Dimensions (mm)							
Model	A	B	C	D	E	F	G	H
70/90	720	450	445	625	145	499	160	65
90/140	895	450	480	655	135	650	185	68
140/160 160/200	1000	550	580	765	145	700	240	70

THE GRANT MULTI PASS RANGE

Kitchen Models

MP5070	MP7090	MP90140
MP140160	MP160200	

- 1 Control Panel
- 2 Knockout for electronic programmer kit
- 3 Boiler on/off switch with neon indicator
- 4 Boiler thermostat
- 5 Overheat thermostat
- 6 Service access door
- 7 Riello RDB Burner
- 8 Drain Cock
- 9 Quick-release plinth



MODEL SHOWN
MP5070

Sealed System Models

MPS5070	MPS7090	MPS90140
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- 1 Filling Loop for Sealed System
- 2 System Pressure Gauge
- 3 Isolating Valve
- 4 Boiler thermostat
- 5 Overheat thermostat
- 6 Expansion Vessel
- 7 Riello RDB Burner
- 8 Flexible hose
- 9 Drain Cock



MODEL SHOWN
MPBH90



MODEL SHOWN
MPS 5070

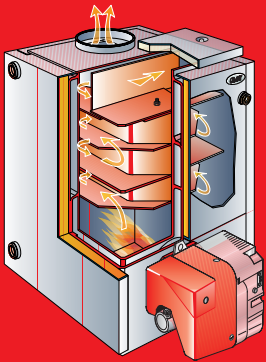
Boiler House Models

MPBH90	MPBH140
MPBH160	MPBH200

ECONOMICAL EFFICIENCY

There are eight 50-120,000 Btu/h Euroflame models to choose from which include three (white cased) kitchen/utility models, three (blue cased) boiler house models and two white cased Sealed System models. The Euroflame's unique system of internal baffles force the hot gases to travel up to 8 1/2 feet (2.6 metres) on 50/70 models, 11 feet (3.5 metres)

on 50/90 and 21 feet (6.4 metres) on 90/120 models. These designs vastly increase the heat absorbed by the water jacket, improving efficiency and providing highly cost effective central heating and hot water.



**EUROFLAME
HEAT
EXCHANGER**

SEALED SYSTEM MODELS

Sealed System models are supplied with a concealed factory-fitted control panel and factory-fitted sealed system kit, comprising 12 litre expansion vessel, filling loop with isolation valves, pressure gauge, automatic air vent, pressure relief valve and circulating pump, neatly housed within the casing.



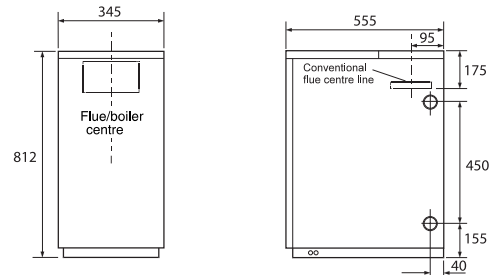
BOILER CONNECTIONS

Model	UTILITY/BOILER HOUSE MODELS			SYSTEM MODELS	
	50/70	70/90	90/120	50/90	90/120
Output kW	15-20	20-26	26-35	15-26	26-35
Output Btu/h	50-70,000	70-90,000	90-120,000	50-90,000	90-120,000
Flow connection	2 x 1" BSP	2 x 1" BSP	2 x 1 1/4" BSP	22mm	28mm
Return connection	2 x 1" BSP	2 x 1" BSP	2 x 1 1/4" BSP	2 x 1" BSP	2 x 1 1/4" BSP
Cold Main	n/a	n/a	n/a	15mm	15mm
Pressure Relief	n/a	n/a	n/a	15mm	15mm

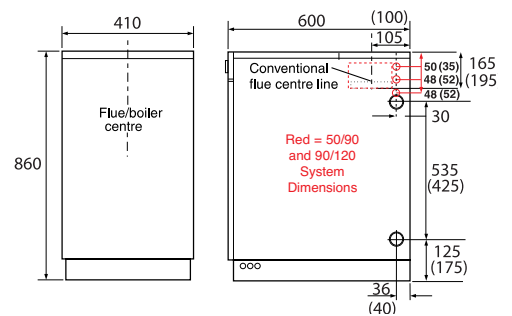
NOTE 1: On Euroflame System models the flow connection can exit the casing on the left or right hand side.

DIMENSIONS

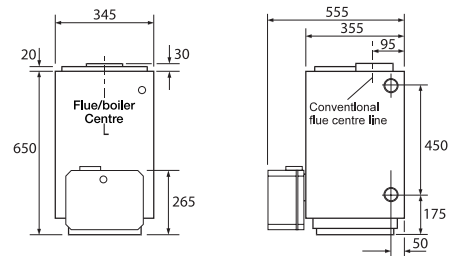
THE EUROFLAME **50/70** KITCHEN/UTILITY MODEL DIMENSIONS



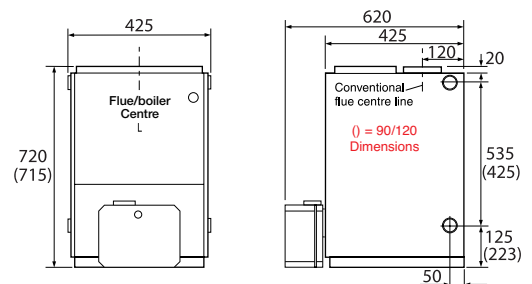
THE EUROFLAME **70/90 & 90/120** KITCHEN/UTILITY AND **50/90 & 90/120** SEALED SYSTEM MODEL DIMENSIONS



THE EUROFLAME **50/70** BOILER HOUSE MODEL DIMENSIONS



THE EUROFLAME **70/90 & 90/120** BOILER HOUSE MODEL DIMENSIONS



All dimensions in millimetres

THE GRANT EUROFLAME RANGE

Utility Models

EF5070

EF7090

EF90120

- 1 Control Panel
- 2 Boiler on/off switch with neon indicator
- 3 Boiler thermostat
- 4 Overheat thermostat
- 5 High level of insulation for quieter operation
- 6 Rigid case construction
- 7 Riello RDB Burner
- 8 Flexible air duct
- 9 Multi-directional flueing (within casing)



Optional
Grant RS Kit
Digital room
thermostat
(all models)



MODEL SHOWN
EF5070

Sealed System Models

EFS5090

EFS90120

- 1 Boiler on/off switch with neon indicator
- 2 System pressure gauge
- 3 Boiler thermostat
- 4 Overheat thermostat
- 5 Factory fitted Control Panel
- 6 Fully insulated for quieter operation
- 7 Rigid case construction
- 8 Riello RDB Burner
- 9 Flexible air supply tube
- 10 Lock-out button
- 11 Circulating pump
- 12 Filling Loop



MODEL SHOWN
EFBH5070



MODEL SHOWN
EFS5090

Boiler House Models

EFBH5070

EFBH7090

EFBH90120

OUTDOOR MODULE

THE UNIQUE MONEY-SAVING OUTDOOR MODULE

An innovation in central heating, the Grant Outdoor Module cuts cost dramatically as little or no building work is necessary. It comes complete with a built-in multi-directional low level flue and can be either fixed against any suitable external wall, or installed freestanding allowing for the necessary clearances around the flue terminal. A conventional flue starter elbow is also available, allowing the flue to run vertically when siting conditions restrict low level applications (see Green Flue System). Their advanced heat exchanger design forces the hot gases through a patented baffle system. This process vastly increases the amount of heat transferred to the water jacket, enabling the boiler to operate continually at much higher efficiencies.

EXTERNAL FINISH

To increase the versatility of the unique outdoor module range, a high quality 'external' powder coated paint finish is applied to the existing galvanised steel casing, eliminating the need to prime or paint appliances on site.

SEALED SYSTEM AND COMBI MODELS

The optional sealed system kit can be neatly housed within the enclosure of the module. A filling loop and pressure gauge is supplied as part of the kit, for fitting in a convenient location within the building, between the cold main and central heating system. Outdoor Combi Modules are supplied with a Sealed System Kit factory fitted.

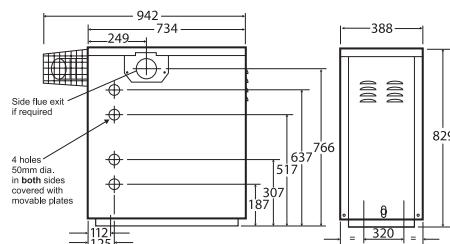
BOILER CONNECTIONS

Model	OUTDOOR MODULES				OUTDOOR COMBI'S	
	50-70	70-90	90-120	110-140	90	MAX
Output kW	15-20	20-26	26-35	32-41	26	33
Output Btu/h	50-70,000	70-90,000	90-120,000	110-140,000	90,000	113,000
Flow connection	1x1" - 1x3/4"	1x1" - 1x3/4"	1x1 1/4" - 1x3/4"	2x1 1/4"	22mm	22mm
Return connection	2x1"	2x1"	2x1 1/4"	2x1 1/4"	22mm	22mm
Cold Water In	n/a	n/a	n/a	n/a	15mm	15mm
Hot Water Out	n/a	n/a	n/a	n/a	15mm	15mm
Pressure Relief	n/a	n/a	n/a	n/a	15mm	15mm

NOTE: 1) All boiler connections can be positioned to the left or right of the appliance.

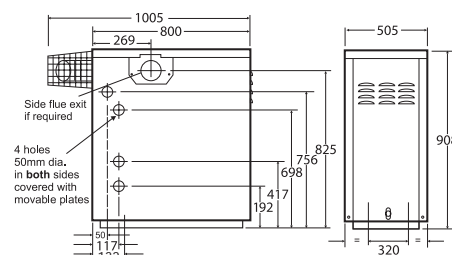
DIMENSIONS

The **50/70** Outdoor Module dimensions

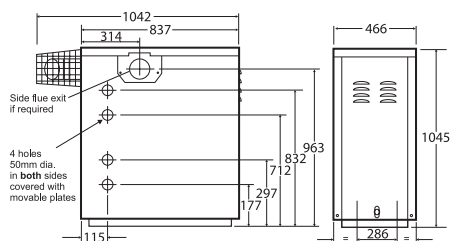


All dimensions in millimetres

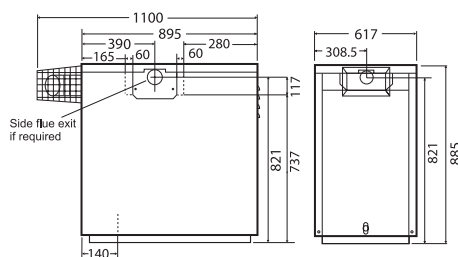
The **70/90 & 90/120** Outdoor Module dimensions



The **110/140** Outdoor Module dimensions



Outdoor **Combi 90** and Outdoor **Combi Max** Module



MODEL SHOWN - OMCOMBI90V3

THE GRANT OUTDOOR MODULE RANGE

Outdoor Modules

EFOM 5070

EFOM7090

EFOM90120

EFOM110140

- 1 Control Panel (incorporating frost stat)
- 2 Boiler Thermostat
- 3 Overheat Thermostat
- 4 Mains Isolating Switch
- 5 Test Switch
- 6 Riello RDB Burner
- 7 Powder Coated Finish



MODEL SHOWN
EFOM5070



Optional conventional flue starter elbow for Outdoor Module and Outdoor Combi (see EZ-Fit Flue Guide - Green System)



Multi-directional Low level flue factory fitted to Outdoor Module and Outdoor Combi.

Outdoor Combi Modules

OMCOMBI90

OMCOMBIMAX

- 1 Multi-Directional Flue Outlet
- 2 Pump Isolating Valve
- 3 Circulating Pump
- 4 Flow Switch
- 5 35 Plate Hot Water Heat Exchanger
- 6 Factory Set Blending Valve
- 7 Primary Return
- 8 Drain Cock
- 9 Low Pressure Switch

TYPICAL HOT WATER PERFORMANCE

OMCOMBI90V3*

17 litres per minute at an average temperature of 50°C.
Recovery time 4 minutes approx.
Based upon 100litre draw off.

OMCOMBIMAX*

20 litres per minute at an average temperature of 50°C.
Recovery time 3 minutes approx.
Based upon 100litre draw off.

MAINS WATER PRESSURE

Minimum 2.5bar (36psi)
Maximum 8bar (115psi)

*Hot water flow rate is dependant on mains pressure available.



Flow, Return, Hot and Cold valved connections



MODEL SHOWN OMCOMBI90V3
(rear view)



Remote Timer Kit (optional)



Frost Stat set to 5°C (factory fitted inside control panel)



GRANT COMBI

INSTANT HOT WATER AT MAINS PRESSURE

A Grant Combi boiler provides both central heating and hot water at mains pressure. Factory set to 70,000 Btu/h (Euroflame Combi 70 V3), 90,000 Btu/h (Multi Pass Combi 90 V3) and 113,000 Btu/h (Multi Pass Combi Max), they are designed for use on a sealed heating system, with all the necessary components housed within the compact and elegant white casing.

Using the primary water stored in the boiler, for rapid response to a demand for hot water, and with quick recovery after hot water operation, the Grant Combi can provide ample amounts of hot water instantly, whenever required, night and day. A factory-set thermostatic blending valve ensures a stable control of the hot water temperature, minimising fluctuations caused by other taps being turned on!

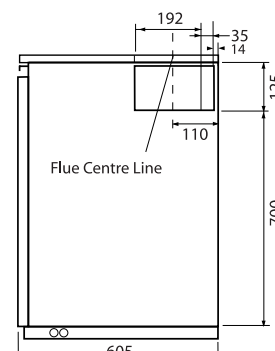
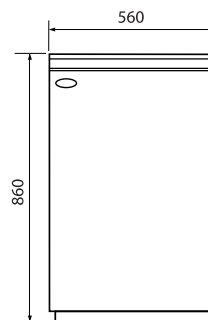
Grant Combi boilers are designed to be installed beneath standard height kitchen worktops. The Combi 90 V3 and the Combi Max only require access from the front for routine servicing, whereas the Combi 70 V3 needs a removable section of worktop for service access and maintenance operations.

The V3 range incorporates Grant's new electronic temperature control, low system pressure warning and fully valved connections, which enables pipework to run to the left or right hand side of the boiler. All models comply with the OFTEC Standard OFS A100 (EN303 Part 4), and are the ideal choice for the replacement of old appliances, leading the way in the energy efficient provision of central heating and hot water in small to medium sized homes.



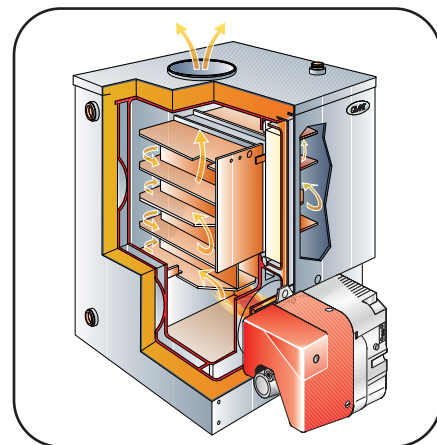
DIMENSIONS

THE COMBI 70 V3, COMBI 90 V3 AND COMBI MAX DIMENSIONS

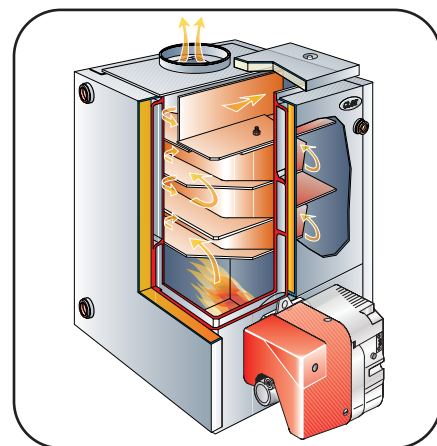


Right side view

All dimensions in millimetres



COMBI 90 HEAT EXCHANGER



COMBI 70 HEAT EXCHANGER

BOILER CONNECTIONS

	COMBI MODELS		
Model	70	90	MAX
Output kW	20	26	33
Output Btu/h	70,000	90,000	113,000
Flow connection	22mm	22mm	22mm
Return connection	1" BSP	1" BSP	1" BSP
Cold Water In	15mm	15mm	15mm
Hot Water Out	15mm	15mm	15mm
Pressure Relief	15mm	15mm	15mm

NOTE: 1) All boiler connections can be positioned to the left or right hand side.

THE GRANT COMBI RANGE

Combi Models

EFCOMBI70 | MPCOMBI90 | MPCOMBIMAX

- 1 System pressure gauge
- 2 Low Pressure Warning Neon
- 3 Electronic Boiler thermostat
- 4 Overheat thermostat
- 5 Circulating pump
- 6 Isolating valves
- 7 Flow switch
- 8 35 Plate hot water heat exchanger
- 9 Riello RDB Burner
- 10 Boiler drain cock
- 11 Factory Set Mixing Valve
- 12 Low Pressure Switch
- 13 12 Litre Expansion Vessel



Optional Grant RS Kit Digital room thermostat (all models)



Optional remote Timer Kit



Optional plug-in electronic or mechanical timers



MODEL SHOWN MPCOMBIMAX

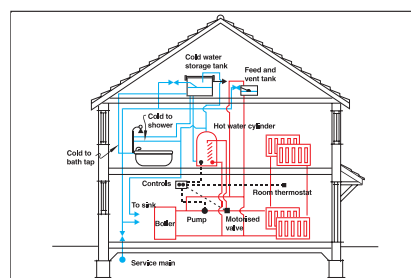
ENJOYING THE TWIN BENEFITS

An oil combination boiler provides the benefits of highly efficient oil central heating, combined with instant hot water.

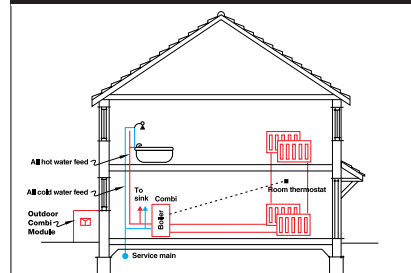
The savings are considerable in cost and space. You save space because unlike a conventional system there is no need for a hot water cylinder in the airing cupboard, or cold water header tank in the loft (not forgetting all the extra pipework!). So you save money as there is no need to pay to store hot water.

Furthermore, you will never have to wait for a 30-gallon cylinder to heat up because you've run out of hot water! You can have bath after bath, time after time. And, of course, because a combi provides

hot water direct from the cold mains, you'll enjoy powerful, invigorating showers.



TRADITIONAL SYSTEM



GRANT COMBI SYSTEM

TYPICAL HOT WATER PERFORMANCE

EFCOMBI70V3*

15 litres per minute at an average temperature of 50°C. Recovery time 8 minutes approx. Based upon 100litre draw off.

MPCOMBI90*

17 litres per minute at an average temperature of 50°C. Recovery time 4 minutes approx. Based upon 100litre draw off.

MPCOMBIMAX*

20 litres per minute at an average temperature of 50°C. Recovery time 3 minutes approx. Based upon 100litre draw off.

MAINS WATER PRESSURE

Minimum 2.5bar (36psi)
Maximum 8bar (115psi)

*Hot water flow rate is dependant upon mains pressure available.