GENERAL INFORMATION

EASY TO COMMISSION, SERVICE AND MAINTAIN

As with all oil-fired appliances, Grant Vortex Condensing Boilers require commissioning at the time of installation. This simple process ensures that the boiler is working at peak efficiency, which in turn will result in lower running costs and long term reliability.

Annual maintenance is also made easy by Grant's cleverly designed front service access to both the burner and all the internal serviceable parts. This feature enables Grant Vortex Condensing Boilers to be fitted neatly and unobtrusively within either the kitchen or utility room environment. Alternatively, if internal siting is a problem, space-saving outdoor versions are available.

SEASONAL EFFICIENCY COMPARISONS

Seasonal efficiency SOURCE: SEDBUK DATABASE **Grant Vortex** Condensing Boiler Typical seasonal 92.7-97% 'standard' SEDBUK 'A' Typical seasonal oil-fired Boiler efficiency 'older 82-85.7% oil-fired Boiler SEDBUK 'C' 65-81.9% SEDBUK 'D' or le

SEDBUK RATINGS TABLE

90% and above	GRANT VORTEX	A	
86%-90%		В	
82%-86%		C	
78%-82%		D	
74%-78%		E	
70%-74%		F	
Below 70%		G	

View online at: www.sedbuk.com

The up to the minute guide to gross seasonal efficiencies of domestic boilers in the UK.

This leaflet is accurate at the time of printing but as Grant UK has a policy of continual improvement it may be superseded.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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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.

PLUMING

Condensing boilers operate at extremely high efficiency levels, producing cool flue gas temperatures, resulting in a 'plume' of vapour being visible at the flue terminal. This plume (steam) is a normal condition of condensing boiler operation and indicates that the appliance is working efficiently. As an alternative to a low level balanced flue kit, high level, or vertical kits are available, which moves the plume to a higher level.

FUEL

All burners are supplied factory set at the stated output for use on standard grade Kerosene – Class C2. Grant Vortex Condensing Boilers are not suitable for use with Class D gas oil.

INSTALLATION

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

GUARANTEES

The unique heat exchanger on Grant Vortex Condensing Boilers is covered by a 5-year guarantee. All other component parts of the boiler are guaranteed for 2 years from the date of purchase (excluding consumable items), 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 Vortex Condensing Boilers must be commissioned and the guarantee registration form returned to Grant UK.

AFTER SALES SERVICE

For peace of mind, all Grant central heating 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**



EFFICIENT HEATING SOLUTIONS

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 CONDENSING RANGE

UNIQUE OIL-FIRED
CONDENSING BOILERS
FOR INTERNAL AND EXTERNAL
INSTALLATIONS WITH OUTPUTS
FROM 15 TO 70kW













PRODUCTS AVAILABLE IN THIS RANGE:

GRANT VORTEX
KITCHEN MODELS

GRANT VORTEX KITCHEN
SYSTEM MODELS

GRANT VORTEX
UTILITY MODELS

GRANT VORTEX UTILITY
SYSTEM MODELS

GRANT VORTEX
OUTDOOR MODULES

GRANT VORTEX INDOOR AND OUTDOOR COMBINATION MODELS



GRANT COMPANY PROFILE

EFFICIENT HEATING SOLUTIONS

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 condensing technology. Today, Grant's range of Vortex oil-fired condensing boilers tops the Government SEDBUK Efficiency Database and is the market leading product in this sector.

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

A NEW APPROACH TO OIL-FIRED HEATING

The name 'Grant' has in recent years become synonymous with highly efficient oil-fired central heating appliances. Designs like the 'Multi Pass' boiler have achieved efficiency levels far in excess of any UK or European Standards and have helped thousands of homes to reduce their annual fuel bills. So it will come as no surprise to see Grant yet again leading the way with the introduction of the Grant Vortex oil-fired condensing boiler range.

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 after sales service for all of its customers.

WHY SHOULD YOU INSTALL AN ENERGY EFFICIENT BOILER?

A great deal of media coverage has been given to Global warming and the environmental damage caused by burning fossil fuels. There are many contributing factors, but one area that can make a significant difference and reduce the amount of harmful greenhouse gases in the atmosphere is to install a more efficient central heating boiler.

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 oil-fired condensing boiler, like the Grant Vortex, has been tested and approved to operate at very high efficiency levels, achieving a considerable reduction in harmful emissions.





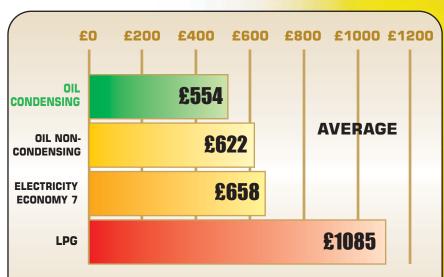
trophy.

CONDENSING TECHNOLOGY

WHAT IS A CONDENSING BOILER?

Condensing boilers differ from traditional boilers in that they are designed to capture heat normally lost through the flue system during the combustion process. Unlike traditional oil-fired boilers the Grant Vortex condensing boiler has a built-in stainless steel heat exchanger incorporating Grant's unique turbulator baffle system, which cools the gases to a point where the latent heat, normally lost to the atmosphere through the flue, can be usefully extracted. The additional energy recovered enables the boiler to operate continuously at much higher efficiency levels, resulting in lower heating and hot water running costs.

TYPICAL ANNUAL RUNNING COSTS COMPARISON*



*Figures reproduced with kind permission from OFTEC for a 3 bedroom house in the UK for the 5 years to 2005. Oil condensing figures are for a 3 year period to 2005.

REST ASSURED

When you order a Grant boiler and 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.





CONTENTS

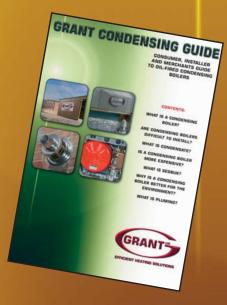
- 1 COMPANY PROFILE
- **2 CONDENSING TECHNOLOGY**
- GRANT VORTEX KITCHEN RANGES
- 5 GRANT VORTEX UTILITY RANGES
- **7** GRANT VORTEX OUTDOOR MODULE RANGES
- GRANT VORTEX INDOOR
 COMBINATION MODELS

CONDENSING GUIDE

Grant has produced a useful 'Condensing Guide' which answers the most commonly asked questions regarding oil-fired condensing boilers. To obtain a copy please contact our Sales Department on:

0870 7775553 or alternatively you can download from our website:

www.grantuk.com



GRANT UK 0870 7775553 2

GRANT VORTEX KITCHEN CONDENSING RANGE

GRANT VORTEX KITCHEN RANGE

The award winning Grant Vortex boiler range has, over the last few years, become the market leader in oil-fired condensing boilers, achieving gross seasonal efficiencies of between 94-95%. The Kitchen and System models were voted H&V Product Of The Year 2003 and have quickly become popular with both heating engineers and householders, setting the standard for oil-fired condensing boiler design.

As you would expect from a product with this pedigree, the Grant Vortex Kitchen Range is exceptionally quiet in operation, featuring the latest Riello burner technology. All models incorporate system diagnostics enabling easier setting and control of both the temperature and general operation of the boiler.

SEALED SYSTEM MODELS

All Sealed System versions include a factory fitted expansion vessel, filling loop, pressure gauge, automatic air vent, pressure relief valve and circulating pump, enabling boilers to be installed without the need for an expansion tank in the loft.

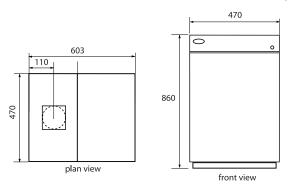
PROGRAMMER OPTION

A simple electronic programmer option is also available

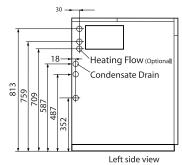
which can be plugged into a prewired slot on the boilers control panel.

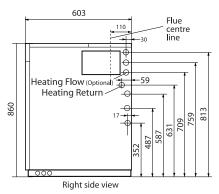
DIMENSIONS

GRANT VORTEX KITCHEN 15/26









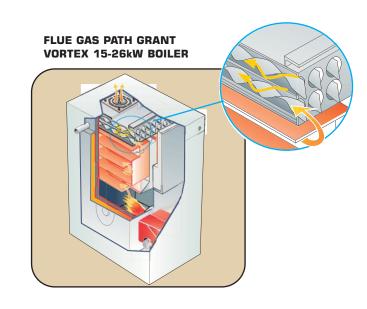
All dimensions in millimetres

BOILER CONNECTIONS

	KITCHEN MODELS	SYSTEM MODELS		
Model	15 - 26	15 – 26		
Output kW	15 to 26	15 to 26		
Output Btu/h	50 to 90,000	50 to 90,000		
Flow connection	22mm	22mm		
Return connection	22mm	22mm		
Cold Main	n/a	15		
Pressure Relief	n/a	15		
Condensate Pipe	22mm Plastic Plumbing Pipe			

NOTE 1: The boiler flow connection exits the casing on the left or right hand side. The return connection is located on the right and the condensate drain on the left.

NOTE 2: Grant Vortex kitchen boilers are suitable for fully pumped systems only.



GRANT VORTEX KITCHEN CONDENSING RANGE

Grant Vortex Kitchen Model

VORT1526

- System Temperature Gauge
- 2 Diagnostic Indicator Lights
- Boiler Thermostat
- Overheat Thermostat
- **5** Boiler ON/OFF Switch
- Optional Programmer Kit Position
- Front Service Access Door
- Riello RDB Burner
- Peversible Heating Flow (not shown)
- Heating Return
- Condensate Drain Point (not shown)



MODEL SHOWN VORT1526



MODEL SHOWN VORT1526S

Grant Vortex Kitchen Sealed System Model

VORT1526S



- System Temperature and Pressure Gauge
- Diagnostic Indicator Lights
- Boiler Thermostat
- 4 Overheat Thermostat
- Boiler ON/OFF Switch
- Optional Programmer Kit [shown fitted]
- 10 litre Expansion Vessel
- Riello RDB Burner
- Reversible Heating Flow (not shown)
- Heating Return
- Condensate Drain Point (not shown)

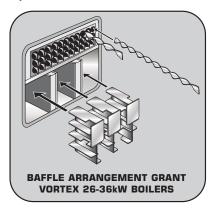
GRANT VORTEX UTILITY CONDENSING RANGE

THE GRANT VORTEX UTILITY RANGE

Following the success of the award winning Grant Vortex Kitchen range of condensing boilers, Grant have responded to customer demand by producing a competitively priced Utility version of this innovative product, with gross seasonal efficiencies between 93.6-97%. The new Grant Vortex Utility Range features the unique stainless steel condensing heat exchanger, used on the kitchen models, but has a simplified casing, control panel and pipework arrangement, making them the ideal choice for Utility room installations.

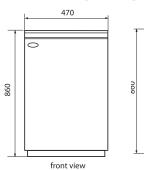
Outputs have increased to 70kW (240,000Btu/h) with the introduction of two larger utility models and by installing these in a modular arrangement (two or

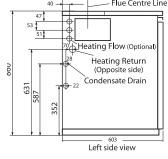
more) there is practically no situation which cannot be accommodated. As with the kitchen models, Sealed System variants of the Utility range are available in outputs up to 46kW, however, the larger models can be converted to sealed system operation, by adding a sealed system kit.



DIMENSIONS

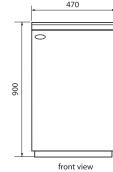
GRANT VORTEX 15-26 UTILITY

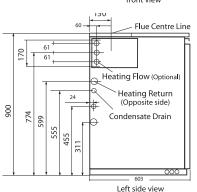




All dimensions in millimetres

GRANT VORTEX 26-36 UTILITY
GRANT VORTEX 36-46 UTILITY



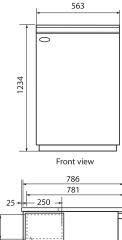


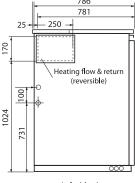
BOILER CONNECTIONS

	UTILITY MODELS				UTILITY SYSTEM MODELS			
Model	15-26	26-36	36-46	46-58	58-70	15-26S	26-36S	36-46S
Output kW	15 to 26	26 to 36	36 to 46	46 to 58	58 to 70	15 to 26	26 to 36	36 to 46
Output Btu/h	50-90,000	90-123,000	123-157,000	157-200,000	200-240,000	50-90,000	90-123,000	123-157,000
Flow connection	22mm	28mm	28mm	35mm	35mm	22mm	28mm	28mm
Return connection	22mm	28mm	28mm	35mm	35mm	22mm	28mm	28mm
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
Condensate Pipe	22mm Plastic Plumbing Pipe							

NOTE 1: The boiler flow connection exits the casing on the left or right hand side. The return connection is located on the right and the condensate drain on the left. NOTE 2: Grant Vortex Utility boilers are suitable for fully pumped systems only.

GRANT VORTEX 46-58 UTILITY
GRANT VORTEX 58-70 UTILITY





GRANT VORTEX UTILITY CONDENSING RANGE

Grant Vortex Utility Models

VTX1526	VTX2636
VTX3646	VTX4658
VTX5870	

- Boiler Thermostat
- 2 Overheat Thermostat
- 3 Boiler ON/OFF Switch
- 4 Front Service Access Door
- 5 Drain Cock
- 6 Riello RDB Burner
- Reversible Heating Flow (Not shown)
- 8 Heating Return
- 9 Condensate Drain (Not shown)



MODEL SHOWN VTX1526



MODEL SHOWN VTXS1526

Grant Vortex Utility Sealed System Models

VTXS1526

VTXS2636





- 2 Boiler ON/OFF Switch
- Boiler Thermostat
- Overheat Thermostat
- Expansion Vessel (Size varies depending on model)
- **6** Drain Cock
- Reversible Heating Flow
- 8 Heating Return
- Ondensate Drain (Not shown)
- Riello RDB Burner

GRANT UK 0870 7775553



GRANT VORTEX OUTDOOR CONDENSING RANGE

THE GRANT VORTEX OUTDOOR MODULE

Grant developed their first oil-fired Outdoor Module in 1986 and although the concept was new to the oil market, it quite quickly became a popular addition to Grant's boiler range. It is therefore appropriate that Grant has again taken the lead with the introduction of three new Grant Vortex Condensing oil-fired Outdoor Modules, with outputs between 15 and 46 kW (50-157,000Btu/h) and gross seasonal efficiencies of 95-97%.

UNIQUE FEATURES

This high efficiency Outdoor Module range has some unique features including multi-directional flueing options, high quality external powder coated paint

finish, built-in boiler frost protection, mains isolating switch and a test switch.

SEALED SYSTEM AND COMBI MODELS

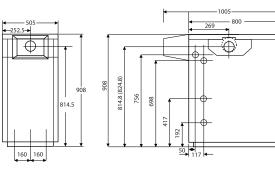
Outdoor condensing modules can be converted to sealed system operation by purchasing a preassembled kit from Grant UK. The sealed system kit includes an expansion vessel (size varies), automatic air vent, pressure relief valve and circulating pump. A filling loop and pressure gauge are also supplied as part of the kit. These can be fitted within the module casing, or ideally in a convenient site within the building, located between the cold main and central heating return. Outdoor condensing combi modules are supplied with a factory fitted sealed system kit and

share most of the features of the indoor combinance, (see pages 9 and 10).

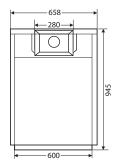
DIMENSIONS

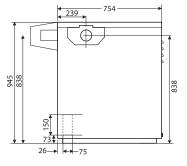
All dimensions in millimetres

GRANT VORTEX OUTDOOR 15-26 26-36 36-46



GRANT VORTEX OUTDOOR COMBI 26 and 36





BOILER CONNECTIONS

	OUTDOOR MODULES			OUTDOOR	COMBI'S
Model	15-26	26-36	36-46	26	36
Output kW	15 to 26	26 to 36	36 to 46	26	36
Output Btu/h	50-90,000	90-123,000	123-157,000	90,000	123,000
Flow connection	22mm	28mm	28mm	22mm	28mm
Return connection	22mm	28mm	28mm	22mm	28mm
Cold Water In	n/a	n/a	n/a	15mm	22mm
Hot Water Out	n/a	n/a	n/a	15mm	22mm
Pressure Relief	n/a	n/a	n/a	15mm	15mm
Condensate Pipe	3/4" (19mm) Plastic 'Overflow' Pipe				

NOTE: 1) All boiler connections can be positioned to the left or right of the appliance. 2) Grant Vortex Condensing Modules are suitable for fully pumped systems only.





Optional conventional flue starter elbow (see Green Flue System)





GRANT UK 0870 7775553

GRANT VORTEX OUTDOOR CONDENSING RANGE

Grant Vortex Outdoor Modules

VTXOM1526

VTXOM2636

VTXOM3646

- Control Panel (Incorporating Frost Stat)
- Optional Side Flue Exit
- Optional Pipe Entry Points
- 4 Riello RDB Burner
- Mains Isolating Switch
- Test Switch



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







MODEL SHOWN VTXOM1526 (FRONT VIEW)

Grant Vortex Outdoor Combi Modules

VTXOMCOMBI26 VTXOMCOMBI36

- Built-in system pressure gauge
- 2 Low pressure warning neon
- 3 Electronic boiler thermostat
- Expansion Vessel (Size varies depending on model)
- 5 Zinc plated pipes
- Blending valve
- Pump (hot water circuit)
- Flexible filling loop
- Riello RDB burner

TYPICAL HOT WATER PERFORMANCE

VTXOMCOMBI26*

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

VTXOMCOMBI36*

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

MAINS WATER PRESSURE

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

*Hot water flow rate is dependent on mains pressure available. Figures based upon an incoming mains water temperature of 10°C.







MODEL SHOWN VTXOMCOMBI26 (rear view)



Optional Grant RS Kit Digital room thermostat (all models)



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



Flow, Return, Hot and Cold valved connections

GRANT UK 0870 7775553



GRANT VORTEX COMBI CONDENSING RANGE

All dimensions

in millimetres

SEDBUK 'A' RATED COMBI'S

The Grant Vortex Condensing Combi's are available in two sizes, 26kW and 36kW, 'A' Rated with efficiencies of 92.2% and 94.2% respectively. The boilers are extremely compact in size and have a number of features not usually found on oil combination boilers.

UNIQUE DESIGN

Both of the new Grant UK combi boilers feature much larger plate heat exchangers which, due to their low water content and larger surface area, vastly increase the hot water performance available. Mixing valves are pre-set at 50° C, controlling accurately the hot water draw off temperature

from the boiler. Grant Vortex condensing combi's feature a low system pressure cut off switch, enabling the combi to protect itself in the unlikely event of system water loss. There are also two very accurate electronic temperature controls which allow the boiler to operate in condensing mode on central heating, whilst maintaining its instant hot water production.

A WINNING COMBINATION

The heat exchangers on the new condensing combi's were developed from the award winning Grant Vortex kitchen range and are fitted with the latest low NOx Riello RDB Plus burner.

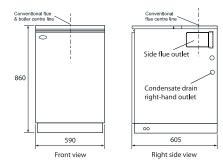
BOILER CONNECTIONS

	CONDENSING COMBI MODELS		
Model	26	36	
Output kW	26	36	
Output Btu/h	90,000	123,000	
Flow connection	22mm	28mm	
Return connection	22mm	28mm	
Cold Water In	15mm	22mm	
Hot water Out	15mm	22mm	
Pressure Relief	15mm	15mm	
Condensate Pipe	22mm Plastic Plumbing Pipe		

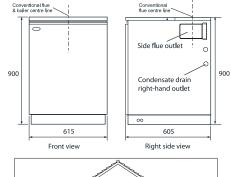
NOTE: 1) All boiler connections can be positioned to the left or right of the appliance. 2) Grant Vortex Combi Models are suitable for fully pumped systems only.

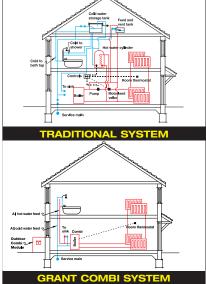
DIMENSIONS

THE COMBI 26 DIMENSIONS



THE COMBI 36 DIMENSIONS





TYPICAL HOT WATER PERFORMANCE VTXCOMBI26*

17 litres per minute at an average temperature of 50°C.

Recovery time 4 minutes approx. Based upon 100 litre draw off.

VTXCOMBI36*

20 litres per minute at an average temperature of 50° C.

Recovery time 3 minutes approx. Based upon 100 litre draw off.

MAINS WATER PRESSURE

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

*Hot water flow rate is dependent on mains pressure available. Figures based upon an incoming mains water temperature of 10° C.

GRANT VORTEX COMBI CONDENSING RANGE

Grant Vortex Combi Models

VTXCOMBI26

- Optional Timer Kit Position
- Store Isolation Switch
- 3 Low Pressure Warning Neon
- 4 Electronic Boiler Thermostat
- 5 12 litre Expansion Vessel
- Zinc Plated Pipes
- Blending Valve
- Pump (Hot Water Circuit)
- Flexible Filling Loop
- 35 Plate Heat Exchanger
- U Primary Store Drain Cock
- 12 Riello RDB Burner
- 13 Front Service Access







Optional plug-in electronic or mechanical timers



MODEL SHOWN VTXCOMBI26



Grant Vortex Combi Models

VTXCOMBI36

- Optional Timer Kit Position
- Store Isolation Switch
- 3 Low Pressure Warning Neon
- 4 Electronic Boiler Thermostat
- 5 14 litre Expansion Vessel
- 6 Zinc Plated Pipes
- Blending Valve
- Pump (Hot Water Circuit)
- 9 Flexible Filling Loop
- 35 Plate Heat Exchanger
- Primary Store Drain Cock
- 12 Riello RDB Burner
- Multi-directional fluing







Optional Grant RS Kit Digital room thermostat (all models)



MODEL SHOWN VTXCOMBI36