

## **MICROGENUS II**

**WALL-HUNG ELECTRONIC IGNITION GAS COMBINATION BOILER**



**minimum space**  
**MAXIMUM COMFORT**





# STYLISH, COMPACT AND POWERFUL just 700 x 400 x 300 mm



**microGENUS II** combines the most advanced heating and domestic hot water production technologies in one compact unit, with tiny dimensions, of just, 700 x 400 x 300 mm, it can be installed almost anywhere.

Reliable, quiet, durable, and hard working, this boiler looks great and offers three different outputs to suit most needs - with D.H.W. flow rates up to 12.7 l/min at  $\Delta T = 35^{\circ}\text{C}$ . This backed up by a comprehensive 2 year guarantee that can be extended up to 5 years, makes **microGENUS II** unbeatable in performance and peace of mind.



with the option to  
extend up to 5  
years

## **microGENUS II - DEVELOPED FROM OVER 40 YEARS OF ARISTON QUALITY**

The **microGENUS II** is the successor to one of the UK's most popular combination boilers the **microGENUS**. **microGENUS II** is even closer to your needs because it has been developed from **Ariston's** extensive experience in providing comfort to millions of homes around the world. One of Europe's leading brands for over 40 years. The manufacturing process is certified to **ISO 9001** standard guaranteeing the best in quality. Manufactured on state-of-the-art production lines each process is constantly tested, checked and subjected to strict **Quality Control** to guarantee the long-life and the absolute reliability of every boiler. For any further needs that may arise after a boiler's installation, Ariston places the best in technical support and customer service at your disposal, offering swift and highly qualified assistance.

## **THE CHARACTERISTICS OF LARGER BOILERS WITHOUT COMPROMISES**

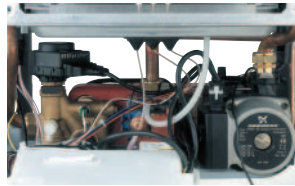
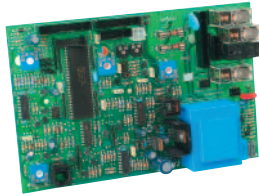
With the **microGENUS II**, Ariston has increased the level of quality and performance that is normally achieved traditionally by larger boilers. It is decidedly different from others on the market that often need to sacrifice quality or performance in order to reduce dimensions.



**Ariston works  
to Benchmark standards**

# **microGENUS II** - COMPACT, LIGHT AND EASY TO INSTALL

As a part of Ariston's continuous attention to installer requirements, the best technical and design solutions have been employed in the **microGENUS II**, making installation easier even in the tightest of spaces. Its small size and low weight allows for easy handling by a single person. The flue system installation has also been simplified, saving installers valuable time, improving competitiveness and efficiency.



**5 year guarantee  
on D.H.W. plate  
heat exchanger**

## **microGENUS II** MAKES SERVICING EASY

Also periodic servicing and checks are easier and quick, thanks to the combustion analysis device, easy access to all components and integrated innovative system diagnostics.

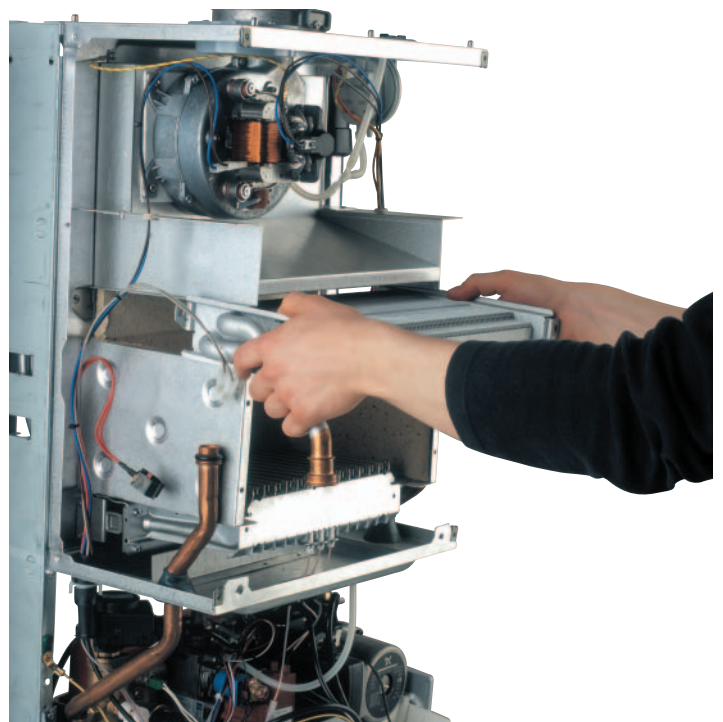
**microGENUS II** can be serviced and worked on easily and has been designed to enable access to all components from the front eliminating the need for side access. Outlets for the analysis of combustion products and the revolutionary new P.C.B. with microprocessor allows boiler functions to be tested via the built-in digital display.

**microGENUS II** knows "how to look after itself"; the anti-frost device is activated when the temperature of the water in the heating circuit is low, whilst the anti-scale device prevents the excessive rising of the temperature of domestic hot water.

In the same way the anti-pump seizing device allows the boiler to be ready to function after long periods of inactivity.

## **microGENUS II** INSTALLERS BENEFITS:

- Quick and easy installation
- Integral digital diagnostic display
- Light weight: lightest in its class
- 3 outputs available
- High D.H.W. flow rates
- Combustion analysis device
- All accessories available for original **microGENUS** also available for **microGENUS II**
- Easy to service and maintain: all components accessible from the front of boiler
- Simple to use control panel with hot water and heating temperature display as well as diagnostics
- Combustion analysis device
- P.C.B with microprocessor incorporating auto diagnostics
- Integral digital diagnostic display
- D.H.W. stainless steel plate heat exchanger guaranteed for 5 years
- 2 year manufacturer's guarantee





# USER-FRIENDLY AND INTERACTIVE with the unique control panel and built-in diagnostics

## FUNCTIONALITY WITH EASE OF USE

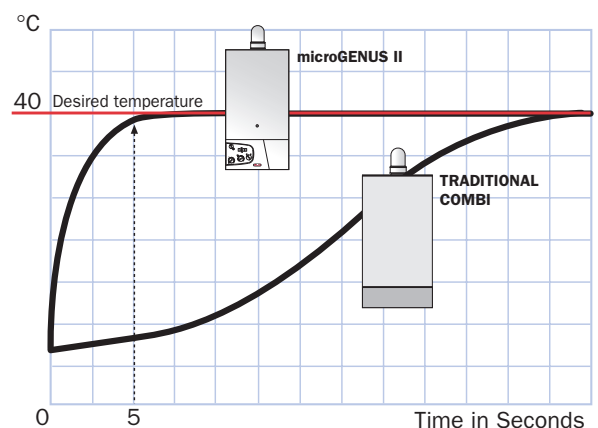
All the functions needed by the user, are simple to program and can be found on one unique easy to use control panel. Temperature adjustment knobs allow for subtle adjustments of hot water or central heating. An economy/comfort switch allows you to immediately select instant hot water at any outlet. The digital display indicates the boiler's operating status and shows the temperature of heating and hot water. In the unlikely event of a fault an error code will be displayed corresponding with fault descriptions in the Installation and Servicing manual.



## COMFORT FUNCTION ensures hot water in 5 seconds

Switching to Comfort produces hot water at outlets much faster than a traditional combination boiler. This is possible because when the Comfort function is selected, the hot water is maintained at a temperature between 34°C and 40°C, allowing instantaneous (<5 sec.) hot water supply.

Also the electronic temperature control guarantees that the domestic hot water is always supplied at the desired temperature, without detectable temperature variations.



## *microGENUS II* USER BENEFITS :

- Simple to use
- Stylish design - looks good anywhere
- High D.H.W. flow rates up to 12.7 l/min (2.8 gal/min) (31 kW - 105,800 Btu/h version)
- Low volume, saving valuable space in the home
- Copious amounts of hot water on demand
- Comfort switch (pre-heat function) guaranteeing hot water at outlets in less than 5 seconds
- Simple to use control panel with hot water and heating temperature display
- Built-in mechanical time clock
- Enabled for the addition of chronological thermostats or a digital time clock
- High efficiency: lower fuel bills
- Comprehensive 2 year guarantee
- Guarantee extendable up to 5 years

### WALL-HUNG GAS COMBINATION BOILER ROOM SEALED COMBUSTION CHAMBER



- Compact dimensions (300x400x700 mm)
- Available in 3 outputs of 24.6 kW - 83,900 Btu/h, 28.1 kW - 95,800 Btu/h or 31.0 kW - 105,800 Btu/h
- Fully modulating in C.H./D.H.W. with an accuracy to  $\pm 1^\circ\text{C}$
- Auto-diagnostic system and integrated control in P.C.B.
- Government Standard Assessment Procedure (SAP) efficiency rating up to 80.3%
- Comfort switch (pre-heat function) guaranteeing hot water at the outlet in less than 5 seconds
- High D.H.W. flow rates up to 12.7 l/min (2.8 gal/min) (31kW - 105,800 Btu/h version)
- Anti-frost device
- Anti-scale devices
- Anti seizing device for the pump
- Built-in automatic by-pass
- Built-in mechanical time clock
- Coaxial flue system up to 4 m, twin pipe flue system up to 30 m
- Split exhaust and intake pipes for built-in combustion analysis
- Optional outdoor sensor: regulates the heating temperature automatically
- D.H.W. stainless steel plate heat exchanger guaranteed for 5 years
- 2 year manufacturer's guarantee
- Guarantee extendable up to 5 years



P.C.B. with microprocessor



Automatic By-pass



D.H.W. plate heat exchanger



High head pump



Fully modulating



Electronic Ignition



C.H temp adjustment



D.H.W temp adjustment



Combustion analysis device



Anti-frost device



IPX4D



Anti-scale device



Insufficient system pressure shutdown

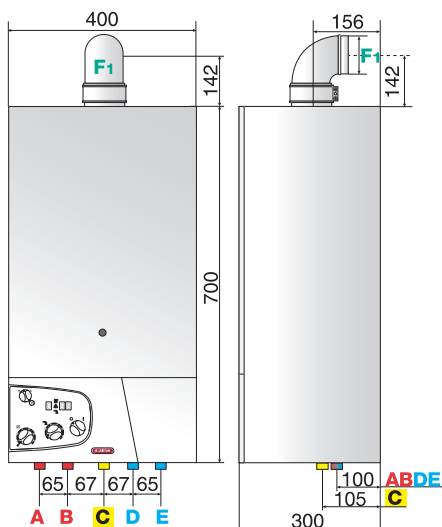


Integral auto-diagnostics

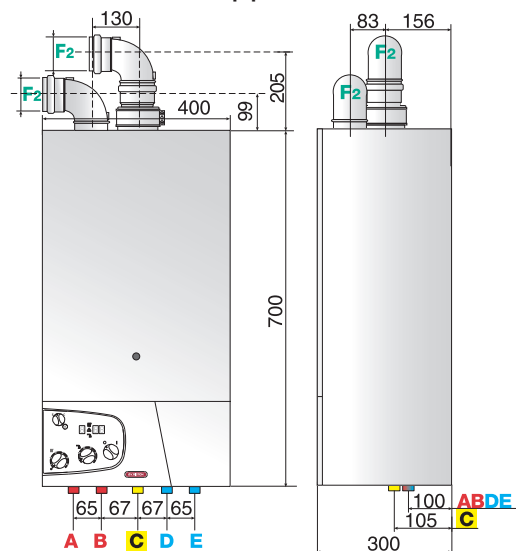
### CLEARANCE DIMENSIONS - PIPE FITTINGS - EXHAUST OUTLETS

	<b>A</b> Central heating flow	<b>B</b> Domestic hot water outlet	<b>C</b> Gas inlet	<b>D</b> Domestic hot water inlet	<b>E</b> Central heating return	<b>F</b> Flue ( $\varnothing$ mm)
<b>MICROGENUS II 24 MFFI</b>	$\varnothing 3/4"$ BSP	$\varnothing 1/2"$ BSP	$\varnothing 3/4"$ BSP	$\varnothing 1/2"$ BSP	$\varnothing 3/4"$ BSP	<b>F1</b> 60/100 <b>F2</b> 80/80
<b>MICROGENUS II 28 MFFI</b>	$\varnothing 3/4"$ BSP	$\varnothing 1/2"$ BSP	$\varnothing 3/4"$ BSP	$\varnothing 1/2"$ BSP	$\varnothing 3/4"$ BSP	<b>F1</b> 60/100 <b>F2</b> 80/80
<b>MICROGENUS II 31 MFFI</b>	$\varnothing 3/4"$ BSP	$\varnothing 1/2"$ BSP	$\varnothing 3/4"$ BSP	$\varnothing 1/2"$ BSP	$\varnothing 3/4"$ BSP	<b>F1</b> 60/100 <b>F2</b> 80/80

Coaxial exhaust



Twin pipe exhaust



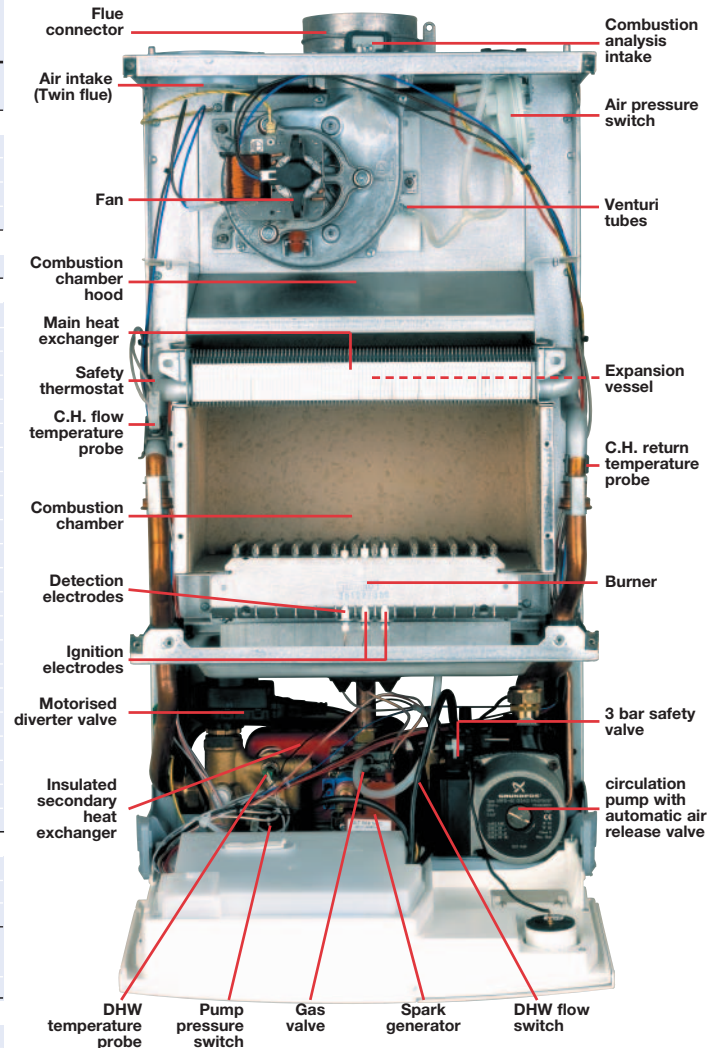
## TECHNICAL DATA

		24 MFFI	28 MFFI	31 MFFI
<b>Category</b>		II 2H3+	II 2H3+	II 2H3+
<b>Type</b>		C*	C*	C*
<b>POWER</b>				
Heat input min.	kW-Btu/h	11.0-37,500	12.0-40,900	14.0-47,700
Heat input max.	kW-Btu/h	26.5-90,400	30.2-103,000	33.5-114,300
Heat output min.	kW-Btu/h	10.0-34,100	10.7-36,500	12.6-43,000
Heat output max.	kW-Btu/h	24.6-83,900	28.1-95,800	31.0-105,800
<b>EFFICIENCY</b>				
SEDBUK Rating	Band	D	D	D
<b>CHARACTERISTICS</b>				
Heat loss to the casing ( $\Delta T=50^{\circ}\text{C}$ )	%	0.1	0.4	1.1
Heat loss through the flue when burner on	%	6.9	67	6.5
Heat loss through the flue when burner off	%	0.4	0.4	0.4
Maximum exhaust discharge (Natural Gas)	kg/h	61.9	65.0	74.3
Residual discharge head	mbar	1.65	1.40	1.60
Consumption at nominal capacity G20 <sup>(1)</sup>	m <sup>3</sup> /h	2.80	3.19	3.54
Consumption at nominal capacity G30-G31 <sup>(1)</sup>	kg/h	2.09/2.06	2.38/2.34	2.64/2.60
Exhaust gas temperature at nominal capacity	$^{\circ}\text{C}$	117.6	123.8	132.1
Minimum ambient temperature	$^{\circ}\text{C}$	5	5	5
Pressure loss through boiler (max) ( $\Delta T=20^{\circ}\text{C}$ )	mbar	200	200	200
Residual head of system	bar	0.25	0.25	0.25
D.H.W. minimum flow rate	l/min	2.5	2.5	2.5
Domestic hot water pressure maximum	bar	6	6	6
Domestic hot water pressure minimum	bar	0.2	0.2	0.2
Built-in expansion vessel capacity	l	6	6	6
Built-in expansion vessel pre-charged vessel	bar	1	1	1
Maximum water content of system	l	130	130	130
Maximum heating pressure	bar	3	3	3
Gas inlet pressure - Natural gas (G20)	mbar	20	20	20
Gas inlet pressure - LPG (G30-G31)	mbar	28-30/37	28-30/37	28-30/37
Weight	kg	31	34	TBA
G.C. number		47-116-25	47-116-26	47-116-27
<b>PERFORMANCE</b>				
Central heating temperature maximum	$^{\circ}\text{C}$	82	82	82
Central heating temperature minimum	$^{\circ}\text{C}$	38	38	38
D.H.W. temperature maximum	$^{\circ}\text{C}$	56	56	56
D.H.W. temperature minimum	$^{\circ}\text{C}$	36	36	36
D.H.W. flow rate $\Delta T=35^{\circ}\text{C}$	l/min	10.1	11.5	12.7
D.H.W. flow rate $\Delta T=35^{\circ}\text{C}$	gal/min	2.2	2.5	2.8
<b>ELECTRICAL DATA</b>				
Electrical supply	V/Hz	230/50	230/50	230/50
Power consumption	W	125	148	165
Protection grade of electrical system	IP	X4D	X4D	X4D
Internal fuse rating		FAST 2 AT	FAST 2 AT	FAST 2 AT

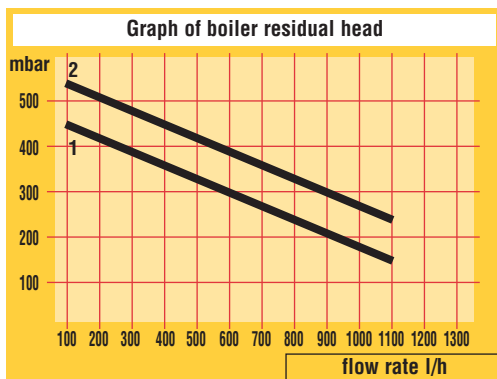
C\*: C12, C32, C42, C52, C82; <sup>(1)</sup>15 $^{\circ}\text{C}$ , 1013 mbar

\*Calculated at 70% maximum output

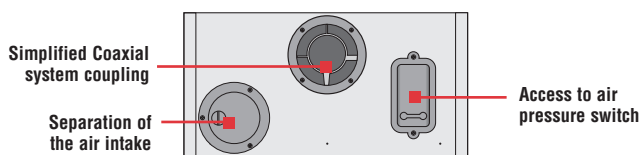
## MICROGENUS II 31 MFFI



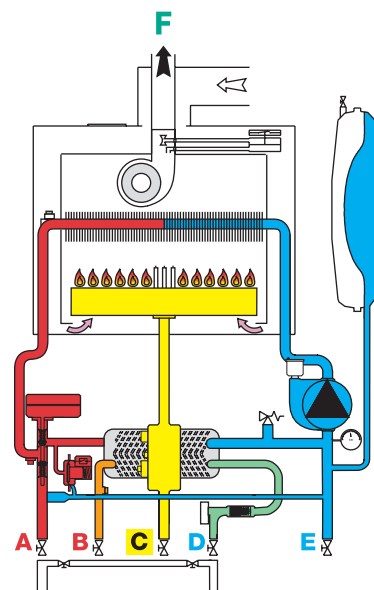
## SCHEMATIC



1 24 kW model  
2 28 kW model  
3 31 kW model TBA



## ROOM-SEALED FAN FLUE 24 MFFI - 28MFFI - 31 MFFI



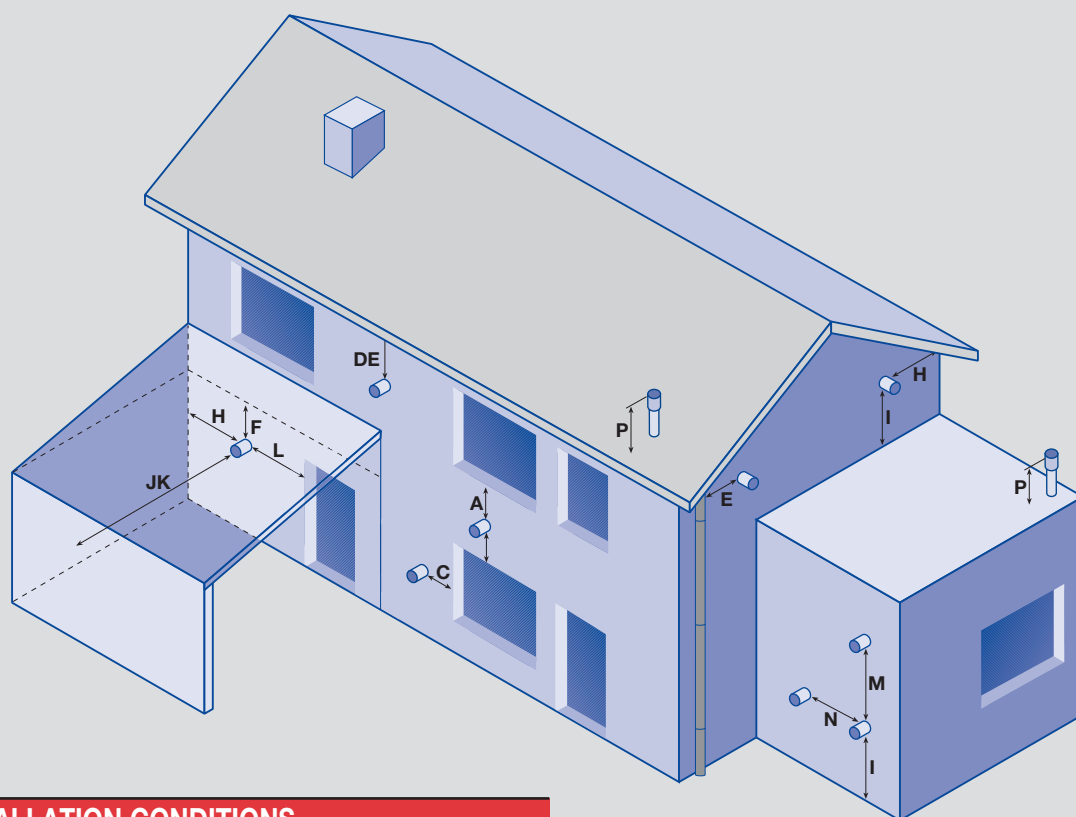


# FLUE PIPE ACCESSORIES - EASY INSTALLATION WITH UNRIVALED FLEXIBILITY

Ariston boilers are designed to be completely adaptable to every possible flue situation that may be encountered in boiler installation.

The need for alteration to flue components is almost completely eliminated, making installation of the boiler quick and easy.

It is possible to site flue terminals in a variety of positions in accordance with BS5440-1:2000.



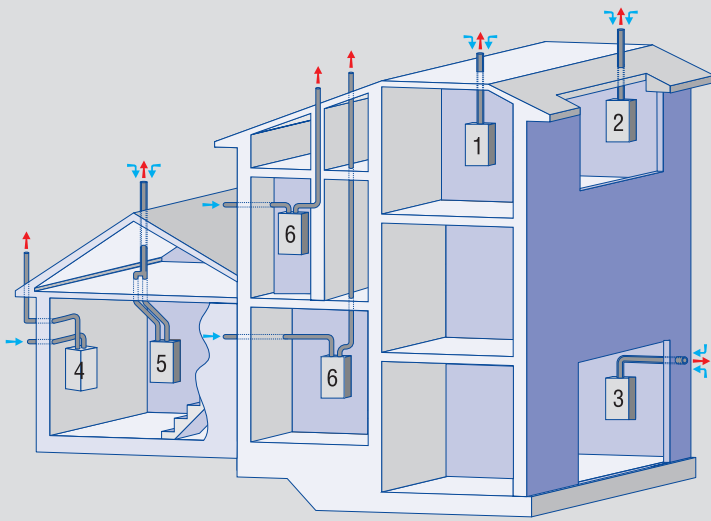
## INSTALLATION CONDITIONS

<b>TERMINAL POSITION</b>	<b>mm</b>
<b>A</b> Directly below an opening, air brick, opening windows, etc	300
<b>B</b> Above an opening, air brick, opening windows, etc	300
<b>C</b> Horizontally to an opening, air brick, opening windows, etc	300
<b>D</b> Below gutters, soil pipes or drain pipes	75
<b>E</b> Below eaves	200
<b>F</b> Below balconies or car port roof	200
<b>G</b> From vertical drain or soil pipe	150
<b>H</b> From an internal or external corner	300
<b>I</b> Above ground roof or balcony level	300
<b>J</b> From a surface facing the terminal	600
<b>K</b> From a terminal facing the terminal	1200
<b>L</b> From an opening in the car port (eg door, window) into the dwelling	1200
<b>M</b> Vertically from a terminal on the same wall	1500
<b>N</b> Horizontally from a terminal in the same wall	300
<b>P</b> Fixed by use of terminal and matched flashing plate	-

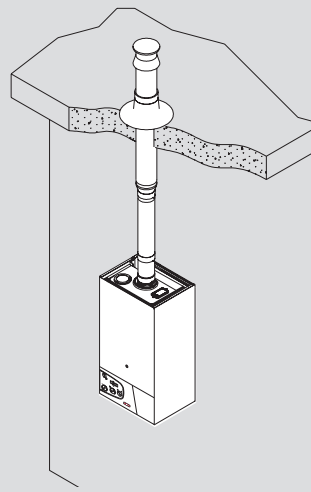


**Coaxial system:  
up to 4 m**

**Twin pipe system  
up to 30 m**

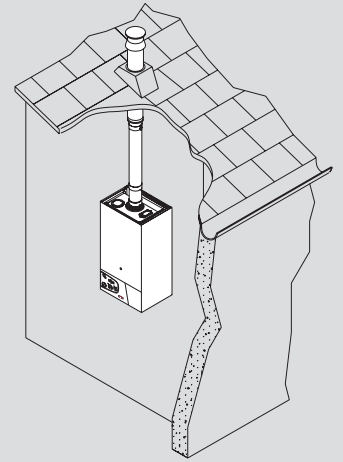


**TYPE 1 Coaxial System**



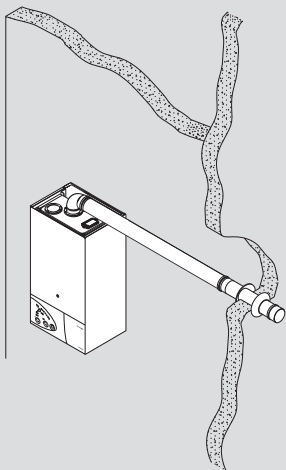
Vertical installation with coaxial piping on a flat roof.

**TYPE 2 Coaxial System**



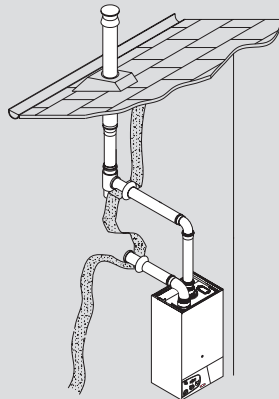
Vertical installation with coaxial piping on a pitched roof.

**TYPE 3 Coaxial System**



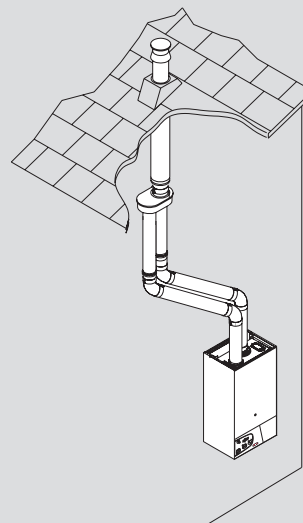
Horizontal installation with coaxial piping.

**TYPE 4 Twin pipe system**



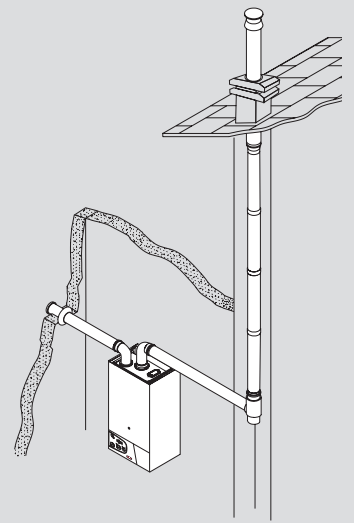
Installation with two separate pipes - exhaust on a pitched roof, air inlet through a wall.

**TYPE 5 Twin pipe system**



Installation with two separate pipes - exhaust and air inlet on a pitched roof via a coaxial adaptor.

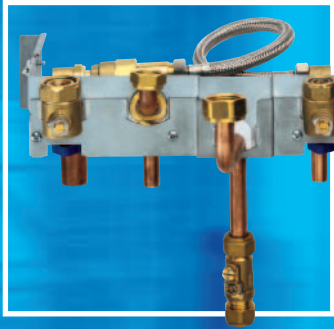
**TYPE 6 Twin pipe system**



Installation with two separate pipes - exhaust via flue duct, air inlet through a wall.



# ACCESSORIES AND SPARE PARTS ENGINEERED FOR PERFECT INSTALLATION



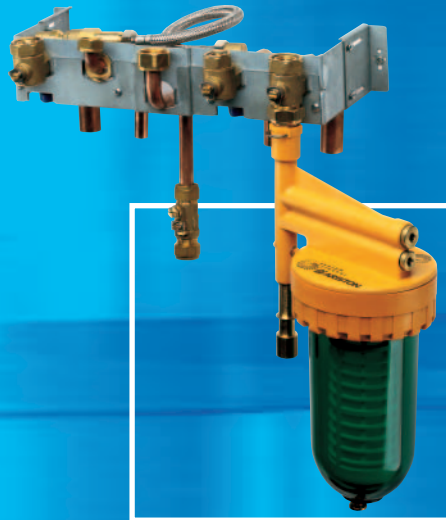
## **JIG-KIT** Supplied within the boiler as standard

The jig-kit makes installation easier because it allows you to fill the system even without the boiler fitted. It is equipped with 4 isolation valves: 2 for the heating circuit, 1 for the domestic water system and one for the gas.

The system return isolation valve can be connected to the system cleaner using the cap provided. The bracket that holds the valves can be positioned in two ways depending on whether installation is with or without the rear-piping chassis, and allows small adjustments for irregular walls.

The kit is supplied with:

- double non-return valves on the filling loop for filling the system.
- Copper tail pipes to ease soldering to the system piping.



## **SYSTEM CLEANER**

A practical accessory for cleaning the heating system.

It is simple to use: connect the system cleaner to the system return isolation valve, open the system return isolation valve, switch on the boiler, allow the pump to run for the necessary time then remove the system cleaner from the kit.

The filter provided is made up of a removable cartridge which absorbs any impurities in the system.

This allows the flushing of a new heating system without the impurities damaging the boiler components.

The system cleaner can also be used to add chemical additives such as cleansers and inhibitors.



## **REAR-PIPING CHASSIS**

Allows easy installation in situations where the system pipes are required to run up the rear of the boiler.

The rear-piping chassis consists of a bracket on which the boiler is hung, this has two flanks that extend the side panel of the boiler chassis.

Assemble by just bringing forward the valve kit and connecting the pipes.

The rear-piping chassis kit includes the pipe work elements for connection to the system.



### ANTI-THEFT DEVICE

Protects the boiler from theft and can be assembled in two ways: with or without the rear-piping chassis. The simple assembly instructions are included in the jig-kit and on the anti-theft device itself.

### JIG-KIT COVER

To conceal the pipe-work or jig-kit below the boiler a specially designed cover is available. The cover is simply and easily mounted to the bottom of the boiler.

### DIGITAL TIME CLOCK

The addition of a 7 day digital time clock allows the user to program the central heating to operate in conjunction with their lifestyle and weekly routine. It is possible to set the boiler to turn on and off up to 20 preset times during the week: allowing users to differentiate setting between weekdays and the weekend for example. It is also possible to override the automatic settings and operate the boiler manually at any time.

### OUTDOOR SENSOR

**An optional accessory to optimise comfort and efficiency**

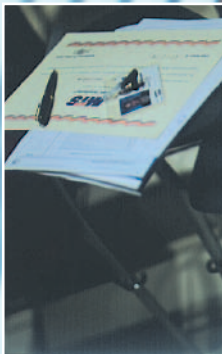
The **microGENUS II** outdoor temperature sensor can increase both comfort and energy efficiency. The sensor works in conjunction with the advanced microprocessor to monitor outside temperatures and conditions assessing the thermal power requirements. Increasing power when cold, decreasing power when warmer therefore increasing overall system efficiency.

# ARISTON QUALITY PRODUCTS EXCEPTIONAL SERVICE



## REGIONAL TRAINING CENTRES

- Plymouth
- High Wycombe
- Gt. Manchester



## COMPREHENSIVE TRAINING

Programmes across the entire Ariston product range covering all theoretical and practical aspects. Designed for commercial heating installers, merchants and independent gas-heating service organisations: courses are offered at 3 fully equipped training centres in the UK. In addition permanent training facilities are available at a number of technical colleges nationwide.

## TECHNICAL HOT LINE

Immediate and effective technical assistance is only a phone call away. Assistance is also available for any information or advice on the product most suitable for your needs and the requirements of your system installation.

## PROFESSIONAL SERVICE

Ariston service technicians are swift and prepared for any eventuality. They offer you and your customers a high level of assistance, comprising the best technical, logistic and human resources available. Ariston invests a great deal in this field to guarantee a decisive advantage that others cannot offer.



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