

MICROSYSTEM

WALL-HUNG GAS SYSTEM BOILER



MICROSYSTEM IMPROVES
THE WAY OF LIFE
IN THE HOME



MICROSYSTEM IS A BOILER WITH MANY ADVANTAGES

BORN FROM THE EXPERIENCE OF ARISTON IN BOILERS AND WATER HEATERS

Thanks our extensive experience in the production of boilers and water heaters Ariston has developed a new model of gas boiler considering your way of living in the home. The *microSYSTEM* enables the traditional combination of a hot water storage cylinder and separate heating boiler, but adopts the “unvented” principle (eliminating the need for loft storage tanks). Thus creating the most effective system for you with excellent performances, small dimensions and extreme simplicity.

BENEFITS

- Easy to install and cost effective
- Saves both energy and running costs
- No loft storage required
- A balanced increase in pressure with no need for booster or shower pumps
- Fresh drinking water available from all cold taps
- Reduced pipe runs and therefore less noise
- Reduced risk of freezing and water damage
- Offers a wider choice of bathroom, kitchen and shower fittings



**Ariston works
to Benchmark standards**

MICROSYSTEM CUTS POWER CONSUMPTION

The reduction of gas consumption is one of the greatest benefits that the *microSYSTEM* can offer: it allows you to save power whilst maintaining a high level performance. This is made possible by the Energy Saving System option on the control dial which enables the user to limit the output to 70%.

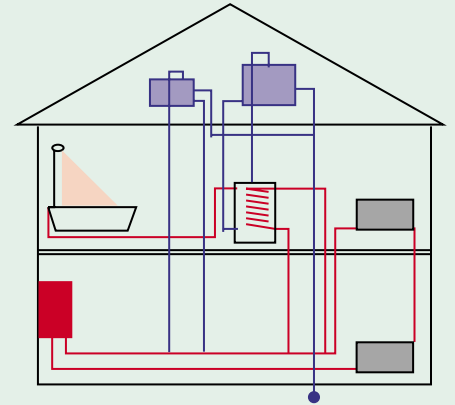
MICROSYSTEM OFFERS ABSOLUTE HYGIENE

The *microSYSTEM* assures maximum Hygiene because unlike the traditional vented system no foreign body or micro-organism can enter your domestic water system. Thus you can assure your family that the same quality of water from the mains supply is available at all taps in the house.

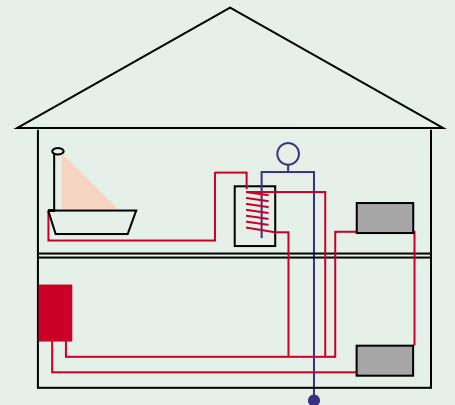
UNVENTED CYLINDER RANGE

Ariston cylinders are manufactured by the MTS Group the world-leader in the production of unvented cylinders. The Ariston range of indirect unvented cylinders is the ideal partner to the *microSYSTEM* boiler. Two versions of Ariston cylinders are available the 'Contract' and 'Comfort' with capacities from 125 to 300 litres they are suitable for both domestic and light commercial use.

TRADITIONAL VENTED INDIRECT SYSTEM



UNVENTED INDIRECT SYSTEM



MICROSYSTEM RANGE

The *microSYSTEM* boiler is available in four outputs: 10, 15, 21 & 28 kW. All models have compact 'micro' dimensions of 700 x 400 x 300 mm. The boiler also features as standard automatic bypass and splash proof controls and electronic components. The *microSYSTEM* features a built in pump and expansion vessel this reduces the amount of pipe work required and eliminates the need for an external pump and expansion vessel. The *microSYSTEM* is the ideal solution for any heating system, be it a heating only system or for the production of domestic hot water via a suitable unvented cylinder or traditional vented cylinder.



WALL-HUNG GAS SYSTEM BOILER ROOM-SEALED COMBUSTION CHAMBER

- From 10 kW - 35,000 Btu/h to 28 kW - 95,000 Btu/h room sealed chamber system boiler
- Compact dimensions: 700x400x300 mm
- Weight: from 29.5 to 32 kg
- Electronic ignition
- High performance: High efficiency
- Government Standard Assessment Procedure (SAP) efficiency rating up to 80.4%
- Built-in expansion vessel
- Built-in pump
- Built-in frost thermostat
- Automatic by-pass
- Electric protection: IP X4D
- Connection kit with built-in filling loop supplied as standard
- LPG version available

ACCESSORIES

- Rear piping chassis
- System cleaner
- Mechanical and digital time clocks



P.C.B. adjustment



Automatic by-pass



High head pump



High efficiency



Anti-frost device



IP X4D



Insufficient system pressure shutdown



C.H. Temp adjustment

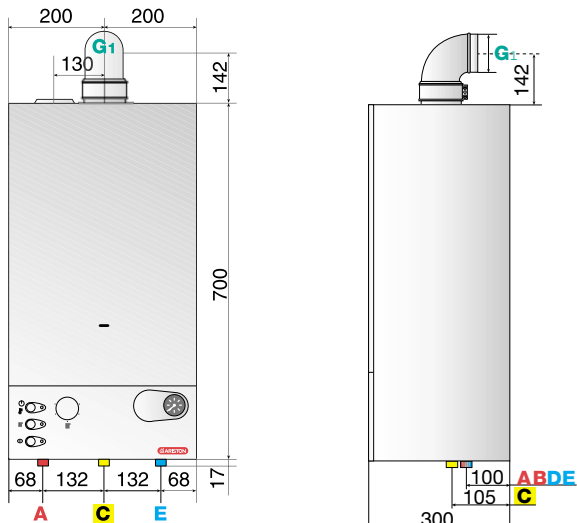


Electronic ignition

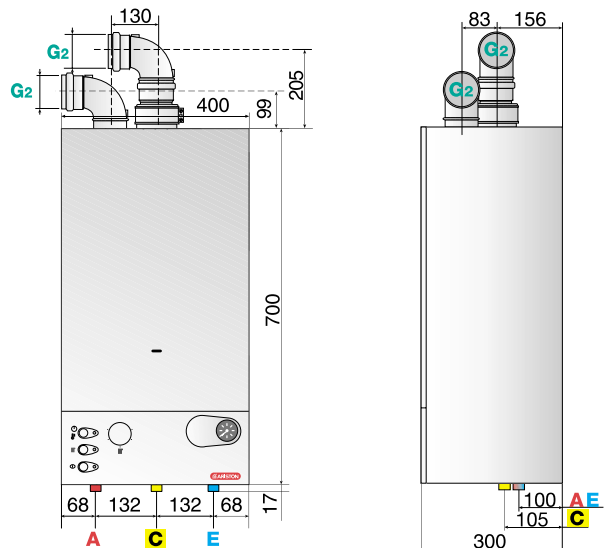
CLEARANCE DIMENSIONS - PIPE FITTINGS - EXHAUST OUTLETS

	A Central heating flow	E Central heating return	C Gas inlet	G Exhaust outlets
MICROSYSTEM 10 RFFI	Ø 3/4" BSP	Ø 3/4" BSP	Ø 3/4" BSP	G1 Ø 60/100
MICROSYSTEM 15 RFFI	Ø 3/4" BSP	Ø 3/4" BSP	Ø 3/4" BSP	G1 Ø 60/100 - G2 Ø 80
MICROSYSTEM 21 RFFI	Ø 3/4" BSP	Ø 3/4" BSP	Ø 3/4" BSP	G1 Ø 60/100 - G2 Ø 80
MICROSYSTEM 28 RFFI	Ø 3/4" BSP	Ø 3/4" BSP	Ø 3/4" BSP	G1 Ø 60/100 - G2 Ø 80

Coaxial exhaust



Twin pipe exhaust

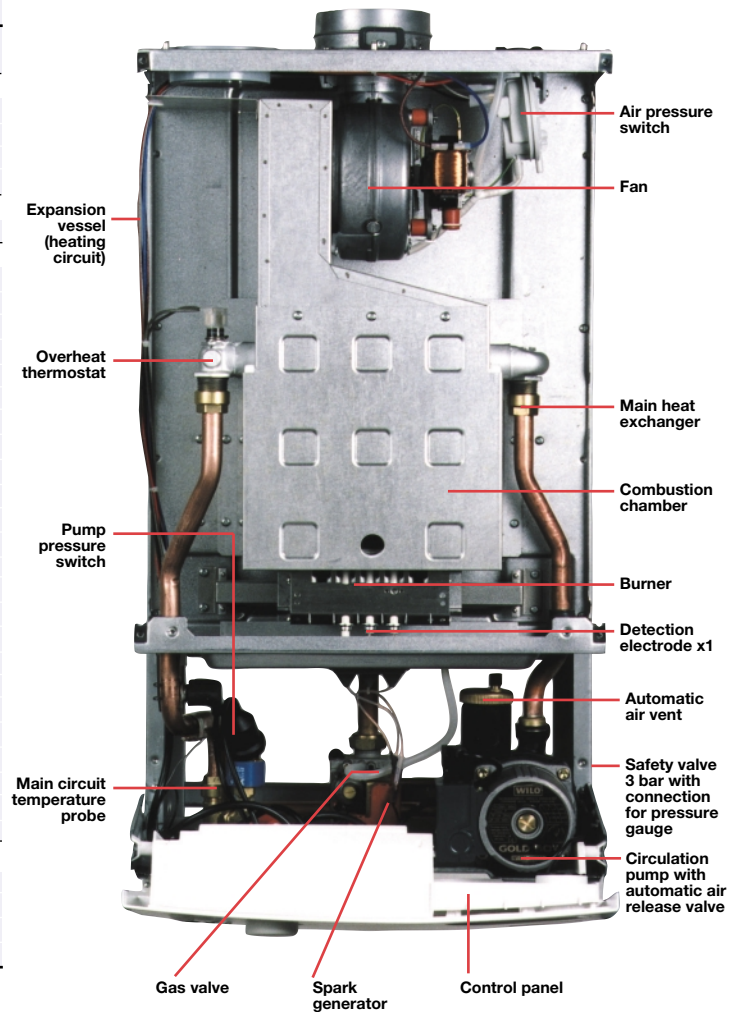


TECHNICAL INFORMATION

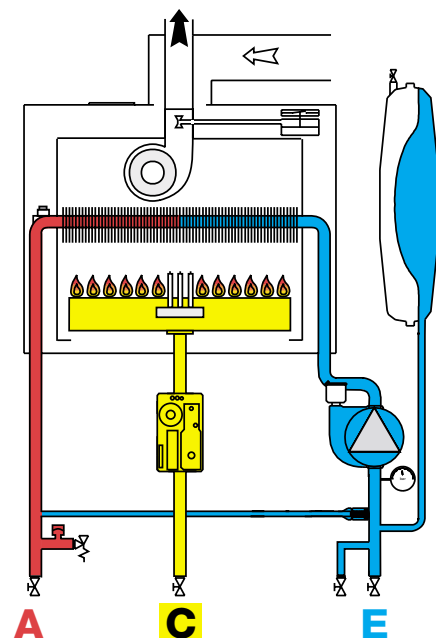
MICROSYSTEM RFFI					
		10	15	21	28
CE Certification		63AV4994	63AV4994	63AV4994	63AV4994
POWER					
Heat input max.	kW - Btu/h	11.6 - 39,500	15.4 - 52,500	22.7 - 77,400	29.8 - 101,700
Heat input min.	kW - Btu/h	-	-	10.0 - 34,000	12.0 - 41,000
Heat output max.	kW - Btu/h	10.4 - 35,500	13.8 - 47,000	21.1 - 72,000	27.8 - 95,000
Heat output min.	kW - Btu/h	-	-	8.7 - 30,000	10.5 - 36,000
EFFICIENCY					
SEDBUK Rating	Band	D	D	D	D
CHARACTERISTICS					
Heat loss to the casing ($\Delta T=50^{\circ}\text{C}$)	%	3.4	3.5	1.2	0.2
Heat loss through the flue when burner on	%	6.6	6.5	6	6.3
Heat loss through the flue when burner off	%	0.2	0.2	0.2	0.4
Maximum exhaust discharge (Natural Gas)	kg/h	28.5	35	46.2	60
Residual discharge head	mbar	0.3	0.3	0.7	1.6
Consumption at nominal capacity (G20) ⁽¹⁾	m ³ /h	1.22	1.63	2.4	3.15
Gas consumption after 10 minutes*	m ³	0.12	0.17	0.25	0.37
(15°C, 1013 mbar) G30-G31 ⁽¹⁾	kg/h	0.91/0.9	1.21/1.19	1.78/1.76	2.34/2.31
Exhaust gas temperature at nominal capacity	°C	115	119.3	117.2	123.8
Content of CO ₂ (G20)	%	5.6	6.1	6.81	6.9
Content of O ₂	%	10.2	9.6	9	8.1
Content of CO (O% O ₂)	ppm	16.7	19.1	20	48
Minimum ambient temperature	°C	5	5	5	5
Pressure lost through boiler (max) $\Delta T=20^{\circ}\text{C}$	mbar	200	200	200	200
Residual head of system	bar	0.25	0.25	0.25	0.25
Central heating temperature	max/min°C	82/42	82/42	82/42	82/42
Built-in expansion vessel capacity	l	6	6	6	6
Built-in expansion vessel pre-charge pressure	bar	1	1	1	1
Maximum water content of system	l	130	130	130	130
Maximum heating pressure	bar	3	3	3	3
Gas inlet pressure - Natural Gas (G20)	mbar	20	20	20	20
Gas inlet pressure - LPG (G30-G31)	mbar	30	30	30	30
Weight	kg	29.5	30	31	32
G.C. number		41-116-04	41-116-05	41-116-06	41-116-07
ELECTRICAL DATA					
Electrical	V/Hz	230/50	230/50	230/50	230/50
Power consumption	W	105	105	100	155
Protection grade of electrical system	IP	X4D	X4D	X4D	X4D
Internal fuse rating		Fast 2 AT	Fast 2 AT	Fast 2 AT	Fast 2 AT

C*: C12, C32, C42, C52, C82: ⁽¹⁾:15°C, 1013 mbar
 *: Calculated at 70% maximum output

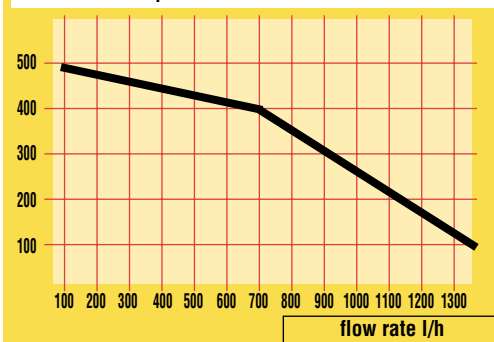
MICROSYSTEM 15 RFFI



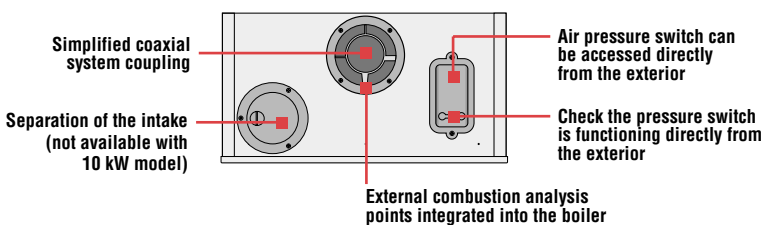
SCHEMATIC



Graph of boiler residual head



FLUE EXHAUST CONNECTION SYSTEM



CYLINDERS

COMFORT STI 125-150-210 CONTRACT STI 125-150-210-300



10 YEAR GUARANTEE

FLOOR STANDING INDIRECT UNVENTED CYLINDERS



- Quality steel tank, 12 bar pressure tested and exclusive vitreous enamel coating
- CFC free polyurethane thermal insulation
- Compact design - slimmest available on the market (up to 200 litres)
- All plumbing and electrical connections within a 90° angle
- Unique ProTech anti-corrosion system
- Thermostats adjustable to 70°C
- Unique coil design allows full quantity of water to be heated
- Factory fitted 1/2" T&P relief valve
- Unvented control kit supplied with cylinder at no additional cost

- Simple installation
- 10 year tank guarantee (2 year guarantee on electrical components)

CONTRACT MODELS

- Heating element supplied with regulation thermostat and dual pole thermal cut-out
- Cylinder thermostat with external regulation

COMFORT MODELS

- Unique no scale "dry" heating element factory fitted
- No drain down needed for inspection saving water and time
- All thermostats factory fitted and pre-wired requiring only final electrical connection to be made



Steel tank



High quality enamel coating



ProTech anti-corrosion system



High efficiency indirect coil



Cylinder thermostat



Secondary return connection



Temperature regulation

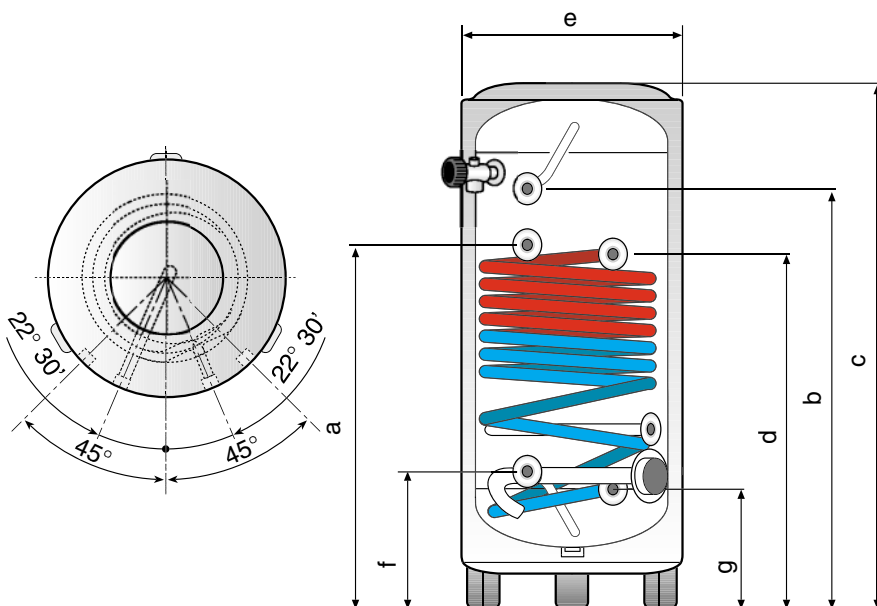


Polyurethane insulation

TECHNICAL INFORMATION - DIMENSIONS

		CONTRACT STI 125	CONTRACT STI 150	CONTRACT STI 210	CONTRACT STI 300	COMFORT STI 125	COMFORT STI 150	COMFORT STI 210
Capacity	litres	125	150	200	125	150	200	300
Indirect coil rating	kW	20.5	26.7	26.7	26.7	20.5	26.7	26.7
Voltage	V	240	240	240	240	240	240	240
Immersion heater reheat time ($\Delta T = 50^\circ C$)	minutes	150	175	240	350	150	175	240
Power	kW	3	3	3	3	3	3	3
Coil surface area	m ²	0.75	0.90	0.90	0.90	0.75	0.90	0.90
Indirect reheat time* ($\Delta T = 50^\circ C$)	minutes	18	22	26	40	18	22	26
Maximum temperature	°C	70	70	70	70	70	70	70
Heat loss (kW/h in 24 h) 60°C		2.00	2.20	2.40	2.85	2.00	2.20	2.40
Typical application**		A	B	C	D	A	B	C

*Primary circuit 80°C, 1 m³/h circulation



**Typical application

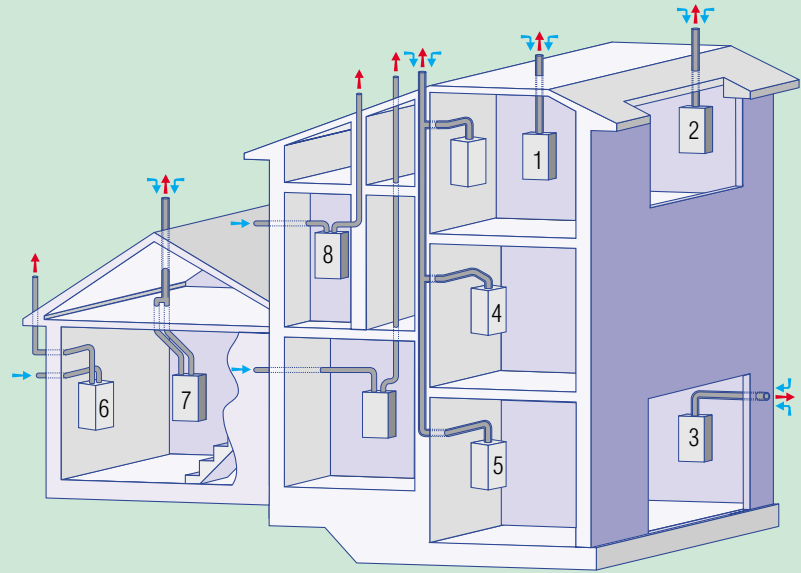
- A: domestic usage 3/4 people (kitchen, bathroom + shower)
- B: domestic usage 4/5 people (kitchen, 2 bathrooms)
- C: domestic usage 5 people and above (kitchen, 2 bathrooms + shower)
- D: commercial use

	STI 125	STI 150	STI 210	STI 300
a mm	650	790	940	1215
b mm	755	915	1230	1555
c mm	995	1155	1475	1790
d mm	625	765	765	815
e mm	505	505	505	560
f mm	265	265	265	275
g mm	225	225	225	255

FLUE PIPE ACCESSORIES

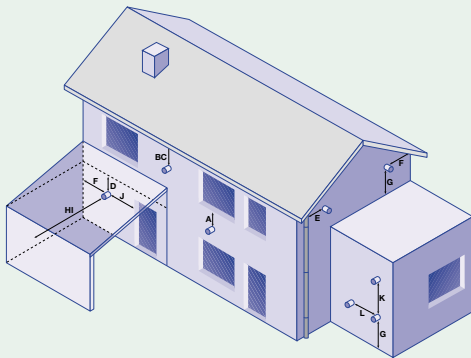
FOR ANY INSTALLATION, THE RIGHT PARTS FOR MAKING YOUR JOB EASIER

Ariston boilers offer the best choice because they are all designed to be completely adaptable to the many different situations that may be encountered on a daily basis. The need for alteration is almost completely eliminated, allowing you to install the boiler in a short time and with the utmost ease. This will also contribute towards the success of your business: an objective that has always distinguished the relationship between Ariston and its customers/partners.



Coaxial system: up to 4 m - Twin pipe system up to 27 m
(twin pipe system available for 15, 21, & 28 kW models only)

INSTALLATION CONDITIONS



TERMINAL POSITION

mm

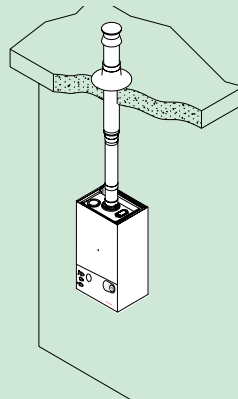
A	Directly below an openable window or other opening	300
B	Below gutters, solid pipes or drain pipes	75
C	Below eaves	200
D	Below balconies or car-port roof	200
E	From vertical drain pipes and soil pipes	75
F	From internal or external corners	300
G	Above ground or balcony level	300
H	From a surface facing a terminal	600
I	From a terminal facing a terminal	1200
J	From an opening in the car port (e.g. door, window) into dwelling	1200
K	Vertically from a terminal in the same wall	1500
L	Horizontally from a terminal in the same wall	300

TYPE 1 Coaxial System

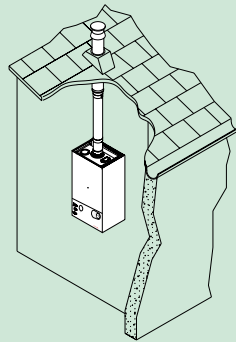
TYPE 2 Coaxial System

TYPE 3 Coaxial System

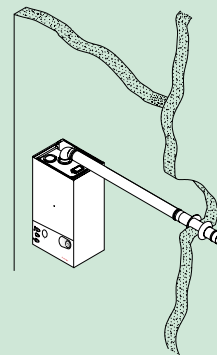
TYPE 4 Coaxial System



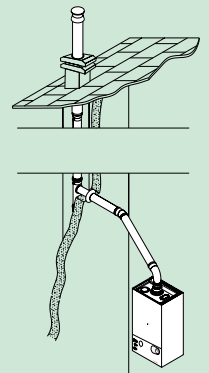
Vertical exhaust / suction system with coaxial piping on a flat roof.



Vertical exhaust / suction system with coaxial piping on a pitched roof.



Horizontal exhaust / suction system with coaxial piping.



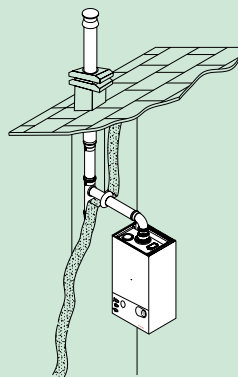
Exhaust / suction system with 45° elbows, connected to an air / fume flue duct system.

TYPE 1 Coaxial System

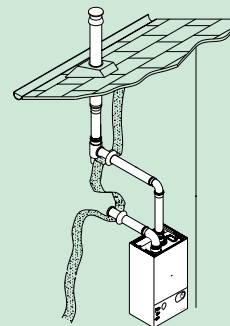
TYPE 2 Coaxial System

TYPE 3 Coaxial System

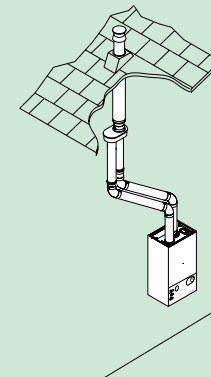
TYPE 4 Coaxial System



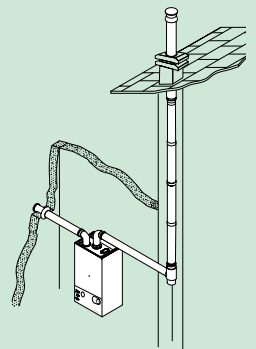
Exhaust / suction system with a 90° elbow, connected to an air / fume flue system.



Exhaust / suction system with two separate pipes - exhaust on a pitched roof, suction through a wall.



Exhaust / suction system with two separate pipes - exhaust and suction on a pitched roof via a coaxial adaptor.



Exhaust / suction system with two separate pipes - exhaust via flue duct, suction through a wall.

ACCESSORIES AND SPARE PARTS ENGINEERED FOR PERFECT INSTALLATION



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 connection kit and on the anti-theft device itself.

DIGITAL TIME CLOCK

7 day timer.

MECHANICAL TIME CLOCK

24 hour timer.

ACCESSORIES AND SPARE PARTS ENGINEERED FOR PERFECT INSTALLATION



REAR-PIPING CHASSIS

Allows easy installation 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.

SYSTEM CLEANER

A practical accessory for cleaning the heating system.

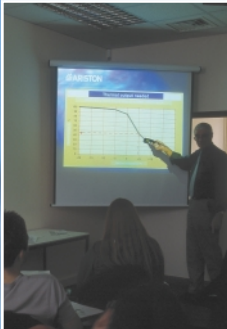
It is simple to use: connect the system cleaner to the system return isolation valve, open the system return isolation valve, switch on the boiler, allow the pump to run for the necessary time then remove the system cleaner from the kit.

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

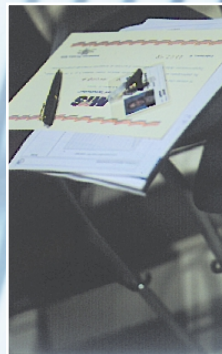
This allows the flushing of a new heating system without the impurities damaging the boiler components.

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

ARISTON QUALITY PRODUCTS EXCEPTIONAL SERVICE



- Belfast
- Bristol
- Edinburgh
- **High Wycombe**
- Manchester
- Portsmouth
- Rochester
- Rotherham



COMPREHENSIVE TRAINING

The numerous Ariston Training Centres allow you to learn and expand your knowledge of the field. Courses cover areas such as customer relations, product selection, installation, system start-up, checks, maintenance, guarantees, and legislative standards.

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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