RESIDENTIAL COMBI GAS BOILERS

2022

FOR PROFESSIONAL USE

2022 CATALOGUE

eco°

eco° global industries
a Great Britain corporation

TOWARDS A GREENER & HEALTHIER WORLD

SMART & ECO-FRIENDLY TECHNOLOGICAL-DRIVEN SOLUTIONS FOR GREENER & HEALTHIER WORLD

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CORPORATE PROFILE

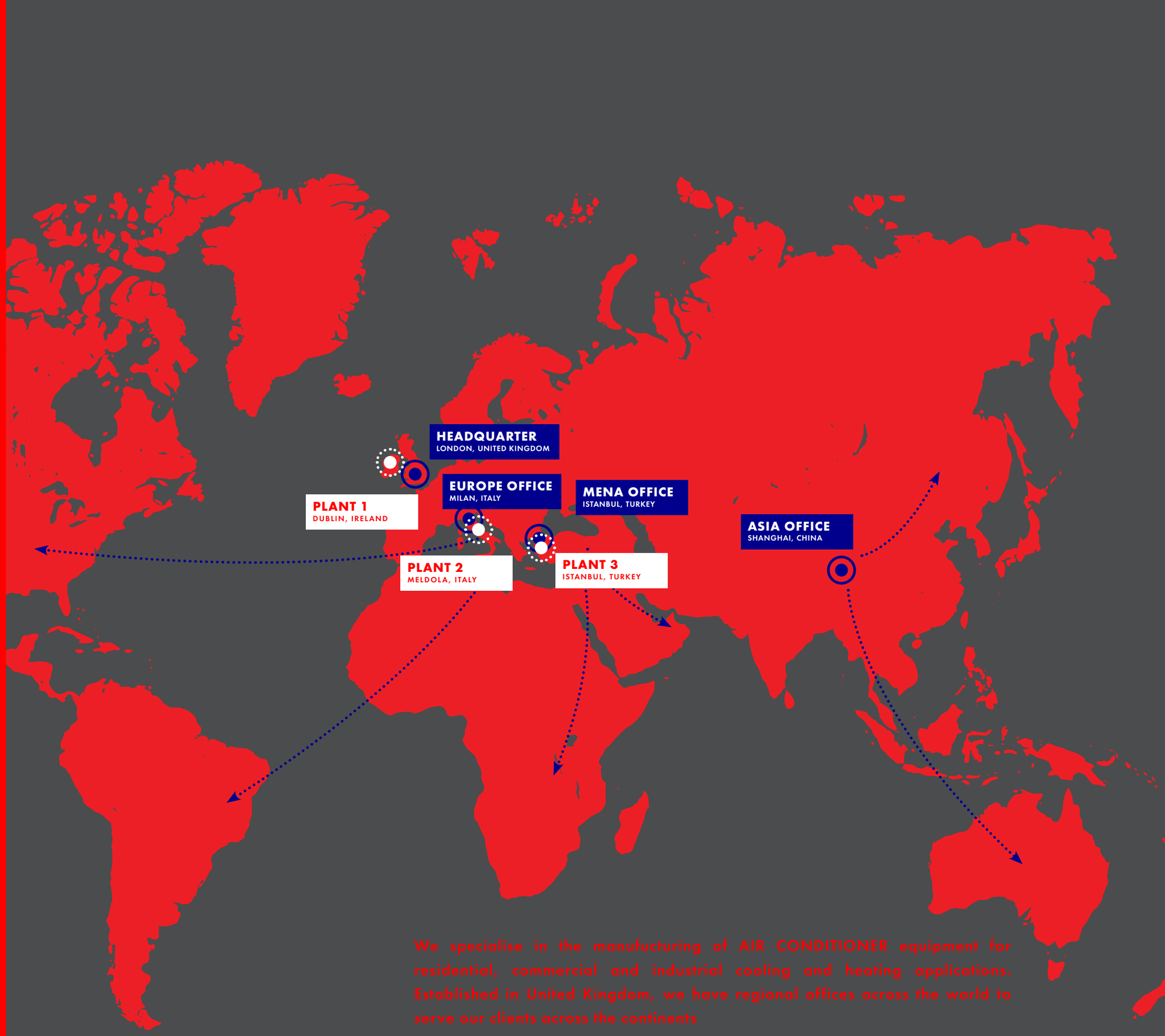
Our eco° global industries is an enterprise specialising in products and services across: Energy Sector, Heavy Industries, Technology Sector, Education Sector, Transportation Sector and Lifestyle Sector such as Appliances, Health & Food

eco° focuses on delivering eco-friendly and smart solutions and services to improve lives and safeguard our environment

eco° is committed towards our clients to always deliver design and engineering solutions with great consideration given to our environments. We focus greatly on solving design and engineering challenges with sustainable solutions

MANUFACTURING PLANTS

Our GAS BOILERS manufacturing plants are located in: UK, Italy & Turkey, serving our distributors and partners across the continents. With our innovative R&D network, our equipment features latest technology and capable of delivering cooling and heating to challenging climates around the world



We specialise in the manufucturing of AIR CONDITIONER equipment for residential, commercial and industrial cooling and heating applications. Established in United Kingdom, we have regional offices across the world to serve our clients across the continents

ecoheat.ecogbl.com

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eco° BASIC

Our ECO-BASIC series is suitable for heating and domestic hot water production, powering by natural gas, LPG or Artificial Coal Gas.

18kW - 24kW - 28kW - 32kW - 45kW

eco° STANDARD

Our ECO-STANDARD series features High Efficiency operation - with its special design and high capacity components, eco° Boilers have 93% efficiency. They are environmentally friendly and cost effective.

18kW - 24kW - 28kW - 32kW

eco° BASIC

Our eco°BASIC series is suitable for heating and domestic hot water production, powering by natural gas, LPG or Artificial Coal Gas .

Thanks to the microprocessor control and advanced adjustment system, the units offer self-diagnosis with most functions to be completely automated. The units operation is regulated continuously to ensure high performance and fast delivery of comfort.

Simply set the desired temperature and let the smart system do the rest for you.

	ECO-B18	ECO-B24	ECO-B28	ECO-B32	ECO-B45
Rated Input Capacity (kW)	20.0	26.3	30.5	36.0	50.0
Rated Output Capacity (kW)	18.0	23.7	27.7	32.5	45.0
Min Input Capacity (kW)	8.0	10.5	13.5	14.5	20.0
Min Output Capacity (kW)	7.1	9.3	11.9	12.8	17.5
Efficiency (%)	> 90	> 90	> 90	> 90	> 90
Heating System Parameters					
Adjustment Range of Heating Water / Radiator (°C)	30~80	30~80	30~80	30~80	30~80
Adjustment Range of Heating Water / Floor (°C)	25~60	25~60	25~60	25~60	25~60
Max / Min Pressure (Mpa)	0.05~0.3	0.05~0.3	0.05~0.3	0.05~0.3	0.05~0.3
Normal Working Pressure (Mpa)	0.1~0.15	0.1~0.15	0.1~0.15	0.1~0.15	0.1~0.15
Heating Area (m^2)	60~100	60~200	60~250	100~300	150~430
Max Heating Water Temperature (°C)	90	90	90	90	90
Expansion Tank Volume (L)	6	6	8	10	10
Expansion Tank Initial Pressure (Mpa)	0.1	0.1	0.1	0.1	0.1
Hot Water System Parameters					
Hot Water Capacity with Δ t = 25k (kg / min)	10.0	13.6	16	18	25
Hot Water Capacity with Δ t = 30k (kg / min)	8.3	11.5	13.3	15.2	21
Hot Water Temperature Adjustment Range (±3°C)	30~60	30~60	30~60	30~60	30~60
Min Water Flow for Starting (L/Min)	2.5	2.5	2.5	2.5	2.5
Water Press of Hot Water (MPa)	0.05 ~ 0.7				
Electrical Characteristics					
Power Supply (V/Hz)	220/50	220/50	220/50	220/50	220/50
Rated Capacity (W)	100	110	120	120	200
Protection Grade (IP)	x4D	x4D	x4D	x4D	x4D
Gas Parameters					
Natural Gas G20 / Rated Pressure (Pa)	1500 ~ 3000				
Natural Gas G20 / Preset Pressure (Pa)	2000				
Natural Gas G20 / Reference Consumption (m^3/h)	0.8~2.0	1.0~2.6	0.9~2.6	1.4~3.5	2.0~5.0
LPG / Gas Pressure Range (Pa)	2000 ~ 3000				
LPG / Rated Pressure (Pa)	2800	2800	2800	2800	2800
LPG / Reference Consumption (kg/h)	0.51~1.45	0.65~1.9	0.9~2.6	1.2~3	1.75~3.55
Pipe Connection Dimensions					
Inlet / Outlet of Hot Water for Heating (inch)	G3/4	G3/4	G3/4	G3/4	G3/4
Inlet / Outlet of Hot Water (inch)	G1/2	G1/2	G1/2	G1/2	G1/2
Gas Inlet (inch)	G3/4	G3/4	G3/4	G3/4	G3/4
Other Parameters					
In/out Coaxial Pipe (mm)	ø100/60	ø100/60	ø100/60	ø100/60	ø120/80

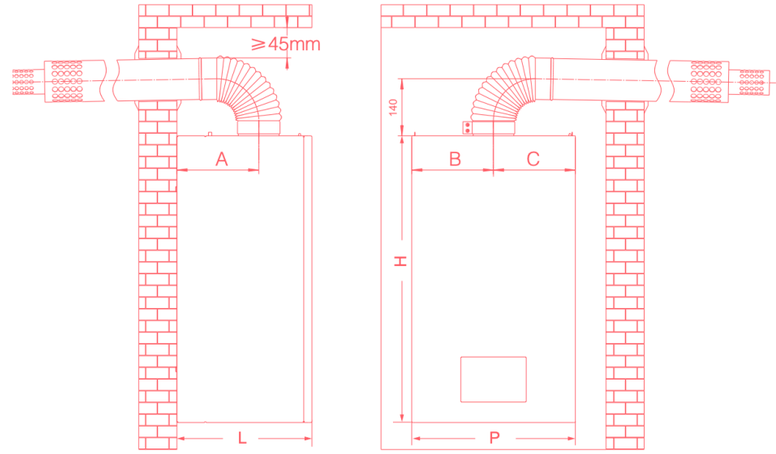
MAIN FEATURES

1. Low Noise, Quick Installation and Easy To Use
2. Winter / Summer Mode Switch Button
3. Set Desired Temperature for Heating System and Domestic Hot Water at your request
4. Proportional Switch to Control Temperature of Heating System and Domestic Hot Water System
5. Temperature of Water Flow Display
6. Safety Valve to open automatically to release pressure in order to protect the unit when the water pressure reaches to 0.3Mpa
7. Temperature Protection - the unit will suspend all operations when overheated or temperature sensor malfunction occurs
8. Negative-pressure Hermetically Firing for less indoor oxygen consumption

Note: The above parameters are for reference only, please refer the nameplate of each unit for accurate data

eco° BASIC 18kW - 32kW

Technical Diagram

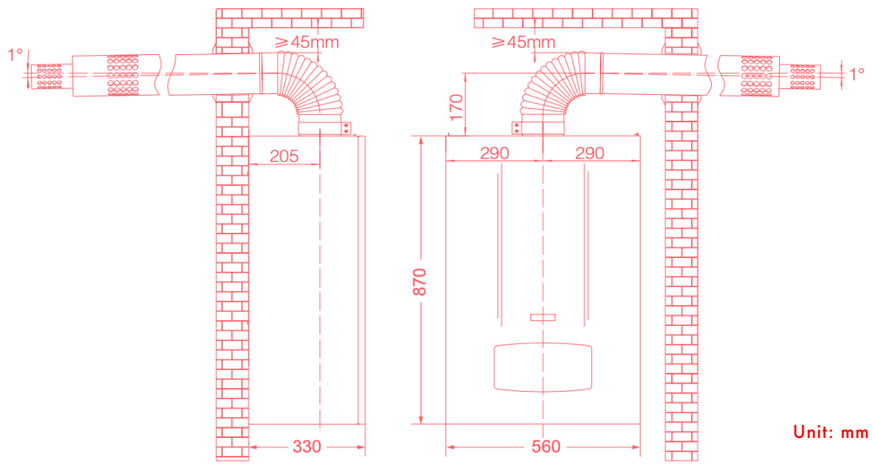


H	P	L	Model
700	400	260	18kW
700	400	330	24kW / 28kW
730	460	330	32kW

A	B	C	Model
130	200	200	18kW
130	230	230	24kW / 28kW
200	230	230	32kW

eco° BASIC 45kW

Technical Diagram



Unit: mm

PRODUCT DATA

eco° STANDARD

HIGH EFFICIENCY

With its special design and high capacity components, eco° boilers have 93% efficiency. They are environmentally friendly and cost effective.

PROTECTION AGAINST FROST

Even in the coldest weather, eco° boilers are protected with their Anti-Frost Protection System.

LONG LASTING

eco° boilers offer long lasting and problem free use with their high quality components.

CONTINUOUS COMFORT

eco° combi boilers provide uninterrupted warm water comfort by working properly even in low pressure network system.

COMPACT SIZE

With its minimum dimensions, eco° combi boilers can be installed in the narrowest spaces.

VERY QUIET IN OPERATION

eco° boilers run very quiet thanks to 10mm wide special insolation material in its inner surface.

FULLY SAFE

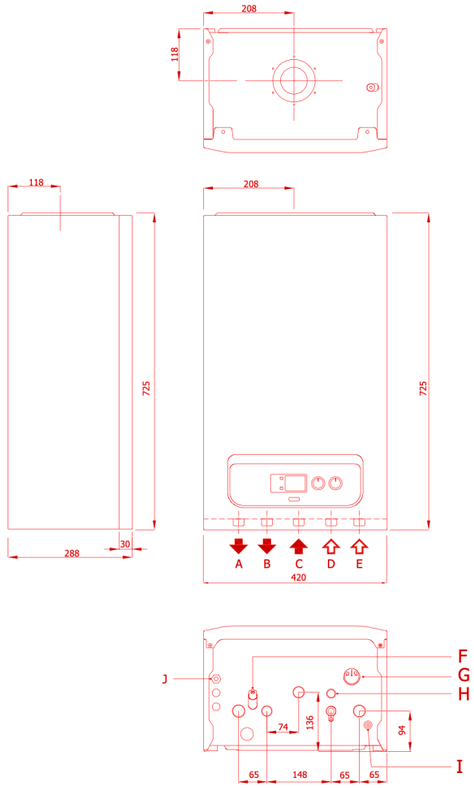
eco° boilers warm you and your loved ones safely thanks to its 23 different safety systems.

18kW - 24kW - 28kW - 32kW

Technical Data	UNIT	ECO-ST 18	ECO-ST 24			ECO-ST 28			ECO-ST 32
Gas Circuit (Supply Pressure)	(mbar)	Natural Gas (20)	Natural Gas (20)	Natural Gas (13)	LPG (37)	Natural Gas (20)	Natural Gas (13)	LPG (37)	Natural Gas (20)
Gas Consumption at Maximum / Minimum Heat Load	m^3/h	2,12 / 1,11	2,535 / 0,89	2,487 / 0,93	0,967 / 0,33	3,254 / 1,09	3,134 / 1,157	1,215 / 0,455	3,41 / 1,40
Central Heating Circuit									
Maximum / Minimum Nominal CH Heat Output	kW	18,33 / 9,45	23,2 / 7,1	22,8 / 7,5	21,7 / 7	28 / 10	26,9 / 10,7	28 / 10	32,5 / 12,8
Maximum Heating Efficiency	%	92.0	93.9	93.9	93.77	94.06	94.06	93.68	93.36
Temperature adjustment range	°C	35 - 80	35 - 80			35 - 80			35 - 80
Maximum / Minimum operating pressure	bar	3 / 0,3	3 / 0,3			3 / 0,3			3 / 0,3
Expansion tank useful volume	Liter	8	8			10			10
Pump Pressure (at 1000 l/h)	mH2O	4.8	4.8			5.2			5.2
Domestic Hot Water Circuit									
Maximum / Minimum Domestic Hot Water Heat Output	kW	22,5 / 8,7	23,2 / 7,1	22,8 / 7,5	21,74 / 7	28 / 10	26,9 / 10,7	28 / 10	32,5 / 12,8
Max. Domestic Hot Water flow rate (Δt: 30 °C)	l/min.	10.5	10.9	10.7	10.9	13.88	13.34	13.88	14.20
Maximum / Minimum water pressure	bar	10 / 0,3	10 / 0,3			10 / 0,3			10 / 0,3
Temperature adjustment range	oC	35 - 60	35 - 60			35 - 60			35 - 60
Electricity Circuit									
Electricity Supply	VAC 50 Hz	230 V +%10; -%15							
Electricity Consumption	Watt	123	121			136			136
Protection Index	IP	X5D							
Exhaust Gas Circuit									
Nominal / Minimal Exhaust Gas Temperature (DHW & CH)	°C	122 / 105	124 / 96	122 / 102	112 / 89	108 / 85	104 / 90	110 / 88	114 / 110
Overheat Combustion Products Temperature (DHW & CH)	°C	140	140	140	135	135			135
NOx	Class	3	3			2			2
General									
Maximum/Minimum Ambient Temperature	°C	+10 / +48							
Hydraulic Group Material		Brass							
Dimensions (H x W X D)	mm	725 x 420 x 288				725 x 420 x 380			
Net Device Weight / Packed Device Weight	kg	29,3 / 32,5	29,3 / 32,5			34,5 / 37,2			34.5
Type		C12, C32, C42, C52, C82, B22, B32							
Category		I2H (G20 = 20 mbar)- I2H (G20 = 13 mbar)- I3P (G31 = 37 mbar)							
Maximum Flue Range (Horizontal / Vertical)*	m	5 / 6							

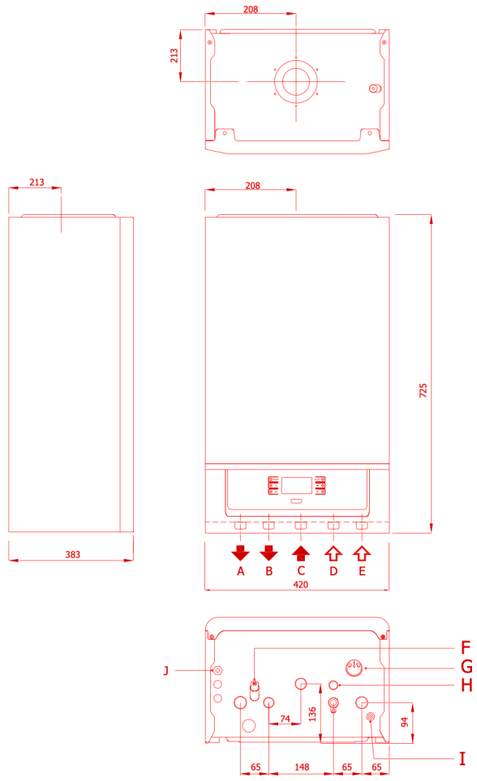
* In a maximum flue range, for every 90° bend; it should be reduced by 1 m and 0.5 m for each 45° bend. ** Natural Gas : Hu= 9,59 kWh/m7)

PRODUCT DATA



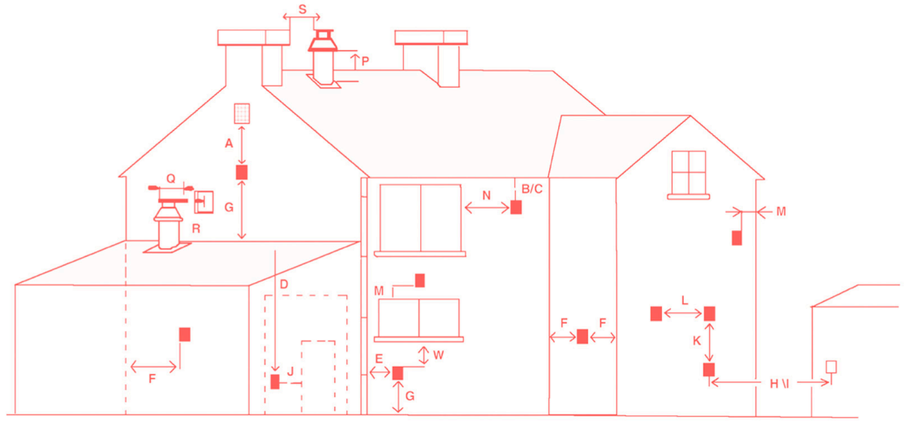
eco° STANDARD 18kW - 24kW
Technical Diagram

A	Central heating flow
B	Domestic hot water outlet
C	Gas inlet
D	Domestic hot water inlet
E	Central heating return
F	Filling valve
G	Manometer
H	Pressure relief valve outlet
I	Drain point
J	230V 50HZ AC



eco° STANDARD 28kW - 32KW
Technical Diagram

A	Central heating flow
B	Domestic hot water outlet
C	Gas inlet
D	Domestic hot water inlet
E	Central heating return
F	Filling valve
G	Manometer
H	Pressure relief valve outlet
I	Drain point
J	230V 50HZ AC



Flue should be installed in accordance with national and local directives. No part of the output pipe or connections should be blocked. If the output pipe passes 1000 mm nearby of a plastic or painted groove or 500 mm of painted fringes, an aluminium shield with at least 1000 mm length should be placed below the groove or fringe. Output pipe should be at least 2 m over surfaces within reach by individuals.

	FLUE POSITION	MINIMUM DISTANCE
A	Under a window	300mm
B	Under water groove	75mm
C	Under fringes	200mm
W	Under balconies	200mm
E	To vertical water discharge pipes	150mm
F	Interior or exterior corners	300mm
G	At ground, roof or balcony level	300mm
H	On another wall corresponding to the flue	600mm
S	To another flue To another wall than the garage wall	1200mm

	FLUE POSITION	MINIMUM DISTANCE
J	To another wall than the garage wall	1200mm
R	To another flue than the same wall (vertical)	1500mm
Q	To another flue than the same wall (vertical)	300mm
M	On another window/culvert On another window /culvert vertically	300mm
P	On the roof level	300mm
F	To an adjacent wall	300mm
I	To the window on adjacent wall	300mm
L	To another flue	1000mm

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