ideal HEATING

EVOMAX 2

80kW

5 YEAR WARRANTY*

MADE IN THE UK



Wall Hung

BIM

NOx Class 6

Flueing options

Cascade control

WINNER
Commercial/Industrial Heating Product of the Year 2020

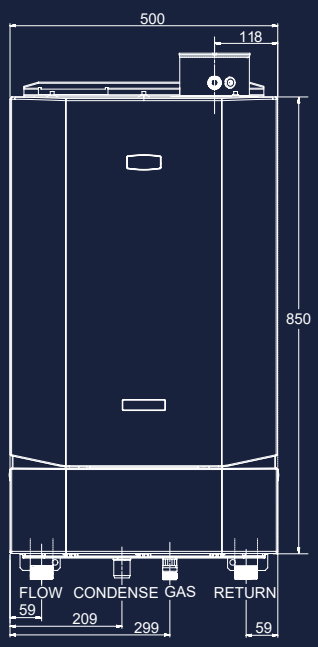
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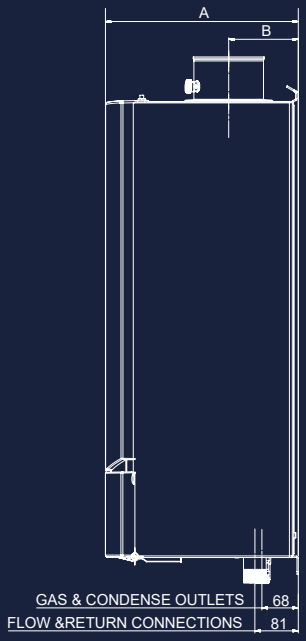
EXPERTS IN HEATING

Features & specification

Available in outputs of 30, 40, 60, 80, 100, 120 and 150kW, Evomax 2 is designed to ensure all installation requirements can be achieved. There is also an LPG Evomax 2 range from 30 - 120 kW for off mains installations.

- **Free Commissioning***
- Robust cast aluminium silicon alloy heat exchanger
- NOx <40mg/kWh (Class 6) for all natural gas models
- High 5:1 turndown
- Up to 99.6% full load efficiency
- Up to 110% part load efficiency
- Compact - small footprint
- Dynamic control menu set up
- Cascade controls option
- Easy servicing; 3 sides removable
- Built in, serviceable flue Non-Return Valve
- Capable of operating at up to 30° ΔT





DIMENSIONS & CLEARANCES

BOILER	DIM A	DIM B
80	360	130

The following minimum clearances must be maintained for operation and servicing:

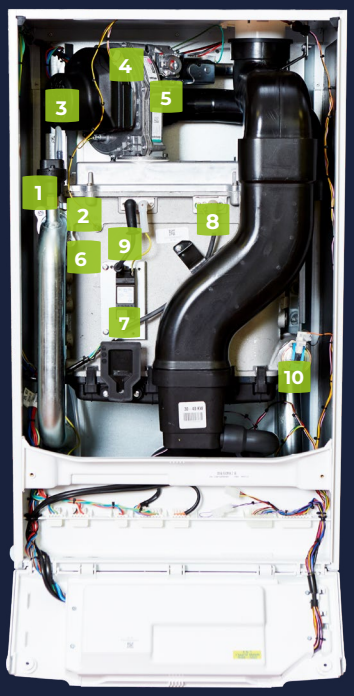
CLEARANCE BETWEEN MULTIPLE BOILER INSTALLATIONS: 25mm

TOP: DEPENDENT ON FLUE SIZE

SIDES: 25mm

FRONT: 450mm

BOTTOM: 300mm



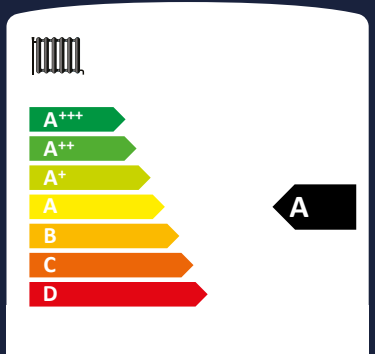
BOILER ASSEMBLY

INTERNAL VIEW

(40kW MODEL SHOWN)

KEY

1. Auto Air Vent
2. Burner Fixings
3. Fan
4. Gas Valve
5. Venturi
6. Flow Thermistor
7. Ignitor Unit
8. Electrode Detection
9. Ignition Electrode
10. Water Pressure Sensor



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EXPERTS IN HEATING

EVOMAX 2 80kW
TECHNICAL SPECIFICATIONS

GENERAL

Dry Weight	kg	57.5
Boiler Dimensions	mm	850 (H) x 500 (W) x 360 (D)
Boiler Clearances	mm	Front: 450 Side: 25 Below: 300
Full Load Efficiency	%	99
Part Load Efficiency	%	110
Seasonal Efficiency	%	97.2
SEDBUK 2009	%	N/A
Min/Max Gas pressure (Nat Gas)	mbar	17.5/20.0

BURNER PRE MIX

Fuel	(Type G20)	Natural Gas
Fuel Consumption (Nat Gas)	m^3/h	8.7
Flame Protection		Ionisation
Ignition		Spark
Boiler Output (Mean 70°C)	kW	16 - 80
Boiler Output (Mean 40°C)	kW	17.2 - 84.4
Boiler Input (Gross cv)	kW	90.9
Gas Inlet Size		G¾"
NOx Weighted (gross)	mg/kWh	34.9
NOx Class		Class 6

HYDRAULICS

Hydraulic Resistance (11°C ΔT)	mbar	750
Hydraulic Resistance (20°C ΔT)	mbar	180
Hydraulic Resistance (30°C ΔT)	mbar	70
Nominal Flow Rate (11°C ΔT)	l/min	104.2
Nominal Flow Rate (20°C ΔT)	l/min	57.3
Nominal Flow Rate (30°C ΔT)	l/min	38.2
Min Flow Rate (30°C ΔT) (MAX MOD)	l/min	38.9
Min Flow Temperature	°C	30
Max Flow Temperature	°C	85
Min Working Pressure	bar	0.3
Max Working Pressure	bar	6
Max Static Head Of Water	metres	61.0
Condensate Connection	mm	25
High Limit Set Point	°C	110 flow, 95 return
Flow & Return Size		G1¼"
Water Content	litres	5.0

FLUE/AIR INLET

Flue Size	mm	80/125 Concentric or Open Flue
Flue Gas Volume	m^3/h	110.1
Flue Gas Temperature 80/60	°C	70
O/F Max Counter Pressure Diff	Pa	312
Balanced Flue Counter Pressure Diff	Pa	0

ELECTRICAL

Electrical Supply		230V - 50Hz
Current (Max No Pump)	amp	4A
Power Consumption	watt	149
Modulating Input	V/dc	0-10V or OpenTherm
Fuse Rating	amp	4.0
Controls Voltage	V	230V 50Hz volts free control or PELV =<24V DC
Insulation Class IP		IPX4D

CONTROL OPERATION

On/Off 0-10V DC	Yes
OpenTherm	Yes
High Limit Protection	Yes
Low Water Protection	Yes
Volt Free Common Alarm	Yes
Boiler Run Indication	Yes

OPTIONAL EVOMAX 2 KITS FOR INDEPENDENT HEAT

Multi Boiler Frame & Header Kits	Yes
Varican Module Master Kit	Yes
Varican Module Slave Kit	Yes
Extension Module Kit	Yes
OPENTHERM Room Control Kit	Yes
Room Sensor Kit	Yes
Tank Sensor Kit	Yes
Outside Sensor Kit	Yes
Header Flow Tank Immersion Sensor Kit	Yes
Header Flow Tank Strap On Sensor Kit	Yes
Safety Interlock Kit	Yes
0-10V Pump Control Kit	Yes
Condensate Pump	Yes

Please Note:
The plate heat exchangers are to be used for system separation only. They must not be used for the direct production of domestic hot water. They should not be used for direct heating of swimming pool water where the chlorinated pool water would pass directly through the plate heat exchanger.

*5 year warranty subject to Terms and Conditions. 5 years parts and labour warranty available subject to being commissioned by Ideal Heating. Free Commissioning Offer available subject to terms and conditions. Terms & conditions at idealheating.com

EVOMAX 2 80kW

SUGGESTED ENGINEERING SPECIFICATION

The Suggested Engineering Specification is wording designed for specifiers to copy and paste into their specifications to ensure inclusion of Ideal Commercial boilers.

OVERVIEW

The boilers must be fully automatically controlled, wall mounted, fanned, super-efficient condensing appliances utilising an aluminium silicon alloy heat exchanger and be suitable for connection to fully pumped open vented or sealed water systems.

CONTROLS

The condensing boilers must have connectivity for all common types of BMS integration including 0-10v, volt free and OpenTherm connections. Additional modules may be used for BACnet, LONWorks and MODBus gateways. Where no BMS is present a modulating sequencer must be available.

The boiler must be fully modulating with a 5:1 turndown ratio and include control features enabling set point adjustment, heating circuit control of one constant temperature and one DHW circuit or 2 constant temperature circuits, and safety lock out parameters including fault diagnosis for both boiler and external components such as sensors or pumps.

Boiler capabilities must include, with the use of external components, frost protection, weather or room compensation and system pump control.

FLUE

The condensing boilers must be suitable for use with a room sealed flue or open flue applications including C13, C33 and B23 classifications. The combined flue outlet and air inlet must be situated on the top of the boiler.

HYDRAULIC

The condensing boiler must be and be suitable for connection to fully pumped open vented or sealed water systems. All hydraulic connections including flow return and condensate drain must be located on the bottom of the boiler. Hydraulic connections must be uniform across the outputs available in the range to ensure ease of installation and maintenance in mixed output cascades. The boiler must have a maximum operating pressure of 6 bar and be suitable for heating and indirect hot water systems.

DIMENSIONS

The condensing boiler range must have a universal compact width and height across the range to ensure mixed output cascades maintain the same universal configuration.

Maximum permitted wall area of 0.43m².

MOUNTING

The condensing boilers can be installed either on the wall or into a prefabricated floor mounted frame. Wall brackets must be located at the top of the boiler and visible from the front to aid installation.

EFFICIENCY

The condensing boilers are capable of high seasonal efficiencies with a minimum requirement of 96.2% and low NOx emissions no greater than 39.8mg/kWH for natural gas and 80mg/kWH for LPG.

30, 40 and 60kW models must have a Seasonal Space Heating Energy Efficiency of A.

APPROVALS

The boiler must be tested and certified to; EN 483, EN 677, PREN 15420, BSEN 15417, BSEN 656, BSEN 60335-2-102, BSEN 55014-1 and BSEN 55014-2 for use with Natural Gas. Boilers are certified to meet the requirements of the EC Gas Appliance Directive, Boiler Efficiency Directive, EMC and Low Voltage Directive.

The manufacturer must be ISO 9001 accredited.

SPECIFICATION

- The 30kW boiler will be capable of flow rates for common systems using either 11°C, 15°C, 20°C or 25°C temperature differentials.
- The 40, 60 and 80kW boiler will be capable of flow rates for common systems using either 11°C, 15°C, 20°C, 25°C or 30°C temperature differentials.
- The 100kW boiler will be capable of flow rates for common systems using either 15°C, 20°C, 25°C or 30°C temperature differentials.
- The 120 and 150kW boiler will be capable of flow rates for common systems using either 20°C, 25°C or 30°C temperature differentials.

SOURCING

The condensing boiler must be manufactured or finally assembled in the United Kingdom.

CASCADE

The boiler must be configurable up to 6 boilers (max 900kW) in cascade using a prefabricated frame and header kit.

WARRANTY

The boiler must be available with a 5 year warranty.

Please note that the above information is correct at time of publication. Ideal Heating has a policy of continuous development and therefore reserves the right to alter product specifications or any other details without prior notification.

GET A QUOTE

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