

## TECHNICAL SUBMISSION

### ATAG XL180W Wall Mounted Ultra Low NOx Condensing Boiler

#### General Description:

The ATAG XL180W boiler is one of a range of six wall mounted, stainless steel, fully modulating, ultra-low NOx, gas fired high efficiency condensing boilers, with maximum outputs ranging between 65.4kW to 180.3kW @ 80/60°C ΔT. All ATAG XL boilers utilise a pre-mix combustion system, to provide precise gas to air mixing, resulting in extremely low environmental impact.

The ATAG XL180W is tested to the requirement of BS EN 15502, with NOx annual emissions of 22.6mg/kWh. The appliance is therefore awarded the maximum two BREEAM credits. The modulation range is from 14.6kW to 155.5kW @ 80/60°C, increasing to 170.4 kW when operating in full condensing mode. The boiler is calculated to have a Gross Seasonal Efficiency of 96.4% which meets with the efficiency criteria as set out in the Non-domestic Building Services Guide Compliance Guide 2010 Edition (with 2011 amendments).

The ATAG XL180W boilers are low water content appliance that offer compact dimensions with easy manoeuvrability. The boiler includes a comprehensive controller (HMI) that features integrated master-slave cascade functionality. Multiple boilers in a cascade installation can satisfy a large range of heat demands for commercial applications and provide security of service, with the added benefit of increased modulation ranges (turn-downs). There are additional kits to allow control of heating zones and provide hydraulic separation for the primary circuits. ATAG Commercial offer the optional communication gateway and this allows communication with building management systems using BACnet, LONworks, MODbus & KNX. Two way communication is possible allowing remedial alterations to be made from a remote location.

The boiler is supplied in one piece, with a fully insulated robust and stylish outer casing fabricated from stove enabled steel sheet, providing low standing heat loss. The boiler includes two primary modulating pumps that are controlled to accurately match the flow rate requirement at the boiler heat exchanger, to the modulation rate of the burner. The combustion and primary flow systems include non-return valves for additional security of operation. The control system prevents the boiler from operating in instances where reduced, or non-flow prevents the heat generated by the burner from being transferred to the primary water.



ATAG Commercial can supply a fully integrated package consisting of single, or multiple boilers that offer compact dimensions, ease of installation and peace of mind.

The ATAG XL180W boilers comes with our **Peace of Mind** assurance with either:

- A **7 year Parts and Labour warranty** providing the unit is registered with ATAG, is commissioned by an ATAG Approved Service Engineer and the unit is serviced in accordance with our terms and conditions.
- A **10 year Parts and Labour warranty** providing the unit is registered with ATAG, is commissioned by an ATAG Approved Service Engineer and an annual Service of the boiler is completed by an ATAG Service Engineer over the 10 year period.

For further details, please check our Terms and Conditions for the XLW or alternatively get in contact with our Service Department if you require more details: 01268 546770, [service@atagcommercial.co.uk](mailto:service@atagcommercial.co.uk)

**The commissioning is free of charge if done by an ATAG Service Engineer.**

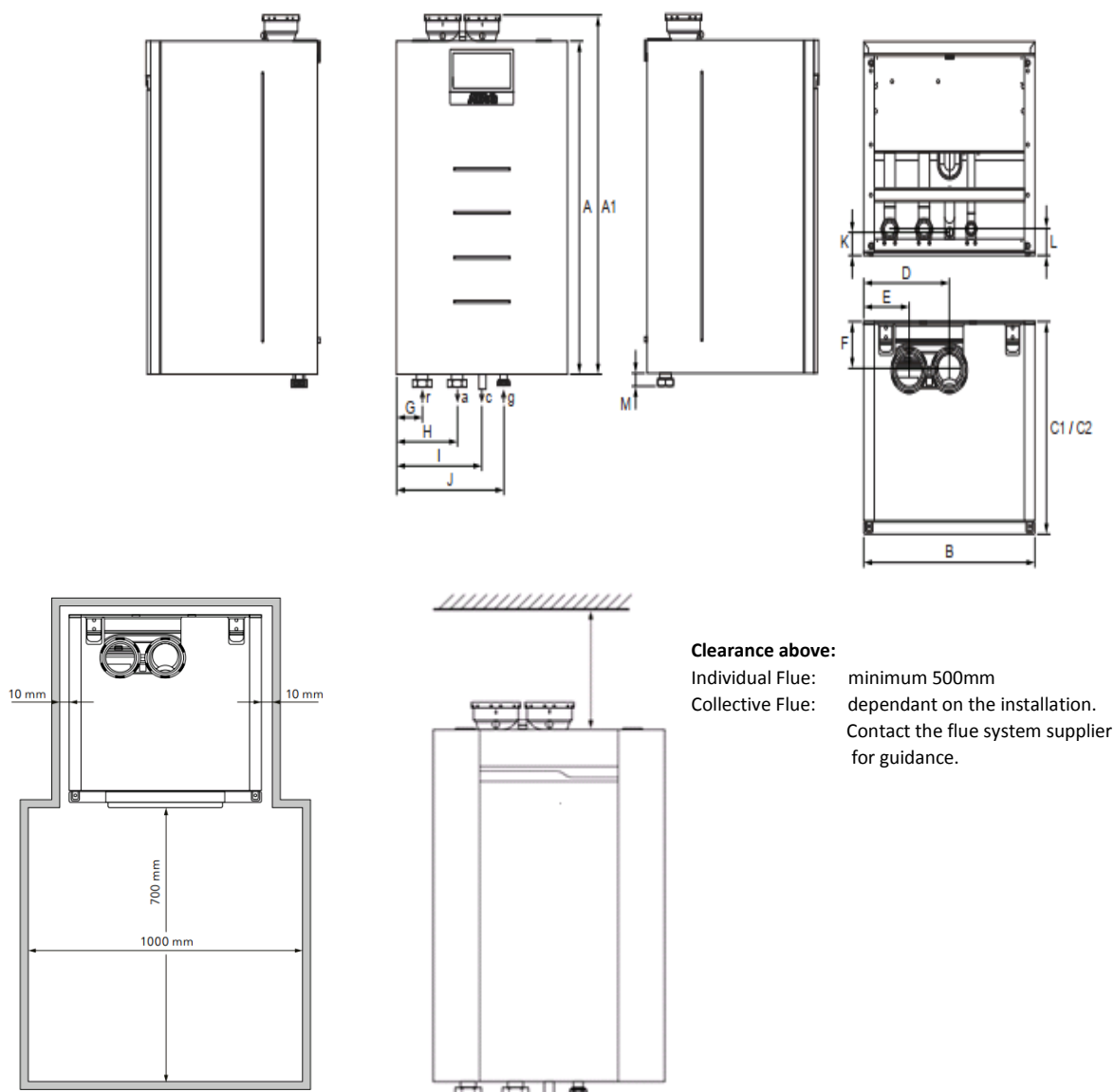
**Compliance with Standards** as appropriate with relevant sections of: Gas Appliance Directive 90/396/EEC & Boiler Efficiency Directive 92/42/EEC.

## Technical Data:

| Boiler Model  | ATAG XL180W     |                   |
|---|-----------------|-------------------|
| Seasonal space heating efficiency class <sup>1</sup>                | -               |                   |
| Nominal heat output at 80/60°C                                      | 155.5           | kW                |
| Minimum heat output at 80/60°C                                      | 14.6            | kW                |
| Nominal heat output at 50/30°C                                      | 170.4           | kW                |
| Minimum heat output at 50/30°C                                      | 16.0            | kW                |
| Nominal heat input full load Net                                    | 158.8           | kW                |
| Minimum heat input full load Net                                    | 14.9            | kW                |
| Efficiency at 80/60°C full load Net/Gross                           | 97.9/88.2       | %                 |
| Efficiency at 50/30°C min load Net/Gross                            | 107.6/96.9      | %                 |
| Efficiency at 30°C return 30% load Net/Gross                        | 109.1/98.3      | %                 |
| Gross seasonal efficiency <sup>2</sup>                              | 96.4            | %                 |
| Gas consumption max/min nat gas G20                                 | 16.8/1.57       | m <sup>3</sup> /h |
| Gas consumption max/min LPG G31 *                                   | 13.0/1.22       | kg/h              |
| Gas inlet pressure max/min nat gas G20                              | 25/17           | mbar              |
| Gas inlet pressure max/min LPG G31 *                                | 42.5-57.5/25-35 | Mbar              |
| NOx annual emissions (EN 15502) <sup>3</sup>                        | 22.6            | mg/kWh            |
| BREEAM Credits <sup>4</sup>   | 2               | -                 |
| Flue gas temperature at 80/60°C full load                           | 72              | °C                |
| Max permissible flue resistance                                     | 215             | Pa                |
| Water pressure max/min  | 6.0/0.7         | bar               |
| Maximum temperature set point                                       | 90              | °C                |
| Water flow at ΔT=20K  | 1.86            | lit/sec           |
| Residual head of pump at ΔT=20K                                     | 8.0             | kPa               |
| Water flow at ΔT=25K  | 1.5             | lit/sec           |
| Residual head of pump at ΔT=25K                                     | 34.4            | kPa               |
| Minimum water flow rate   | 0.17            | lit/sec           |
| Electrical connection   | 230             | V                 |
| Electrical power consumption boiler 230V 50Hz Boiler including pump | 464             | W                 |
| Electrical power consumption boiler 230V 50Hz Boiler excluding pump | 290             | W                 |
| Sound Power Level   | 67              | dB(A)             |
| Weight (empty)  | 132             | Kg                |
| Water content   | 21.3            | litres            |
| <b>Dimensions</b>   |                 |                   |
| Water connections flow/return <sup>5</sup>                          | R2"             | -                 |
| Gas connection <sup>6</sup>   | R1¼"            | -                 |
| Flue gas connection concentric                                      | -               | mm                |
| Room sealed using separate exhaust and combustion air supply        | 2 x 130         | mm                |
| Condensate connection   | 35.5            | mm                |
| Boiler depth  | 675             | mm                |
| Boiler width  | 690             | mm                |
| Boiler height (excluding connections)                               | 1050            | mm                |

- 1 In accordance with directive 2010/30/EU and regulation (EU) 813/2013
- 2 In accordance with equation 2 in the Non-Domestic Building Services Compliance Guide
- 3 NOx value are calculated on GCV
- 4 BREEAM UK New Construction 2018
- 5 With optional Water/Gas Connection Kit the connection sizes decrease to 1½"
- 6 With optional Water Gas Connection kit the connection size decreases to 1"

## ATAG XL180W Wall Mounted Dimensions & Clearances:



| Dimensions                                    |      |    |
|---|------|----|
| Boiler height (A)                             | 1050 | mm |
| Boiler height with connections (A1)           | 1135 | mm |
| Boiler width (B)                              | 690  | mm |
| Boiler depth C1/C2                            | 675  | mm |
| Flue Gas connection (D)                       | 345  | mm |
| Air intake connection (E)                     | 185  | mm |
| Air and flue gas connection (F)               | 150  | mm |
| Boiler return connection (G)                  | 103  | mm |
| Boiler flow connection (H)                    | 243  | mm |
| Condensate Connection (I)                     | 345  | mm |
| Gas connection (J)                            | 430  | mm |
| Condensate connection (K)                     | 60   | mm |
| Boiler flow and return and gas connection (L) | 75   | mm |
| Boiler flow and return and gas connection (M) | 25   | mm |