# Evinox

## Floor-mounted stainless steel medium and large capacity condensing boiler

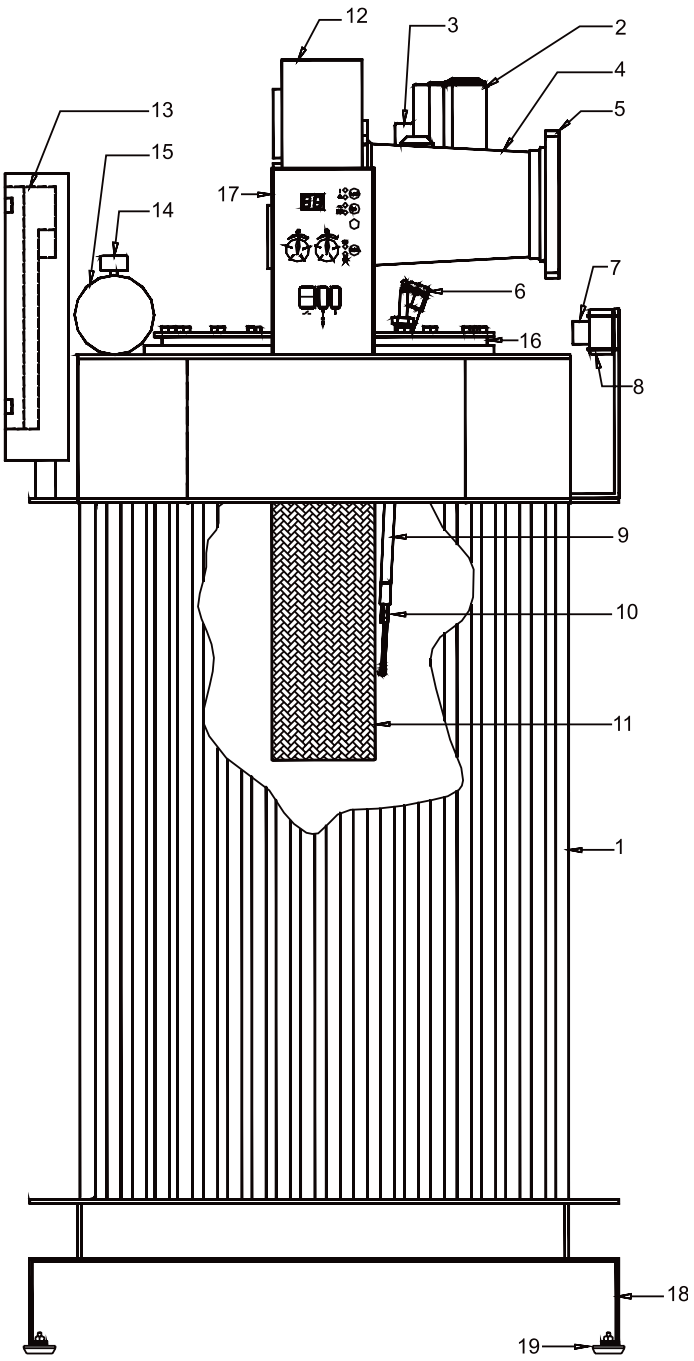

EVINOX HEATING

# Description

Technologically advanced boilers for medium and large capacity installations, an ideal solution to increase energy efficiency using the condensing process: versatility of operation is guaranteed under all conditions of use because of the continuous modulation process provided by highly-efficient gas premixed burners. The special combustion chamber and excellent burners guarantee reduced pollutant emissions (NOx and CO) and are extremely environmentally-friendly in accordance with the strictest European Regulations. The compact monobloc structure, made entirely of AISI 316L steel, means that the overall dimensions are considerably reduced, facilitating installation operations and freeing up space within the building.

Evinox boilers are suitable for coupling together in a multiple system, offering flexibility and reliability. All functional aspects, from the operational controls to the distribution of the individual circuits to a thermal cascade with several boilers, have been made extremely simple by flexible, reliable electronics based on the Eutronic common protocol, and optional remote control using telematics is available.

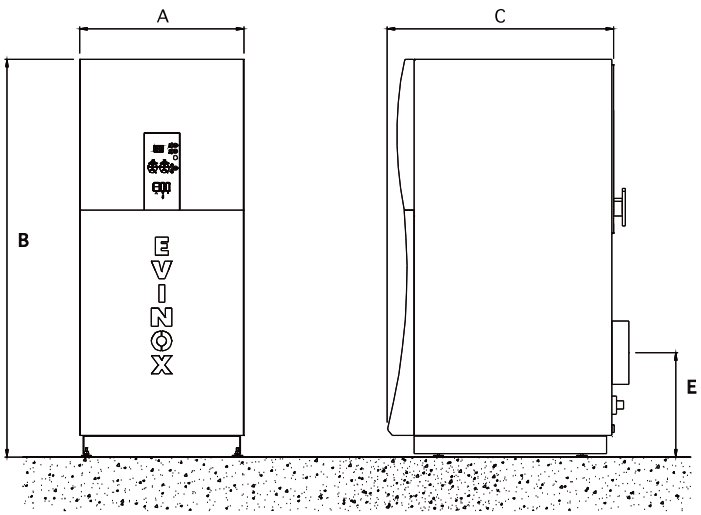
# Schematic Section

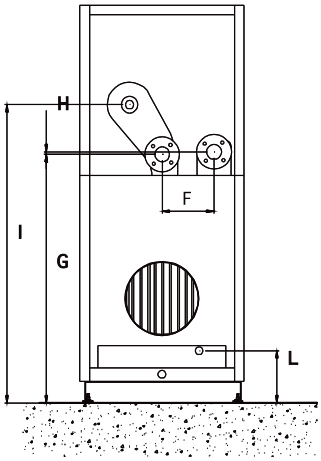


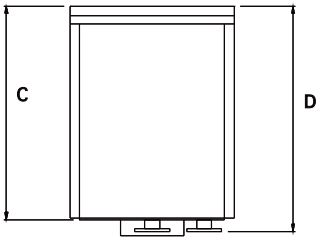

# Principal characteristics

- 6 different models, covering a range of heat output capacities from 35.6 to 484.7 kW
- Highly energy-efficient modules (up to 108%), **** category in accordance with European Directive 92/42/EEC
- Significantly reduced heat output modulation (up to 22%) with an external sensor for climate control
- Extremely compact structure, fully assembled and insulated with easily-reachable rear hydraulic connections
- Efficient output/area occupied ratio (484 kW in less than 0.7 m2)
- Stainless steel premixed methane gas burner with low pollutant emissions
- Microprocessor-controlled electronic regulation, direct/mixed activation of heating circuits using dedicated modules (optional Clip-ins or RVA regulators)
- Remote management option using a remote control unit from the Eutronic range (optional)

1. Boiler body
2. 230V gas valve
3. Minimum gas pressure regulator
4. Venturi
5. Air filter
6. Flame inspection hole
7. Air pressure regulator
8. Ignition transformer
9. Ionisation electrode
10. Ignition electrode
11. Mesh burner
12. 230V fan
13. LMU
14. Digital pressure gauge
15. Outlet manifold
16. Burner gasket
17. Control panel
18. Support base
19. Anti-vibration stabilisers



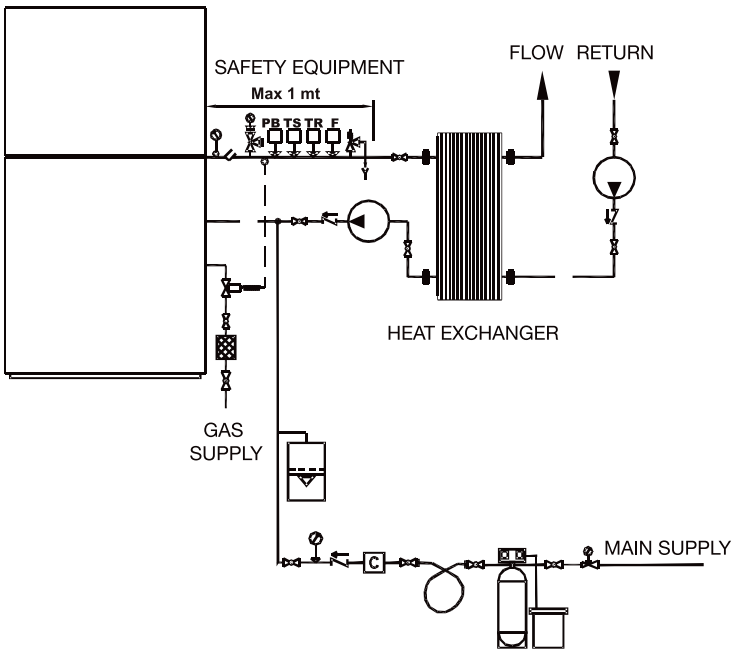



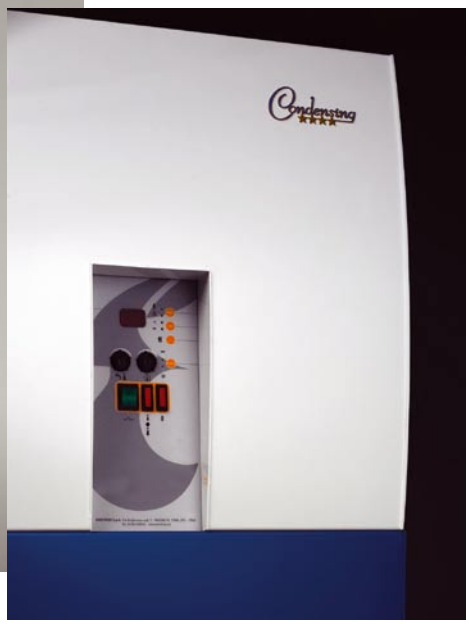

# Dimensions

| | Mod. | 210-A62 | 240-A97 | 295-B42 | 350-B95 | 435-C55 | 550-D40 |
|---|---|---|---|---|---|---|---|
| A | mm | 660 | 660 | 660 | 810 | 810 | 810 |
| A* | mm | 560 | 560 | 560 | 710 | 710 | 710 |
| B | mm | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| B* | mm | 1300 | 1300 | 1300 | 1300 | 1410 | 1410 |
| C | mm | 910 | 910 | 910 | 910 | 910 | 910 |
| C* | mm | 780 | 820 | 850 | 865 | 890 | 890 |
| D | mm | 970 | 970 | 970 | 990 | 990 | 990 |
| E | mm | 420 | 420 | 420 | 460 | 460 | 460 |
| F | mm | 210 | 230 | 230 | 300 | 300 | 300 |
| G | mm | 1000 | 1000 | 1000 | 980 | 980 | 980 |
| H | mm | 10 | 10 | 10 | 30 | 30 | 30 |
| I | mm | 1200 | 1200 | 1200 | 1280 | 1280 | 1280 |
| L | mm | 210 | 210 | 210 | 210 | 210 | 210 |

* Minimum overall measurements: useful measurements of boiler (without base and panelling)

# System Installation



# Technical Characteristics

| | | | 210-A62 | 240-A97 | 295-B42 | 350-B95 | 435-C55 | 550-D40 |
|---|---|---|---|---|---|---|---|---|
| EC approval number | | | 1312BQ4281 | | | | | 1312BQ 4282 |
| Category | | | $II_{2H3P}$ | | | | | |
| Heat rating | 30/50°C | kW | 39.5/179.6 | 48.0/218.4 | 58.6/266.5 | 71.4/324.6 | 86.4/392.3 | 106.6/484.7 |
| | 60/80°C | kW | 35.6/161.8 | 43.4/197.5 | 53.0/241.0 | 64.7/294.3 | 78.0/354.5 | 96.8/440.3 |
| Heat input | | kW | 36.5/166.0 | 44.5/202.2 | 54.2/246.5 | 66.1/300.5 | 79.5/361.2 | 98.7/448.8 |
| Net heating value (NHV) | 30/50°C | % | 108.2 | 108.0 | 108.1 | 108.0 | 108.6 | 108.0 |
| | 60/80°C | % | 97.5 | 97.7 | 97.8 | 98.0 | 98.1 | 98.1 |
| Gross heating value (GHV) | 30/50°C | % | 97.7 | 97.5 | 97.6 | 97.5 | 98.0 | 97.5 |
| | 60/80°C | % | 87.7 | 87.9 | 88.0 | 88.1 | 88.3 | 88.3 |
| Yield at 30% (Pn) 92/42 | | % | 105.2 | 105.0 | 105.0 | 105.0 | 105.6 | 105.0 |
| Heat loss at mantle Pd | | % | 1.1 | 1.1 | 1.1 | 0.8 | 0.8 | 0.9 |
| Flue gas loss with burner lit Pf (Pn max) | | % | 1.4 | 1.2 | 1.1 | 1.2 | 1.1 | 1.0 |
| Flue gas loss with burner out Pfbs | | % | < 0.1 | | | | | |
| Natural Gas | Gas flow Maximum output | $m^3/h$ | 15.4 | 18.8 | 22.9 | 27.9 | 33.6 | 41.7 |
| | Gas flow Minimum output | $m^3/h$ | 4.6 | 5.6 | 6.9 | 8.4 | 10.1 | 12.5 |
| | Gas pressure (min. – max.) | mbar | 20 (15 ÷ 45) | | | | | |
| Propane Gas | Gas flow Maximum output | $m^3/h$ | 6.8 | 8.3 | 10.1 | 12.3 | 14.8 | 18.4 |
| | Gas flow Minimum output | $m^3/h$ | 2.0 | 2.5 | 3.0 | 3.7 | 4.4 | 5.5 |
| | Gas pressure (min. – max.) | mbar | 37 (25 ÷ 45) | | | | | |
| Water flow rate | ΔT = 7°C | $m^3/h$ | 19.9 | 24.3 | 29.6 | 36.2 | 43.6 | 54.1 |
| | ΔT = 10°C | $m^3/h$ | 13.9 | 17.0 | 20.7 | 25.3 | 30.5 | 37.9 |
| | ΔT = 12°C | $m^3/h$ | 11.6 | 14.2 | 17.3 | 21.1 | 25.4 | 31.6 |
| Maximum temperature of combustion products | | °C | 70 | | | | | |
| Maximum temperature of heating circuit | | °C | 80 | | | | | |
| Maximum temperature of domestic hot water | | °C | 65 | | | | | |
| Boiler operating pressure | min/max | bar | 1.5 | | | | | |
| Boiler test pressure | | bar | 7.5 | | | | | |
| $NO_x$ emissions | | mg/kWh | 20 | | | | | |
| Class of $NO_x$ (according to EN483) | | | 5 | | | | | |
| CO emissions | | mg/kWh | 62 | | | | | |
| Boiler water content | | l | 60 | 71 | | 95 | | 115 |
| Weight when empty | | Kg | ~295 | ~330 | ~350 | ~440 | ~445 | ~490 |
| Electrical power consumption min/max | | W | 46/124 | 46/129 | 46/145 | 48/230 | 35/460 | 69/768 |
| Flue exhaust outlet | | mm | 250 | 300 | 300 | 350 | 350 | 350 |
| Flue output (max) | | $m^3/h$ | 326 | 397 | 484 | 590 | 709 | 881 |
| Boiler water connection flanges | | | DN 50 – PN6 | | | DN 65 – PN6 | | |
| Boiler gas connection | | | 1" 1/4 | | | 1" 1/2 | | |
| Methane gas pressure (G20) at intake | | mbar | Min 12/max 45 | | | | | |
| Condensate | | l/h | 15.8 | 17.5 | 21.5 | 31.0 | 34.5 | 38.7 |
| Star marking | | | ★ ★ ★ ★ | | | | | |
| Electrical power supply | | | 230V – 50Hz | | | | | |

## Options:

- Multi-zone controls
- Boiler headers
- Flue headers

## Warranty:

5-years on the boiler shell, 5-years on the burner and 2-years on all other parts. * Replacement spares carry a 2-year warranty.

*Subject to our standard terms and conditions.

EVINOX HEATING

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