

Gas Condensing Technology

**VITODENS® 200-W, B2HA**

**VITODENS® 200-W, B2HB**



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Vitodens 200-W, B2HA – 71 to 530 MBH  
Vitodens 200-W, B2HB – 12 to 199 MBH  
Multi-boiler installation – 32 to 4240 MBH (for models 45 to 150)

Gas-fired condensing technology for outstanding performance, reliability and comfort



Vitotronic 200 control with graphic user interface

### Efficient by design

At the core of the new Vitodens 200, B2HA and B2HB are the Viessmann stainless steel Inox-Radial heat exchanger and Matrix cylinder burner. Together, they allow the greatest amount of heat extraction to be achieved with minimal loss.

### Intelligent combustion system

The new Vitodens 200, B2HA and B2HB is optimized for maximum performance with the intelligent Lambda Pro combustion management system, which adapts combustion to changing gas qualities and operating conditions automatically. This unique function becomes increasingly important as gas supplies vary in quality and heating value.

### Award winning control unit

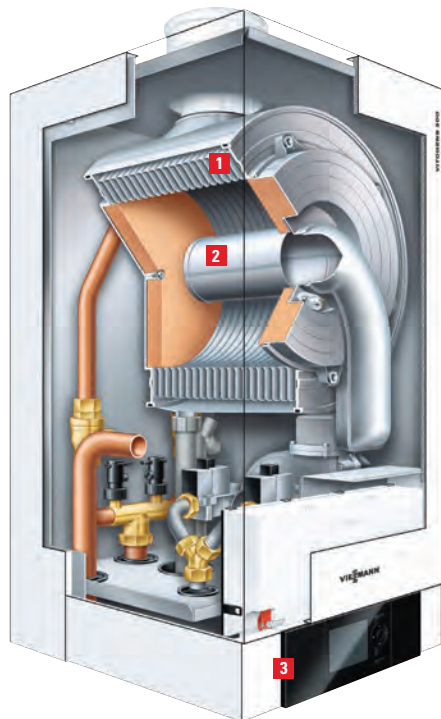
The intuitive Viessmann-made Vitotronic 200, HO1B control manages the entire heating system and ensures economical performance and maximum comfort at all times. The user-friendly, menu-driven control is capable of displaying multi-line text and graphics on a backlit display. The high-contrast, monochrome display offers excellent readability under poor lighting conditions. The outdoor reset function automatically adapts the boiler operating temperature to the changing outdoor temperature. This reduces fuel consumption up to 15%, giving you excellent returns year after year on a modest initial investment. Plus, with system control for multiple zone space and DHW heating, the Vitotronic 200, HO1B offers even greater heating flexibility without additional external controls.

### Your environmental choice

The Vitodens 200 is your efficient and environmentally-friendly choice for all applications. The low-emission Matrix cylinder burner guarantees clean, low-NOx combustion, while Lambda Pro ensures the highest efficiency at all times. With the Vitodens 200, you can actively contribute to protecting the environment – and your wallet – without compromising your warmth and comfort.

### Strength in numbers

As many as eight Vitodens 200 gas-fired condensing boilers can be combined in a single prefabricated cascade system, with inputs up to 4240 MBH. As a cascade system, the boilers are staged to meet fluctuating heating demands, it maintains maximum efficiency by precisely matching the load. A cascade system can also prevent interruption of heating plant operation, with multiple boilers available for back-up.



- 1 Inox-Radial heat exchanger
- 2 Modulating Matrix cylinder burner
- 3 Vitotronic 200 control with graphic user interface

Product not exactly as illustrated.



### Vitodens 200-W Cascade System

- 1 Vitodens 200-W, B2HA/B2HB gas
- 2 Low-Loss Header
- 3 Vitotronic 300-K MW2C Cascade Control
- 4 Circulators, check valves
- 5 Distribution manifold

### Specifications

- Viessmann-made titanium-infused stainless steel Inox-Radial heat exchanger constructed to CSA B51 and ASME Section IV
- Viessmann-made stainless steel MatriX cylinder burner
- 10 models from 68 to 530 MBH (single-boiler installation)
- Exceeds Energy Star® Efficiency Requirements
- Suitable for altitude levels up to 10,000 ft. / 3,000 m

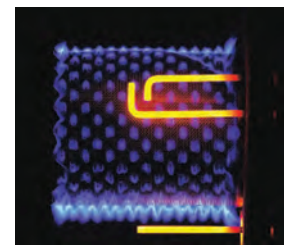
For technical data, see back page.

### Benefits at a glance

- Best value in its class with new industry-leading technology and the most standard features
- B2HA-88: smallest commercial boiler available in the Viessmann portfolio
- Low-emission combustion for environmentally-friendly operation
- Intelligent Lambda Pro gas management system automatically adjusts to different gas qualities for optimum efficiency and performance
- New Vitotronic 200 control features large display with text and graphics for user-friendly operation
- Extended application range with increased capacity up to 530 MBH (single boiler) / 4240 MBH (cascade of 8 boilers)
- Modulation ratio up to 6.5:1 ensures extremely high efficiency
- Different venting options and greater venting flexibility with vent length up to 180 ft.
- Common venting up to four boilers



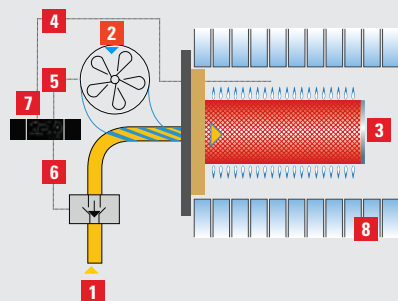
Stainless steel Inox-Radial heat exchanger



Low-emission, Viessmann-made MatriX cylinder burner

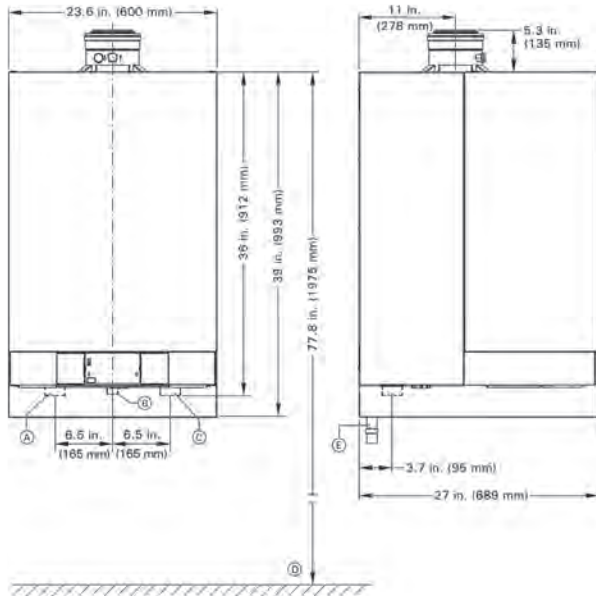
### What is Lambda Pro?

By continuously monitoring the flame quality of the MatriX cylinder burner, the Lambda Pro combustion management system automatically adjusts the gas and combustion air ratio. Without any manual adjustments or conversions, the Vitodens 200, B2HA and B2HB always maintain optimal performance.



- |                          |                      |
|--------------------------|----------------------|
| 1 Gas supply             | 5 Air signal         |
| 2 Combustion air         | 6 Gas signal         |
| 3 MatriX cylinder burner | 7 Vitotronic control |
| 4 Flame signal           | 8 Heat exchanger     |

# Technical Data



## Legend

- (A) Boiler Supply
- (B) Gas Connection, 1' NPTF
- (C) Boiler Return
- (D) Recommended Height (Single boiler system)
- (E) Condensate Drain

| Model   |          | 94     | 125    | 160    | 199    | 285    | 311    | 352    | 399    | 530    |
|---|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Maximum Input (NG)  | MBH      | 94     | 125    | 160    | 199    | 285    | 311    | 352    | 399    | 530    |
| Minimum Input (NG)  | MBH      | 88     | 117    | 149    | 185    | 260    | 294    | 333    | 375    | 495    |
| NET AHRI Rating   | MBH      | 77     | 102    | 127    | 160    | 226    | 254    | 286    | 323    | 426    |
| AFLUE   | %        | 95     | 95     | 95     | 95     | 92     | 94.5   | 94.5   | 93.9   | 93.5   |
| <b>Overall Dimension</b>                                      |          |        |        |        |        |        |        |        |        |        |
| Width   | inches   | 17 ¾   | 17 ¾   | 19     | 19     | 19     | 19     | 19     | 23 ¾   | 23 ¾   |
| Height  | inches   | 41     | 41     | 43 ½   | 43 ½   | 43 ½   | 43 ½   | 43 ½   | 44 ½   | 44 ½   |
| Depth (Length)  | inches   | 15.7   | 15.7   | 21     | 21     | 21     | 21     | 21     | 27.1   | 27.1   |
| Weight  | lbs      | 110    | 110    | 210    | 210    | 194    | 194    | 194    | 298    | 298    |
| Boiler Water Content  | USG      | 1.02   | 1.02   | 3.85   | 3.85   | 3.4    | 3.4    | 3.4    | 4      | 4      |
| Heat Exchanger Surface  | ft²      | 12.96  | 12.96  | 31.99  | 28.88  | 28.88  | 28.88  | 28.88  | 36.78  | 36.78  |
| Maximum Operating Pressure                                    | psig     | 45     | 45     | 60     | 60     | 60     | 60     | 60     | 80     | 80     |
| <b>Minimum Gas Supply Pressure</b>                            |          |        |        |        |        |        |        |        |        |        |
| Natural Gas   | "w.c."   | 4"     | 4"     | 4"     | 4"     | 4"     | 4"     | 4"     | 4"     | 4"     |
| Liquid Propane Gas  | "w.c."   | 10"    | 10"    | 10"    | 10"    | 10"    | 10"    | 10"    | 10"    | 10"    |
| <b>Boiler water temperature maximum</b>                       |          |        |        |        |        |        |        |        |        |        |
| Adjustable high limit (AHL) range space heating (steady rate) |          | 68-180 | 68-180 | 68-180 | 68-180 | 68-185 | 68-185 | 68-185 | 68-185 | 68-185 |
| <b>Boiler Connections</b>                                     |          |        |        |        |        |        |        |        |        |        |
| Gas Valve Connection  | NPTM     | 3/4"   | 3/4"   | 1"     | 1"     | 1"     | 1"     | 1"     | 1"     | 1"     |
| Boiler Heating Supply and Return                              | NPTM     | 3/4"   | 3/4"   | 1 ½"   | 1 ½"   | 1 ½"   | 1 ½"   | 1 ½"   | 2"     | 2"     |
| Boiler Flue Gas Connection                                    | Ø inches | 2 ¾    | 2 ¾    | 3 ¼    | 3 ¼    | 4 ¾    | 4 ¾    | 4 ¾    | 4 ¾    | 4 ¾    |
| Combustion Air Supply Connection                              | Ø inches | 2 ¾    | 2 ¾    | 3 ¼    | 3 ¼    | 4 ¾    | 4 ¾    | 4 ¾    | 4 ¾    | 4 ¾    |



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