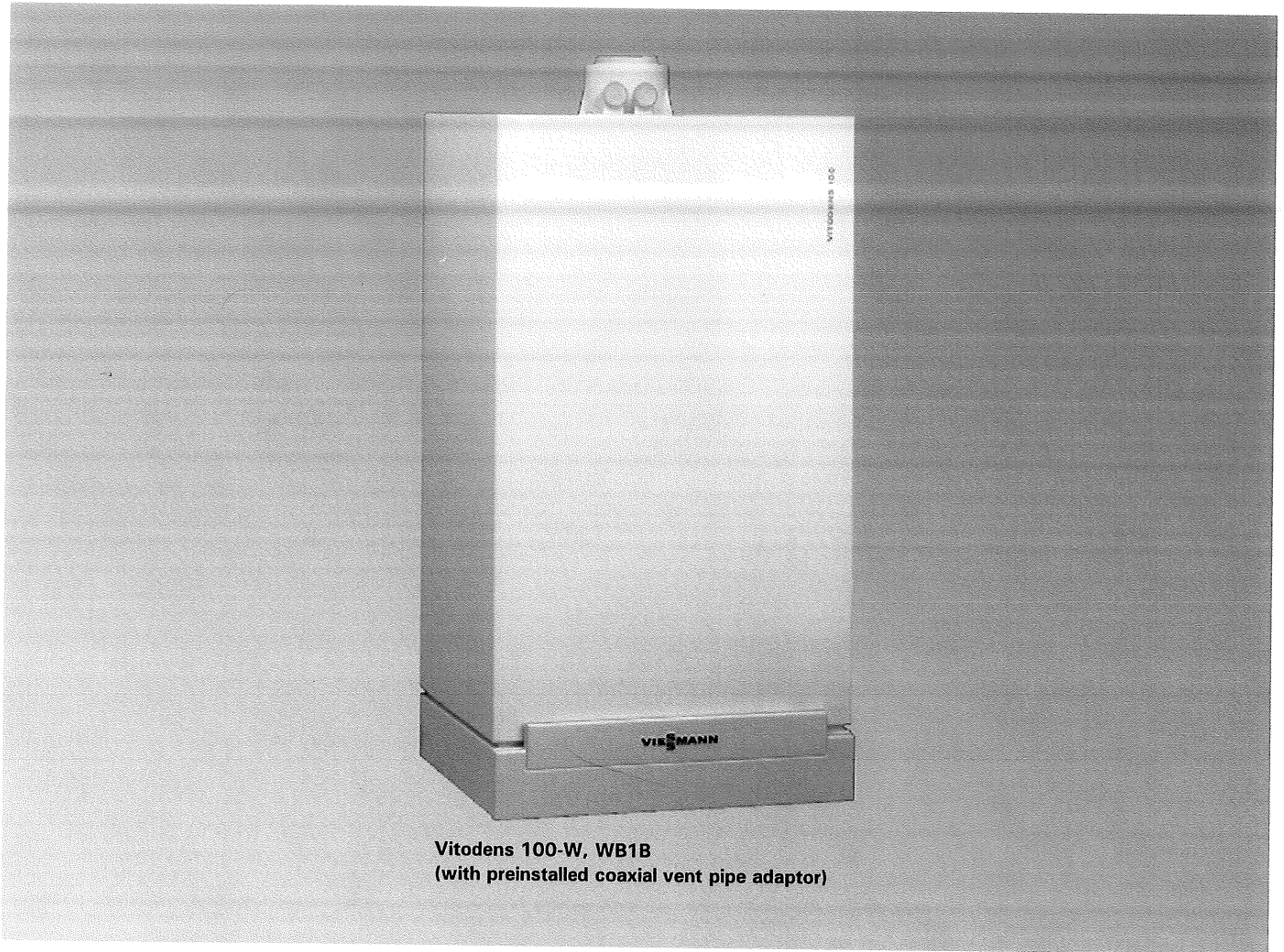


### Technical Data Manual

Model Nos. and pricing: see Price List

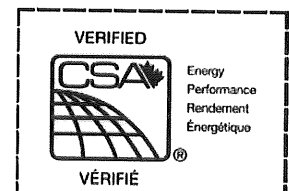
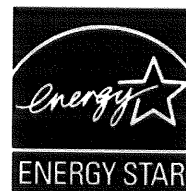
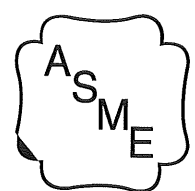


**Vitodens 100-W, WB1B**  
(with preinstalled coaxial vent pipe adaptor)

### Vitodens 100-W

#### WB1B Series

**Gas-Fired Wall-Mounted Condensing Boiler**  
with modulating stainless steel MatriX cylinder burner and stainless steel Inox-Radial heat exchanger for room air independent operation (using a direct vent system) or room air dependent operation



### VITODENS 100-W

Equipped with a Viessmann stainless steel heat exchanger for lasting performance and reliability and a modulating MatriX cylinder gas burner, the Vitodens 100-W wall-mounted condensing boiler is the perfect combination of value, quality and Viessmann technology.

#### The benefits at a glance:

- **Outstanding efficiency** of 94.0 % A.F.U.E. on all models.
- **Lasting performance**  
with Viessmann-made SA240 316Ti stainless steel Inox-Radial heat exchanger constructed to ASME Section IV and CSA B51.
- **Low-emission**  
with fully-modulating stainless steel MatriX cylinder burner. Factory calibration eliminates adjustments in the field.  
< 29 ppm NO<sub>x</sub> (at 3% O<sub>2</sub>)  
< 40 ppm CO (at 3% O<sub>2</sub>)
- **Control variety**  
Integrated boiler control interfaces with any level of external control - from room thermostat to outdoor reset and more.
- **Compact, lightweight design**  
and zero clearance to combustibles make it a great choice for limited-space installations.
- **Extremely quiet operation;**  
quieter than most refrigerators.  
< 50 dBA (at 1 meter / 3.3 ft.)
- **Easy installation, service and maintenance**  
with all pipe connections located at the bottom and serviceable components easily accessible from the front.
- **Multiple venting options**
  - Horizontal or vertical sealed combustion coaxial vent system (factory supplied).
  - Horizontal, vertical or hybrid sealed combustion double-pipe vent system (field supplied).
  - Horizontal or vertical single-wall vent system (field supplied).
- **Suitable for high altitude levels**  
of up to 10,000 ft. / 3,000 m **without deration.**
- **Built-in automatic frost protection**  
allows boiler to be shut off for an extended period of time while protecting it against freeze-up.
- **Limited lifetime warranty**  
in residential applications.

Recommended Minimum Service Clearances

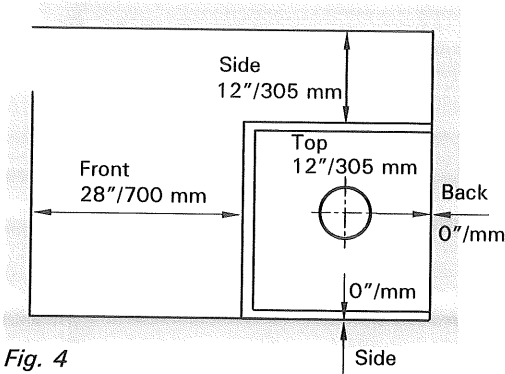


Fig. 4

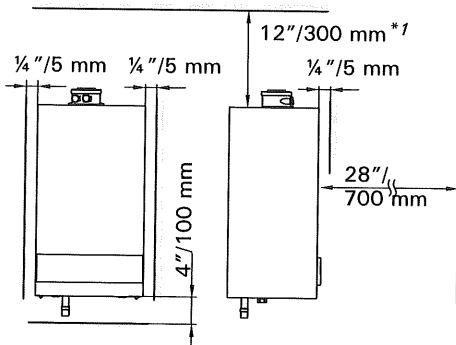


Fig. 5

Minimum Clearances to Combustibles

Top	Front	Rear	Left	Right	Vent pipe* 1
0	0 AL, CL	0	0	0	0

AL = Alcove

CL = Closet

\*1 Refer to the Installation Instructions of the Vitodens Venting System for details.

Note:

The Vitodens 100-W boiler has passed the zero inches vent clearance to combustibles testing requirements provided by the boiler Harmonized Standard ANSI Z21.13, CSA 4.9.2005 and therefore is listed for zero clearance to combustibles when vented with a single wall special venting system (AL-29-4C material) or UL/ULC-listed CPVC gas vent material. The zero inches vent clearance to combustibles for the Vitodens 100-W boiler supercedes the clearance to combustibles listing that appears on the special venting system label.

Boiler Model	Model No.	Standard heating boiler	
		WB1B 26	WB1B 35
Gas supply connection	NPTF "	¾	¾
<b>Flue gas <sup>*5</sup></b>			
Temperature (at boiler return temperature of 86°F / 30°C)			
- at rated full load	°F / °C	127 / 53	131 / 55
- at rated partial load	°F / °C	90 / 32	90 / 32
Temperature (at boiler return temperature of 140°F / 60°C)	°F / °C	167 / 75	172 / 78
<b>Flue gas value</b>			
Mass flow rate (of flue gas)			
- at rated full load	lbs/h	79.2	100.1
	kg/h	36.0	45.5
- at rated partial load	lbs/h	33.0	33.0
	kg/h	15.0	15.0
Available draught	Pa	100	100
	mbar	1.0	1.0
<b>Flue gas temperature sensor limit</b>	°F / °C	230 / 110	230 / 110
<b>Average condensate flow rate <sup>*6</sup></b>			
with natural gas			
- T <sub>S</sub> /T <sub>R</sub> = 122/86°F / 50/30 °C	USG/day	1.95-2.3	2.5-2.8
	ltr/day	8-9	9.4-10.5
<b>Condensate connection <sup>*7</sup></b>	hose nozzle		
	Ø in	1	1
<b>Boiler flue gas connection <sup>*8</sup></b>	Ø in/mm	2 <sup>3</sup> / <sub>8</sub> /60	2 <sup>3</sup> / <sub>8</sub> /60
<b>Combustion air supply connection <sup>*8</sup></b>	outer Ø in/mm	4/100	4/100
<b>Noise level (at 1 meter)</b>			
- at full load	(dB)	47	49
- at partial load	(dB)	40	42
<b>High altitude (factory set) <sup>*9</sup></b>	ft. / m	0-5,000 / 0-1,500	0-5,000 / 0-1,500

<sup>\*5</sup> Measured flue gas temperature with a combustion air temperature of 68°F / 20°C.

<sup>\*6</sup> Based on typical boiler cycles, including partial load conditions.

<sup>\*7</sup> Requires 1" / 25 mm tubing. See Vitodens 100-W Installation Instructions for details.

<sup>\*8</sup> For an overview of venting options refer to the appendix starting on page 19. For detailed information refer to the Vitodens Venting System Installation Instructions.

<sup>\*9</sup> For 5,000 to 10,000 ft / 1,500 to 3,048 m operation, a coding address change is required. Refer to the Installation and Service Instructions for details.

► For information regarding other Viessmann System Technology componentry, please reference documentation of respective product.

# Technical Data

## Technical Data

Boiler Model	Model No.	Standard heating boiler	
		WB1B 26	WB1B 35
<b>Natural gas and LPG</b>			
CSA input	MBH	37-91	37-118
	kW	10.8-26.7	10.8-34.6
CSA output/DOE *1	MBH	34-83	34-108
heating capacity	kW	9.9-24.3	9.9-31.6
Net I=B=R rating *2	MBH	72	94
Heat exchanger surface area	ft. <sup>2</sup>	10.23	10.23
	m <sup>2</sup>	0.86	0.86
<b>Min. gas supply pressure</b>			
Natural gas	"w.c.	4	4
LPG	"w.c.	10	10
<b>Max. gas supply pressure *3</b>			
Natural gas and LPG	"w.c.	14	14
<b>A.F.U.E.</b>	%	94.0	94.0
<b>Weight</b>	lbs	78	78
	kg	34.1	34.1
<b>Shipping weight</b>	lbs	95	95
	kg	43	43
<b>Boiler water content</b>	USG	0.87	0.87
	ltr	3.3	3.3
<b>Boiler max. flow rate *4</b>	GPM	6.2	6.2
	ltr/h	1400	1400
<b>Max. operating pressure</b> at 210°F / 99°C	psig	45	45
	bar	3	3
<b>Boiler water temperature</b>			
- Adjustable high limit (AHL) range			
- space heating (steady state)	°F / °C	86 to 176 / 30 to 80	
- DHW production (set-point)	°F / °C	172 / 78	
- Fixed high limit (FHL)	°F / °C	210 / 99	
<b>Boiler connections</b>			
Boiler heating supply and return	NPTM (male) "	¾	¾
Pressure relief valve	NPTF (female) "	¾	¾
Drain valve	(male thread)	¾	¾
<b>Dimensions</b>			
Overall depth	inches	14 <sup>1</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>8</sub>
	mm	360	360
Overall width	inches	15 <sup>3</sup> / <sub>4</sub>	15 <sup>3</sup> / <sub>4</sub>
	mm	400	400
Overall height	inches	28 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>
	mm	725	725

\*1 Output based on 140°F / 60°C, 120 °F / 49°C system supply/return temperature.

\*2 Net I=B=R rating based on piping and pick-up allowance of 1.15.

\*3 If the gas supply pressure exceeds the maximum gas supply pressure value, a separate gas pressure regulator must be installed upstream of the heating system.

\*4 See "Maximum Flow Rates" on pages 15 to 17 in this manual.