

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that WENDY MILLER

Located At 193 MAINE AVE

Job ID: 2012-05-4000-HVAC

CBL: 406- C-014-001

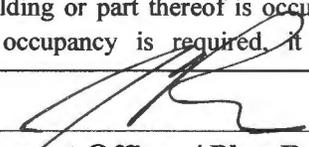
has permission to install an HVAC system (Single Family Residence).

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

 05/21/2012
Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
 - **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
 - **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**
1. Close-In: Electrical, framing, plumbing
 2. Final inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

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Acting Director of Planning and Urban Development
Gregory Mitchell

Job ID: 2012-05-4000-HVAC

Located At: 193 MAINE AVE

CBL: 406- C-014-001

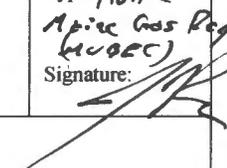
Conditions of Approval:

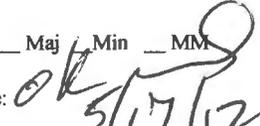
Building

1. The installation (including ventilation) must comply with UL, the Manufacturers' Listing, MUBEC (IRC, 2009), and State of Maine Gas Regulations.
2. Separate permits are required for any electrical: plumbing, sprinkler, fire alarm, HVAC systems, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
3. Maintain proper setback(s) from property lines/buildings and proper clearances from vertical openings when direct venting
4. A Carbon Monoxide (CO) alarm shall be installed in each area within or giving access to bedrooms. That detection must be powered by the electrical service (plug-in or hardwired) in the building and battery.

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-05-4000-HVAC	Date Applied: 5/15/2012	CBL: 406- C-014-001	
Location of Construction: 193 MAINE AVE	Owner Name: WENDY MILLER	Owner Address: 193 MAINE AVE PORTLAND, ME 04103	Phone:
Business Name:	Contractor Name: Burnham Charlie Heating	Contractor Address: PO Box 382 FREEPORT MAINE 04032	Phone: (207) 865-9010
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: R-3
Past Use: Single Family Dwelling	Proposed Use: Same: Single Family Dwelling - to install new Viesman Heating system	Cost of Work: \$10,000.00	CEO District:
		Fire Dept: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: Type: HVAC Maine Gas Reg. 5 (MURCC) Signature: 
Proposed Project Description: Viesman gas		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Brad		Zoning Approval	

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>___ Maj ___ Min ___ MM</p> <p>Date:  5/17/12</p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: </p>
	CERTIFICATION		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



FILL IN AND SIGN WITH INK

Entered 5/15/12
C/S

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

R-3

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

2012 - 05 - 4000 - HVAC

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 193 Maine Ave 406 Use of Building CO14 Date 5-15-12

Name and address of owner of appliance Wendy Miller

Installer's name and address Charlie Burnham Heating, P.O. Box 382 Freeport ME 04931
Telephone _____

Location of appliance:
 Basement
 Attic
 Floor
 Roof

Type of Fuel:
 Gas
 Oil
 Solid

Appliance Name: Viesman

U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

RECEIVED
MAY 15 2012
Dept. of Building Inspections
City of Portland Maine

Type of Chimney:
 Masonry Lined with CPVC
 Factory built _____
 Metal
 Factory Built U.L. Listing # _____
 Direct Vent
 Type _____ UL# _____

Type of Fuel Tank
 Oil
 Gas

Size of Tank 2 - 110 gal

Number of Tanks two

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 9750 10,000

Permit Fee: \$ 120

The Type of License of Installer:

Master Plumber # _____
 Solid Fuel # _____
 Oil # _____
 Gas # PNT 6050
 Other _____

Approved

Approved with Conditions

Fire: _____
Ele.: _____
Bldg.: _____

See attached letter or requirement

Inspector's Signature _____ Date Approved _____

Signature of Installer [Signature]



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Receipts Details:

Tender Information: Check , Check Number: 8151

Tender Amount: 120.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 5/15/2012

Receipt Number: 43937

Receipt Details:

Referance ID:	6514	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	120.00	Charge Amount:	120.00
Job ID: Job ID: 2012-05-4000-HVAC - Viesman gas			
Additional Comments: 193 Maine Ave.			

Thank You for your Payment!

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



Technical Data

Technical Data

		Standard heating boiler	
Boiler Model	Model No.	WB1B 26	WB1B 35
Natural gas and LPG			
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. ²	10.23	10.23
	m ²	0.86	0.86
Min. gas supply pressure			
Natural gas	"w.c.	4	4
LPG	"w.c.	10	10
Max. gas supply pressure^{*3}			
Natural gas and LPG	"w.c.	14	14
A.F.U.E.	%	95.2	95.2
Weight	lbs	78	78
	kg	34.1	34.1
Shipping weight	lbs	95	95
	kg	43	43
Boiler water content	USG	0.87	0.87
	ltr	3.3	3.3
Boiler max. flow rate ^{*4}	GPM	6.2	6.2
	ltr/h	1400	1400
Max. operating pressure at 210°F / 99°C	psig	45	45
	bar	3	3
Boiler water temperature			
– Adjustable high limit (AHL) range		86 to 176 / 30 to 80	
– space heating (steady state)	°F / °C	172 / 78	
– DHW production (set-point)	°F / °C		
– Fixed high limit (FHL)		210 / 99	
Boiler connections			
Boiler heating supply and return	NPTM (male) "	¾	¾
Pressure relief valve	NPTF (female) "	¾	¾
Drain valve	(male thread)	¾	¾
Dimensions			
Overall depth	inches	14 ¹ / ₈	14 ¹ / ₈
	mm	360	360
Overall width	inches	15 ^¾	15 ^¾
	mm	400	400
Overall height	inches	28 ^½	28 ^½
	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.

		Standard heating boiler	
Boiler Model	Model No.	WB1B 10-26	WB1B 10-35
Gas supply connection	NPTF *	¾	¾
Flue gas *5			
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
Flue gas value			
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
Flue gas temperature sensor limit	°F / °C	230 / 110	230 / 110
Average condensate flow rate *6			
with natural gas			
- T _S /T _R = 122/86°F / 50/30 °C	USG/day	1.95-2.3	2.5-2.8
	ltr/day	8-9	9.4-10.5
Condensate connection *7	hose nozzle		
	Ø in	1	1
Boiler flue gas connection *8	Ø in/mm	2 ³ / ₈ /60	2 ³ / ₈ /60
Combustion air supply connection *8	outer Ø in/mm	4/100	4/100
Noise level (at 1 meter)			
- at full load	(dB)	47	49
- at partial load	(dB)	40	42
High altitude (factory set) *9	ft. / m	0-5,000 / 0-1,500	0-5,000 / 0-1,500

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

*6 Based on typical boiler cycles, including partial load conditions.

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

*8 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.

*9 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.

Vitodens 100-W

Vitodens 100-W, WB1B 26/35
without piping connections

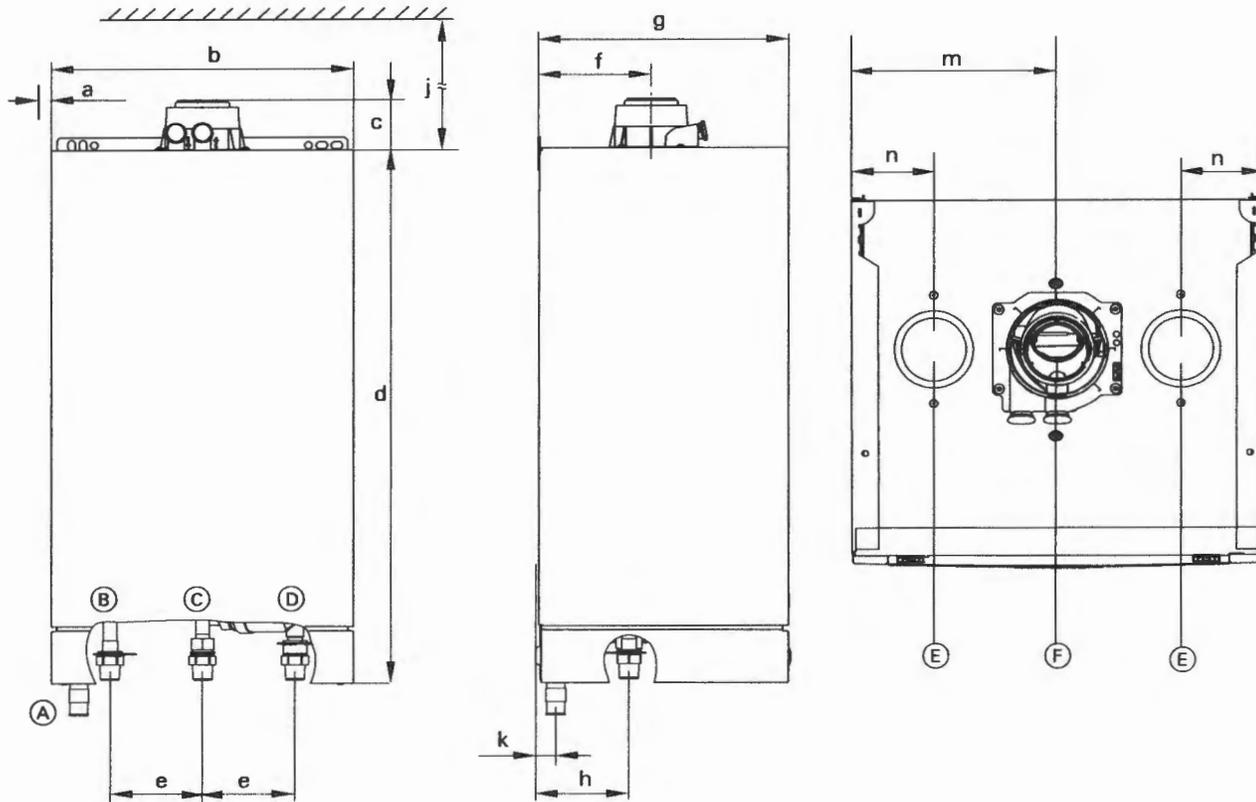


Fig. 1 Front view

Side view

Top view

Connections Vitodens 100-W,
WB1B 10-26, 10-35

Legend

Connections

- (A) Condensate drain, plastic hose
Ø 1" / 25mm
- (B) Boiler water supply, NPT 3/4" (male
thread)
- (C) Gas connection, NPT 3/4" (male thread)
- (D) Boiler water return, NPT 3/4" (male
thread)
- (E) Combustion air opening for double pipe
system
- (F) Combustion air opening for co-axial
system

Dimensions

- a* See fig. 2 for dimensions
- b* 15 3/4" / 400 mm
- c* 2 5/8" / 68 mm
- d* 28 1/2" / 725 mm
- e* 4 7/8" / 123 mm
- f* 6 1/8" / 156 mm
- g* 14 1/8" / 360 mm
- h* 5" / 125 mm
- j* 9 7/8" / 250 mm
- k* 1 1/4" / 31 mm
- m* 7 7/8" / 200 mm
- n* 3 1/8" / 80 mm

**Vitodens 100-W, WB1B 26/35
with piping connections**

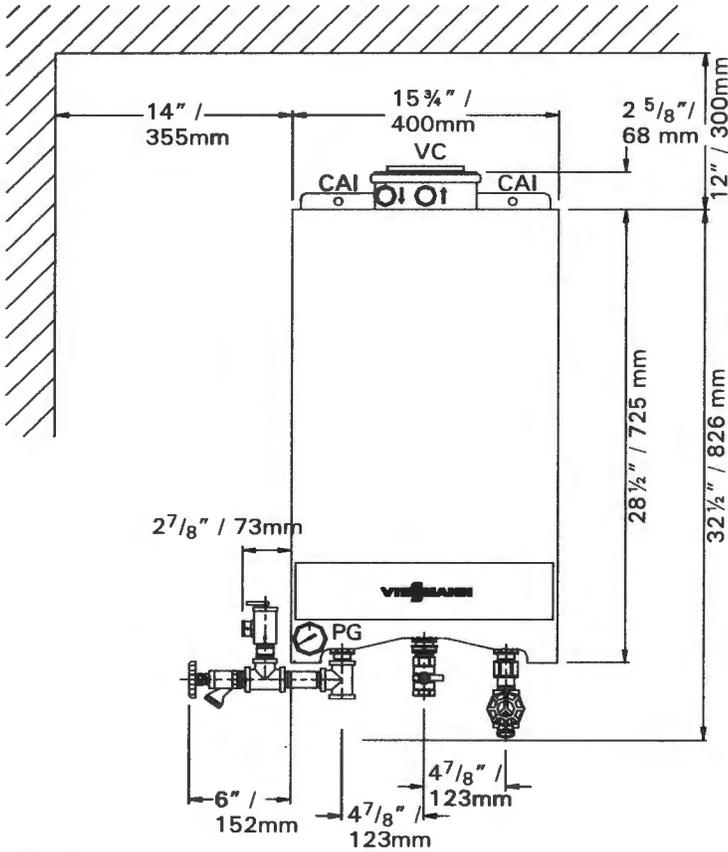


Fig. 2

**Piping connections for Vitodens
100-W, WB1B 10-26 and 10-35
(factory supplied)**

Legend

- BWR Boiler water return, 3/4"
- BWS Boiler water supply, 3/4"
- BD Boiler drain
- BF Boiler fill
- GC Gas connection, 3/4" NPTM (male thread)
- PRV Pressure relief valve
- PG Pressure gage
- VC Venting connection
- CAI Combustion air inlet connection (optional)

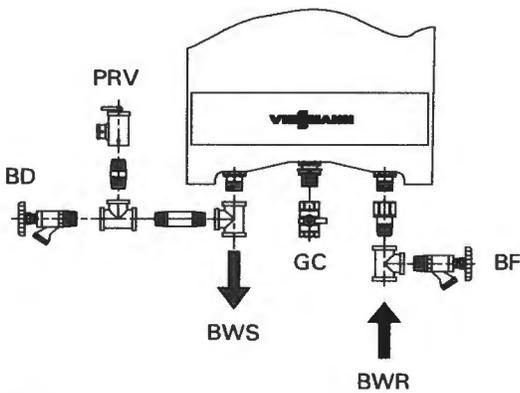


Fig. 3

Recommended Minimum Service Clearances

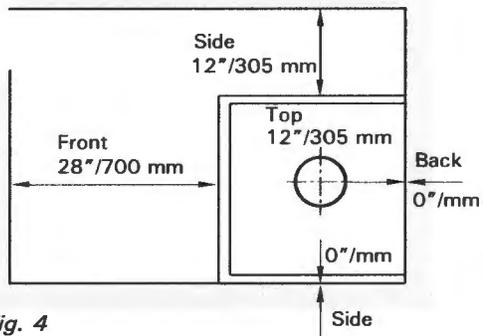


Fig. 4

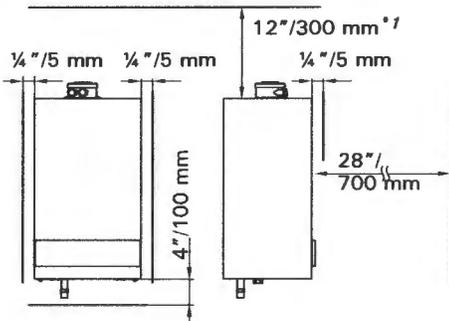


Fig. 5

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.

IMPORTANT:
Do not use any DWV plumbing pipes to vent this boiler.

CPVC or Stainless Steel Vent System

Vent System ¹

Vent System Diameter	2"	3"	4"
----------------------	----	----	----

Diameter

Hybrid Vent System
Horizontal Intake / Vertically Vented

Maximum Equivalent a + b ^{1a} Length (EqL) 86 / 26 164 / 50 200 / 61

ft. / m

Room Air Independent Operation

① Boiler Vent Adaptor included with boiler

② Adaptor, for stainless steel 60/100 to 80/125 (outer shell removed) — 7424 112

Order No.

② Adaptor(s), CPVC 60mm to 2" 7134 769

Order No.

③ Adaptor(s), stainless steel 80mm to 3" — field supplied field supplied and field supplied
3" to 4" (not shown) — — field supplied

③ Adaptor(s), CPVC 2" to 3" — field supplied field supplied and field supplied
3" to 4" (not shown) — — field supplied

④ Venting Support ² field supplied

⑤ ULC/UL listed Stainless Steel Vent Material ^{1a} for EqL calculations, use:
■ 45° Elbow EqL = 2ft. / 0.6m
■ 90° Elbow EqL = 3ft. / 0.9m

field supplied

or

⑤ ULC/UL listed CPVC Vent Material ^{1b} for EqL calculations, use:
■ 45° Elbow EqL = 3ft. / 0.9m
■ 90° Elbow EqL = 5ft. / 1.5m

field supplied

⑥ Adaptor(s), CPVC 60mm to 2" 7134 769

Order No.

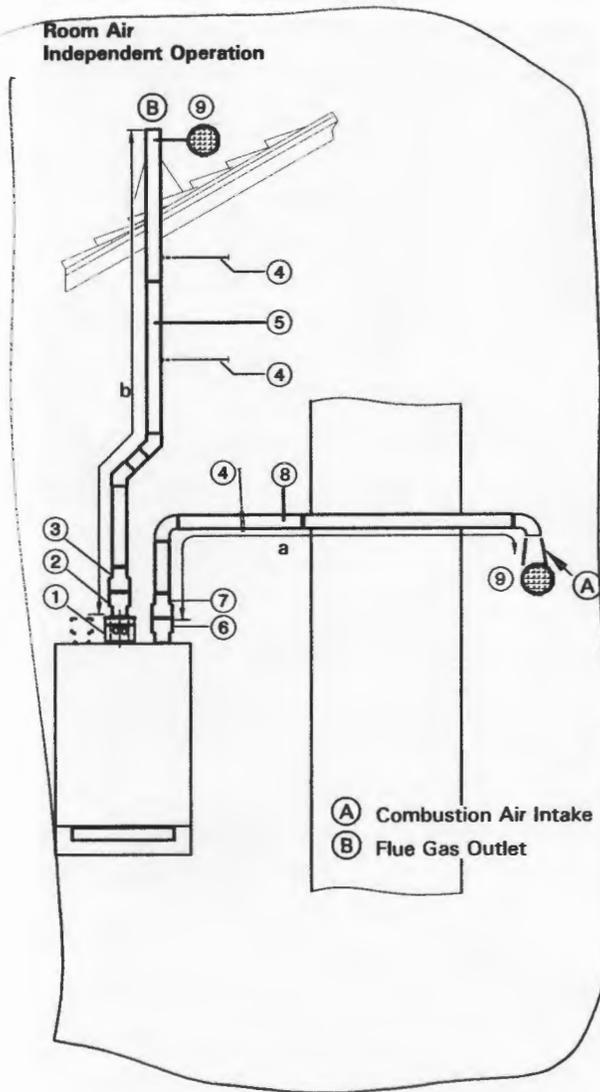
⑦ 2" to 3" or 2" to 4" field supplied

⑧ Combustion Air Intake Vent Material Allowable materials: see note below ³ field supplied

⑨ Bird Screen c/w Termination for stainless steel or field supplied

⑨ Bird Screen (Set of 2) for CPVC 7134 780 7134 781 7134 782

Order No.



^{1a} Stainless steel vent material must be ULC/UL listed, stainless steel AL29-4C® for Category IV boilers. Suggested sources: Flexmaster Canada Ltd. / Z-Flex (US) Inc., Heat-fab, ProTech Systems Inc., or Security Chimneys Int'l.
^{1b} CPVC vent material must be ULC/UL listed, for Category IV boilers. Suggested source: IPEX Inc.
² Boiler cannot support weight of vent system. Support venting as prescribed in vent manufacturer's installation instructions.
³ Combustion air supply pipe may be made of the following materials: ABS, CPVC, PVC, or stainless steel.
 ▶ Do not include first 90° elbow in equivalent vent length calculations (this applies to all vent materials).
 ▶ A maximum of 5 x 90° elbows may be installed in the air intake and flue outlet combined; do not exceed maximum equivalent vent length.
 ▶ Always follow Viessmann venting installation instructions 5368 815.