

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND

# BUILDING PERMIT

This is to certify that PETER » MITSCHELE

Located At 67 DOUGLASS ST.

Job ID: 2011-07-1684-SF

CBL: 078 - - B - 002 - 001 - - - - -

has permission to Install a Direct-Vent HVAC System

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

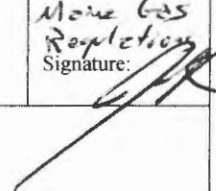
\_\_\_\_\_  
**Fire Prevention Officer**

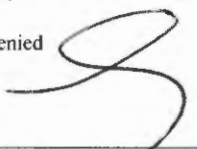
  
09/20/2011  
**Code Enforcement Officer / Plan Reviewer**

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

**City of Portland, Maine - Building or Use Permit Application**

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

Job No: 2011-07-1684-SF 2011-6523 HVAC	Date Applied: 9/13/2011	CBL: 078 - - B - 002 - 001 - - - -	
Location of Construction: 67 DOUGLASS ST	Owner Name: PETER MITSCHELE	Owner Address: 240 WOODVILLE RD FALMOUTH, ME -04105	Phone:
Business Name:	Contractor Name: WAYNE CURRY	Contractor Address: 3 KNOX ROAD, WINDHAM, ME 04062	Phone: (207) 671-5520
Lessee/Buyer's Name:	Phone:	Permit Type: HVAC	Zone: R-5
Past Use: Single Family Dwelling	Proposed Use: Same: single family dwelling - to install Bosch heating system	Cost of Work: \$9,000.00	CEO District:
		Fire Dept: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input checked="" type="checkbox"/> N/A	Inspection: Use Group: Type: HVAC Maine Gas Regulation Signature: 
Proposed Project Description: HVAC	Pedestrian Activities District (P.A.D.)		

Permit Taken By: Lannie	<b>Zoning Approval</b>		
<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>	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan  Date: <u>OK</u> <u>9/16/11</u>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied  Date:	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in Dist or Landmark <input type="checkbox"/> Does not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied  Date: 
	<b>CERTIFICATION</b>		

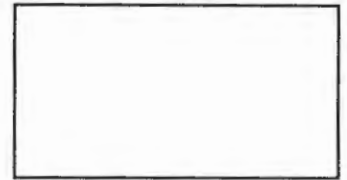
I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application 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

# APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



R-5 78-B-2 #2011-6523

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

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 67 Douglass Street Use of Building SFR Date 9/10/11

Name and address of owner of appliance ~~Elizabeth Mitschek~~ Elizabeth Mitschek

Installer's name and address Wayne Curry 3 Knox Rd Windham  
Telephone 671-5520

### Location of appliance:

- Basement
- Floor
- Attic
- Roof

### Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name: Bosch

U.L. Approved  Yes  No

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

IF NO Explain: \_\_\_\_\_

### The Type of License of Installer:

- Master Plumber # \_\_\_\_\_
- Solid Fuel # \_\_\_\_\_
- Oil # \_\_\_\_\_
- Gas # PNT6975
- Other \_\_\_\_\_

### Type of Chimney:

- Masonry Lined  
Factory built \_\_\_\_\_
- Metal  
Factory Built U.L. Listing # \_\_\_\_\_

Direct Vent  
Type PVC UL# \_\_\_\_\_  
24" clearance

### Type of Fuel Tank

- Oil
- Gas Natural

Size of Tank \_\_\_\_\_

Number of Tanks \_\_\_\_\_

Distance from Tank to Center of Flame \_\_\_\_\_ feet.

Cost of Work: \$ 8,500

Permit Fee: \$ \_\_\_\_\_

RECEIVED  
SEP 13 2011  
Dep. of Building Inspections  
City of Portland Maine

9.15.11

### Approved

Fire: \_\_\_\_\_  
Ele.: \_\_\_\_\_  
Bldg.: \_\_\_\_\_

### Approved with Conditions

- See attached letter or requirement

Inspector's Signature \_\_\_\_\_ Date Approved \_\_\_\_\_

Signature of Installer Wayne Curry

White - Inspection    Yellow - File    Pink - Applicant's    Gold - Assessor's Copy

INVOICE

\*REPRINT FROM HISTORY\*



Nelson & Small, Inc.

Import · Export · Manufacturing · Distribution of World Class Products  
Phone: (207) 775-5666 · Fax (207) 775-4303 · www.nelsonsmall.com

Invoice  
449361  
Date  
07/27/11  
Time  
12:08:26  
Control #:  
0000004613

Bill To:

Thomas D Toohey  
288 Pine Point Road  
Scarborough ME 04074

Ship To:

Thomas D Toohey  
288 Pine Point Road  
Scarborough ME 04074

Co/Cust No Order No Customer PO  
1/0000004613 23161/00 Bosch

Ter Sls Rep Approval #  
ME 16 See RGA 23160 return

Ship Via

Pay Type A/R

Terms

Net 30 Days  
Or as sold if earlier

Item Number/Description	U/M	Ordered	Shipped	Sell Price	Total
FOB Description:					
ZWB283	EA	1.000	1.000	3269.000	3,269.00 T
Bosch 95k Btu Combi Boiler NG					
SN: 1221800					
** difference paid 705.46 ** from order 23027 * \$2726.99					
**** Pd \$2726.99 cc 7/25/11 **** Returned product 7/26					
** Mail invoice to: Peter Mitschele					
240 Woodville Road					
Falmouth, ME 04105					

INVOICE DUE: 08/26/11

Remit Payment to: 0000004613 / 449361  
P.O. BOX 1420  
Portland, ME 04104-1420

SUBTOTAL: 3,269.00  
SALES TAX: 163.45

TOTAL: 3,432.45

DEPOSIT:  
AMT DUE: 3,432.45

This sale is also subject to terms and conditions of a separate credit application submitted by purchaser. A 1 1/2% monthly service charge will be applied to the balance after it becomes 30 days old.



# Greenstar™ Gas-Fired Condensing Boilers

## A Green Start to Space & Water Heating

Residential space and water heating boiler solutions  
with up to 98.7% efficiency and 57.2 to 151.6 MBH inputs.



**BOSCH**

Invented for life



LOWNOX  
EMISSIONS



# Technical specifications

Application	Space Heating + DHW			Space Heating Only		
Models	Greenstar Combi 100	Greenstar Combi 151	Greenstar 57	Greenstar 100	Greenstar 131	Greenstar 151
Description	ZWB28-3	ZWB42-3	ZBR16-3	ZBR28-3	ZBR35-3	ZBR42-3
Part Number	773B100002	7713331041	7712231416	7712231415	7712231414	7712231413
<b>Performance Specifications</b>						
Fuel	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP	NG / LP
Input Maximum (MBH)	100.8	151.6	57.2	100.8	131.9	151.6
Input Minimum (MBH)	34.6	36	12.9	24.6	36	36
DOE Heating Capacity (MBH)	89.4	134.4	50.8	89.4	116.7	134.4
Net I=B=R (MBH)	79	117	45	79	103	117
AFUE	96.0%	94.3%	96.1%	96.0%	96.0%	94.3%
Low Temp Application Efficiencies	98.5%	96.8%	98.7%	98.5%	97.5%	96.8%
DHW Flow Max ( $\Delta T$ at 72°F)	2.65 GPM	4.0 GPM	-	-	-	-
Water Volume	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)	0.952 Gal. (3.5 L)
<b>Technical Data</b>						
Weight (Without Packaging)	110.2 Lbs. (50 kg)	110.2 Lbs. (50 kg)	103.6 Lbs. (47 kg)	103.6 Lbs. (47 kg)	103.6 Lbs. (47 kg)	103.6 Lbs. (47 kg)
Dimensions W x H x D	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"	17.4" x 33.5" x 13.9"
Minimum Recommended Pipe Size	1"	1"	1"	1"	1"	1"
Supply Tappings	1"	1"	1"	1"	1"	1"
Return Tappings	1"	1"	1"	1"	1"	1"
Domestic Cold Water Supply	3/4"	3/4"	-	-	-	-
Domestic Hot Water Supply	3/4"	3/4"	-	-	-	-
Gas Connection Size	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Vent Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
Vent Material	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC	PVC / CPVC
Combustion Air Size	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
High Altitude Capability	No De-Rating up to 7,000'	De-Rated	No De-Rating up to 7,000'	No De-Rating up to 7,000'	No De-Rating up to 7,000'	De-Rated
Gas Pressure Minimum w.c.	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"	NG 3.5" - LP 8"
<b>Included Package Contents</b>						
Al-Si Heat Exchanger	✓	✓	✓	✓	✓	✓
3 Speed Grundfos Integrated Pump	✓	✓	✓	✓	✓	✓
Integrated Expansion Vessel	3.17 Gal. (12 L)	3.17 Gal. (12 L)	-	-	-	-
FW200 Weather Compensation Control	✓	✓	✓	✓	✓	✓
Heatronic III - Control PCB	✓	✓	✓	✓	✓	✓
Hydronics Manifold Bracket with NPT Connection	✓	✓	✓	✓	✓	✓
Twin Pipe Flue Adapter	✓	✓	✓	✓	✓	✓
Tank Sensor	-	-	✓	✓	✓	✓
System Supply Sensor	✓	✓	✓	✓	✓	✓
NG / LP Conversion Kit	✓	✓	✓	✓	✓	✓
Condensate Trap Drain Hose	✓	✓	✓	✓	✓	✓



# Bosch Greenstar™ overview

## Energy-saving & environmental features

- ▶ Aluminum-Silicon heat exchanger delivers high efficiency - up to 98.7% with low temperature applications (up to 96.1% AFUE).
- ▶ Low NOx emissions ahead of 2012 SCAQMD regulations.
- ▶ Simple, intelligent control options optimize efficiency and fuel consumption.
- ▶ Low electrical consumption when the boiler is in standby mode.
- ▶ Electronic ignition.
- ▶ Anti-cycle and modulation control.

## Time & labor saving installation features

- ▶ All models available as NG or LP (conversion kit included).
- ▶ Hydronics manifold bracket with NPT connection.
- ▶ Robust water side PH operating levels of 4.0 – 8.5.\*
- ▶ High altitude flexibility - 7,000' no de-rate.

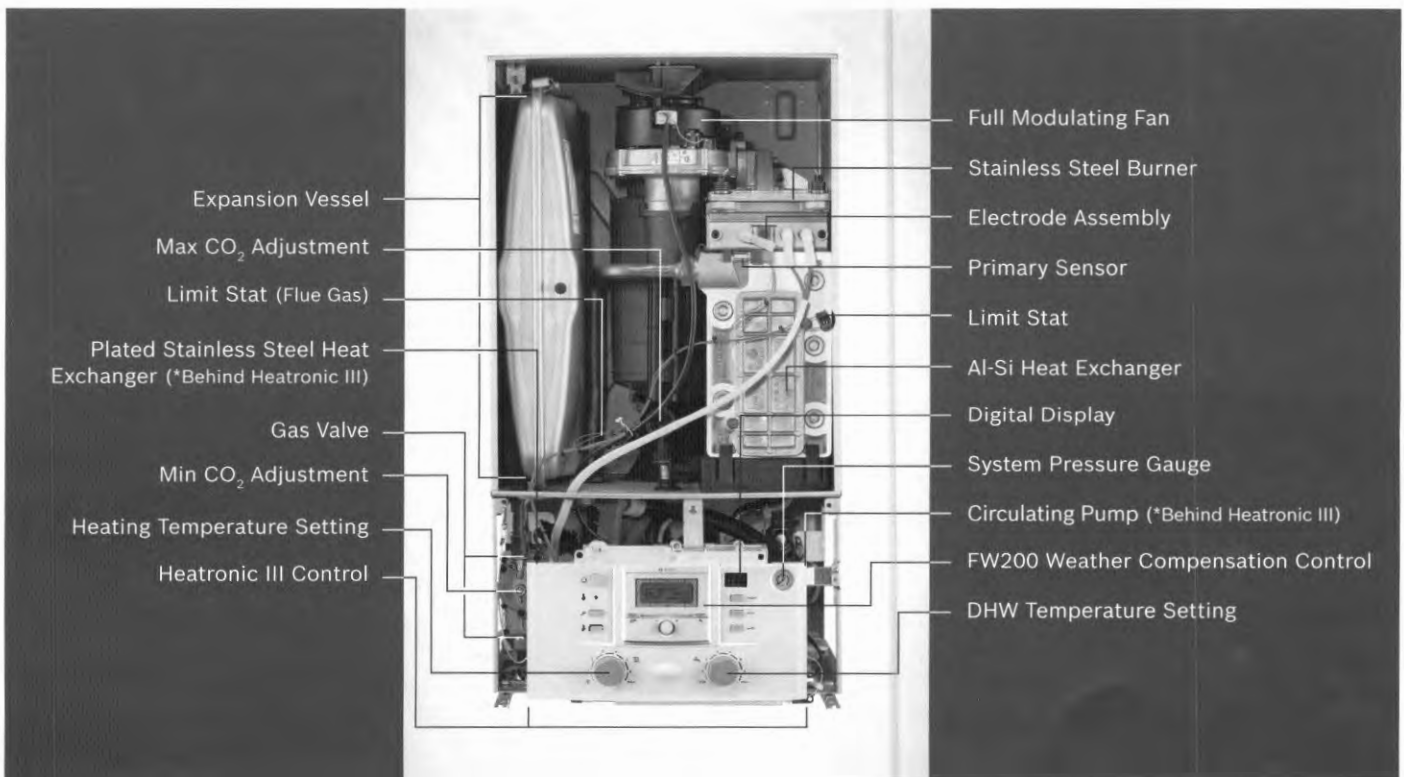
- ▶ Venting length up to 100' each way with 3" PVC pipe, up to 8 elbows.
- ▶ Venting combined length up to 81' with 2" PVC (except Bosch Greenstar 151 models).

## End user comfort & convenience features

- ▶ Limited lifetime heat exchanger warranty.\*\*
- ▶ Limited 5-year parts & labor warranty.\*\*
- ▶ Special insulation ensures ultra-quiet operation.
- ▶ Compact dimensions and built-in frost protection offer flexibility for location of installation.
- ▶ ECO mode for energy saving fuel consumption.
- ▶ Exclusive safety feature - keypad safety lock prevents unwanted tampering with the controls.
- ▶ Eligible for Federal Tax Credit.

\*Visit [www.bosch-climate.us](http://www.bosch-climate.us) to review the Installation Manual which contains further water quality information.

\*\*Limited warranty. Copies of original warranties in their entirety are available upon request. Please contact your area representative.





# PORTLAND MAINE

*Strengthening a Remarkable City, Building a Community for Life • [www.portlandmaine.gov](http://www.portlandmaine.gov)*

Director of Planning and Urban Development  
Penny St. Louis

Job ID: 2011-07-1684-SF

Located At: 67 DOUGLASS

CBL: 078 - - B - 002 - 001 - - - -

## **Conditions of Approval:**

### **Zoning**

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. without special approvals.
3. This property shall remain a single family dwelling. Any change of use shall require a separate permit application for review and approval.

### **Building**

1. The installation must comply with UL, the Manufacturers' Listing, and State of Maine Gas Regulations.
2. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, 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 photoelectric Carbon Monoxide (CO) detector 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.



# New for 2011! Bosch Greenstar™ high-efficiency, gas condensing boilers



LOW NOx  
EMISSIONS







## Efficiency with unsurpassed performance & control

This new series includes 6 compact models available in configurations ranging from 57.2 to 151.6 MBH. Energy Star® rated, these low operating cost units utilize Bosch patented condensing technology to deliver reliable performance with low emission. Bosch Greenstar boilers offer homeowners and service professionals easy access while providing a layer of security for peace-of-mind and can also be integrated with other Bosch energy efficient

products for a complete and environmentally friendly modern home.

- ▶ Ideal for detached and terraced houses, also suitable for apartments.
- ▶ Available as a space heating boiler for connection to a hot water tank.
- ▶ Available as a combi (combination) unit with integrated DHW water heating.
- ▶ Solar compatible with new control options.

# Optional accessories

Optional Accessories <i>Not Included</i>	FB100 Control	ISM2 Control	IPM2 Control	ICM Control	Cleaning Tool 1060	Cleaning Tool 1061
Description	Room Sensor	Solar Control Module	Pump Control Module	Cascade Control Module (4 Max)	Cleaning Brush Set	Cleaning Tool
Part Number	7719003525	7719003527	7719003526	7719003528	7719002502	7719002503
Product Image						

## Boiler knowledge 101

### What is a “combi” boiler?

A “combi” or combination boiler is a high efficiency water heater and a central heating boiler combined within one compact unit. Water is heated directly from the water main eliminating the need for a hot water storage tank. Because hot water is delivered to the taps or showers at high pressure it's very convenient and can save on your hot water costs.

### What is a traditional boiler?

Regular boilers – sometimes referred to as traditional or conventional boilers – are suitable for homes that already have a traditional heating and hot water system that require a separate hot water tank. They are a good

option for any home where a large volume of stored hot water is required (homes with 3 or more bathrooms, or areas where the water pressure is low).

### What is AFUE?

AFUE is a measure of how energy efficient the appliance is in its annual fuel consumption. Specifically, AFUE is the ratio of heat output compared to the total energy consumed by the boiler. Bosch Greenstar 57 models have an AFUE of 96.1%, meaning 96.1% of the energy in the fuel becomes heat for the home and the other 3.9% escapes up the chimney and elsewhere, saving money in fuel costs over the life of the boiler.

**Bosch Thermotechnology Corp.**

Londonderry, NH • Ft. Lauderdale, FL • Irvine, CA  
General Inquiries: 1-866-642-3198  
Technical Support: 1-800-283-3787  
[www.bosch-climate.us](http://www.bosch-climate.us)

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