

**City of Portland, Maine - Building or Use Permit Application**  
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

|                                  |  |                      |
|----------------------------------|--|----------------------|
| Permit No:<br>02-0069            | Issue Date:<br>JAN 31 2002                                 | CBL:<br>426 A004001  |
| Owner Name:<br>Maine Tank Co Inc | Owner Address:<br>P O Box 1119<br>179 Presumpscot Portland | Phone:<br>2077722801 |
| Business Name:<br>n/a            | Contractor Name:<br>Richard P. Waltz                       | Phone:<br>2077722801 |
| Lessee/Buyer's Name:<br>n/a      | Phone:<br>n/a  | Permit Type:<br>HVAC |
|                                  |  | Zone:<br>IM          |

|   |                                      |
|---|--------------------------------------|
| Location of Construction:<br>179 Presumpscot St | Owner Name:<br>Maine Tank Co Inc     |
| Business Name:<br>n/a                           | Contractor Name:<br>Richard P. Waltz |
| Lessee/Buyer's Name:<br>n/a                     | Phone:<br>n/a                        |

|                         |   |
|-------------------------|---|
| Past Use:<br>Commercial | Proposed Use:<br>Commercial / Modine 1000 Gallon Gas Tank |
|-------------------------|---|

|                        |                         |                    |
|------------------------|-------------------------|--------------------|
| Permit Fee:<br>\$30.00 | Cost of Work:<br>\$0.00 | CEO District:<br>2 |
|------------------------|-------------------------|--------------------|

|   |   |
|---|---|
| FIRE DEPT:<br><input checked="" type="checkbox"/> Approved<br><input type="checkbox"/> Denied | INSPECTION:<br>Use Group: U Type:<br>3eca Mech '93<br>State C.I. & SF Rules |
| Signature: <i>[Signature]</i>   | Signature: <i>[Signature]</i>   |

Proposed Project Description:  
Install Heating System

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action:  Approved  Approved w/Conditions  Denied

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Permit Taken By: gg  
Date Applied For: 01/23/2002

**Zoning Approval**

- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

**Special Zone or Reviews**

Shoreland  
 Wetland  
 Flood Zone  
 Subdivision  
 Site Plan

Maj  Minor  MM

Date: \_\_\_\_\_

**Zoning Appeal**

Variance  
 Miscellaneous  
 Conditional Use  
 Interpretation  
 Approved  
 Denied

Date: \_\_\_\_\_

**Historic Preservation**

Not in District or Landmark  
 Does Not Require Review  
 Requires Review  
 Approved  
 Approved w/Conditions  
 Denied

Date: \_\_\_\_\_

**CERTIFICATION**

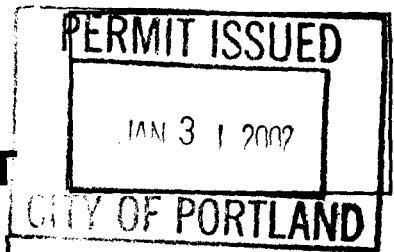
I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition,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



406-A-004

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 179 Presumpscot St Use of Building Commercial Date 1-23-02  
 Name and address of owner of appliance Richard P. Waltz Co 179 Presumpscot St  
 Installer's name and address Richard P. Waltz  
 Telephone 7722801

### Location of appliance:

- Basement
- Attic
- Floor
- Roof
- (5)  ceiling hung

### Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name: Modine

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 # TNT 1297
- Other \_\_\_\_\_

### Type of Chimney:

- Masonry Lined  
Factory built \_\_\_\_\_
- Metal  
Factory Built U.L. Listing # \_\_\_\_\_
- Direct Vent  
Type B Vent UL# \_\_\_\_\_

### Type of Fuel Tank

- Oil
- Gas

Size of Tank 1000

Number of Tanks one

Distance from Tank to Center of Flame 75' feet.

### Approved

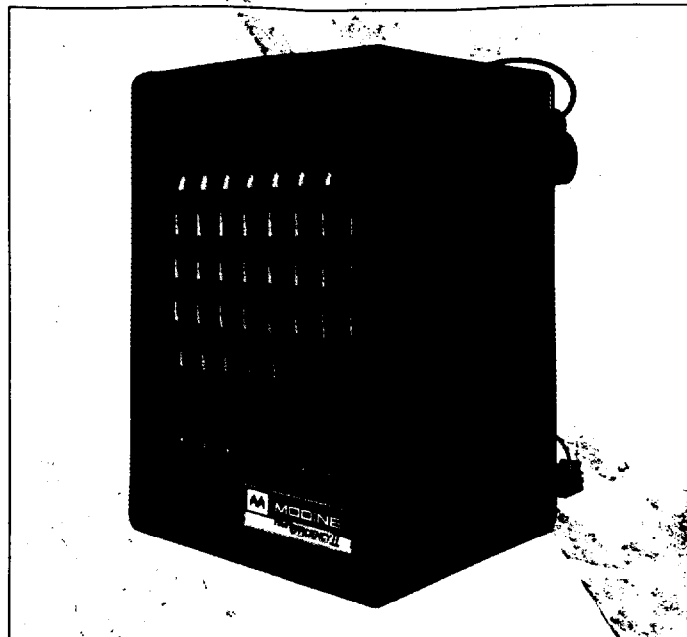
Fire: [Signature]  
 Ele.: \_\_\_\_\_  
 Bldg.: [Signature]

### Approved with Conditions

- See attached letter or requirement

Signature of Installer [Signature]

## INSTALLATION AND SERVICE MANUAL gas-fired unit heaters models PV & BV



All models approved for use in California (with IPI) by the CEC, in New York by the MEA Division and in Massachusetts. AGA certified to ANSI Z83 standards.

### Contents

|   | Pages          |
|---|----------------|
| Inspection on arrival .....                 | 1              |
| Installation (including venting) .....      | 2-8            |
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| Checking input rate .....                   | 11             |
| Dimensional data .....                      | 12 & 15        |
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| Troubleshooting .....                       | 21-24          |
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## **! WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death, and could cause exposure to substances which have been determined by various state agencies to cause cancer, birth defects or other reproductive harm. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

### FOR YOUR SAFETY

The use and storage of gasoline or other flammable vapors and liquids in open containers in the vicinity of this appliance is hazardous.

To prevent premature heat exchanger failure do not locate ANY gas-fired units in areas where chlorinated, halogenated or acid vapors are present in the atmosphere.

### FOR YOUR SAFETY

If you smell gas:

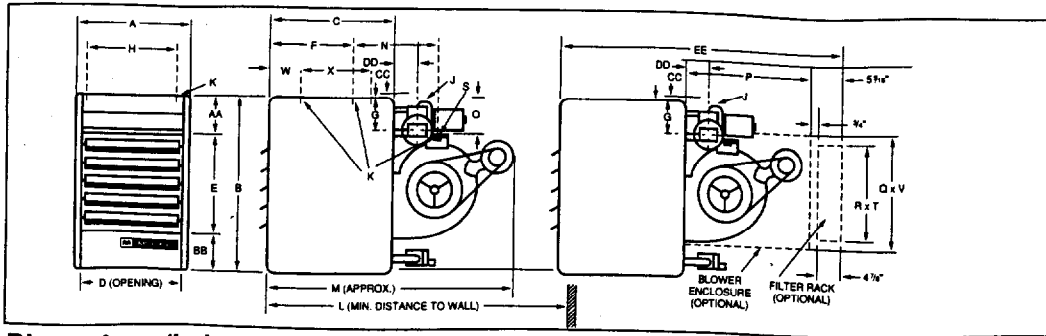
1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

THIS MANUAL IS THE PROPERTY OF THE OWNER. PLEASE BE SURE TO LEAVE IT WITH THE OWNER WHEN YOU LEAVE THE JOB. UNIT HEATER IS CERTIFIED FOR NON-RESIDENTIAL APPLICATIONS.

### Inspection on Arrival

1. Inspect unit upon arrival. In case of damage, report immediately to transportation company and your local Modine sales representative.
2. Check rating plate on unit to verify that power supply meets available electric power at the point of installation.
3. Inspect unit received for conformance with description of product ordered (including specifications where applicable).

# DIMENSIONS/PERFORMANCE - BV



## Dimensions (in inches) - BV

For clearance to combustibles, see installation and service manual 6-575

| Dimension                          | BV50     | BV75     | BV100   | BV125   | BV145   | BV175   | BV200   | BV250   | BV300   | BV350   | BV400  |
|------------------------------------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| A                                  | 17-1/4   | 19-1/4   | 21      | 21      | 23-1/2  | 25-5/8  | 25-5/8  | 28-5/8  | 33-5/8  | 33-5/8  | 40     |
| B                                  | 28-3/4   | 28-3/4   | 35-1/4  | 35-1/4  | 35-1/4  | 40-1/4  | 40-1/4  | 40-1/4  | 40-1/4  | 40-1/4  | 40-1/4 |
| C                                  | 20       | 20       | 22      | 22      | 22      | 25      | 25      | 25      | 25      | 25      | 25     |
| D                                  | 14-13/16 | 16-13/16 | 18-9/16 | 18-9/16 | 21-1/16 | 23-3/16 | 23-3/16 | 26-3/16 | 31-3/16 | 31-3/16 | 37-1/2 |
| E                                  | 16       | 16       | 20      | 20      | 20      | 24      | 24      | 24      | 24      | 24      | 24     |
| F                                  | 12-1/2   | 12-1/2   | 13-1/8  | 13-1/8  | 13-1/8  | 14-3/8  | 14-3/8  | 14-5/8  | -       | -       | -      |
| G                                  | 5-1/2    | 5-5/8    | 6-9/16  | 6-9/16  | 6-9/16  | 7-1/2   | 7-1/2   | 7-1/2   | 7-1/2   | 7-1/2   | 7-1/2  |
| H                                  | 13-5/8   | 15-5/8   | 17-3/8  | 17-3/8  | 19-7/8  | 22      | 22      | 25      | 30      | 30      | 36-3/8 |
| AA                                 | 6 1/4    | 6 1/4    | 8       | 8       | 8       | 9       | 9       | 9       | 9       | 9       | 9      |
| BB                                 | 6-1/2    | 6-1/2    | 7-1/4   | 7-1/4   | 7-1/4   | 7-1/4   | 7-1/4   | 7-1/4   | 7-1/4   | 7-1/4   | 7-1/4  |
| CC                                 | 3/4      | 5/8      | 5/8     | -       | -       | -       | -       | -       | -       | -       | 4-1/4  |
| DD                                 | 2        | 2        | 2-11/16 | 2-11/16 | 2-11/16 | 3-5/16  | 3-5/16  | 3-5/16  | 3-5/16  | 3-5/16  | 3-5/16 |
| J (Round) ①                        | 3        | 3        | 4       | 4       | 4       | 5       | 5       | 6       | 6       | 7       | 7      |
| K (Mounting Holes) ②               | 3/8-16   | 3/8-16   | 3/8-16  | 3/8-16  | 3/8-16  | 3/8-16  | 3/8-16  | 3/8-16  | 3/8-16  | 3/8-16  | 3/8-16 |
| Gas Connections ③                  | 1/2      | 1/2      | 1/2     | 1/2     | 1/2     | 1/2     | 1/2     | 1/2     | 1/2     | 3/4     | 3/4    |
| W                                  | -        | -        | -       | -       | -       | -       | -       | -       | 5       | 5       | 5      |
| X                                  | -        | -        | -       | -       | -       | -       | -       | -       | 16      | 16      | 16     |
| EE                                 | 46-5/8   | 49-5/8   | 56-5/8  | 56-5/8  | 56-5/8  | 63-5/8  | 63-5/8  | 63-5/8  | 63-5/8  | 63-5/8  | 63-5/8 |
| L w/Blower Enclosure & Filt RK     | 52-5/8   | 55-5/8   | 62-5/8  | 62-5/8  | 62-5/8  | 69-5/8  | 69-5/8  | 69-5/8  | 69-5/8  | 69-5/8  | 69-5/8 |
| L w/o Blower Enclosure & Filt RK   | 43-3/4   | 46-3/4   | 52-3/4  | 52-3/4  | 53-3/4  | 58-3/8  | 58-3/8  | 58-3/8  | 58-3/8  | 58-3/8  | 64-1/2 |
| M ④                                | 37-3/4   | 40-3/4   | 46-3/4  | 46-3/4  | 47-3/4  | 52-3/8  | 52-3/8  | 52-3/8  | 52-3/8  | 52-3/8  | 58-1/2 |
| N ⑤                                | 13-1/2   | 16-1/8   | 20-3/8  | 20-3/8  | 20-3/8  | 24-1/2  | 24-1/2  | 24-1/8  | 18      | 18      | 22     |
| O                                  | 5-3/4    | 5-3/4    | 7-1/4   | 7-1/4   | 7-1/4   | 8-1/2   | 8-1/2   | 8-1/2   | 8-1/2   | 8-1/2   | 8-1/2  |
| P                                  | 22       | 25       | 30      | 30      | 30      | 34      | 34      | 34      | 36      | 36      | 36     |
| Q (Height)                         | 17-1/8   | 17-1/8   | 21-3/8  | 21-3/8  | 21-3/8  | 25-1/8  | 25-1/8  | 25-1/8  | 25-1/8  | 25-1/8  | 25-1/8 |
| Inlet Duct/R (Height)              | 15 3/4   | 15 3/4   | 20      | 20      | 20      | 23-3/4  | 23-3/4  | 23-3/4  | 23-3/4  | 23-3/4  | 23-3/4 |
| Filter Rack Width                  | 16       | 19-3/4   | 27-1/2  | 27-1/2  | 27-1/2  | 32-3/4  | 32-3/4  | 32-3/4  | 42-7/8  | 42-7/8  | 42-7/8 |
| Width V                            | 17-3/8   | 21       | 29      | 29      | 29      | 34      | 34      | 34      | 44-1/4  | 44-1/4  | 44-1/4 |
| S (Ctr to Ctr) of Blower Mtg Holes | 10-15/16 | 13-7/16  | 17-3/8  | 17-3/8  | 17-3/8  | 20-3/8  | 20-3/8  | 20-3/8  | 20-3/8  | 20-3/8  | 20-3/8 |
| Motor Pulley Diameter ⑥            | 3        | 3        | 3       | 3       | 3       | 3       | 3       | 3       | 3       | 4-1/2   | 4-1/2  |
| Std Blower Pulley Diameter         | 9        | 10       | 15      | 13      | 9       | 13      | 12      | 8       | 8       | 11      | 11     |
| Blower Wheel Diameter              | 8        | 9        | 13      | 13      | 13      | 15      | 15      | 15      | 15      | 15      | 15     |
| Approx Shipping Weight             | 151#     | 163#     | 220#    | 220#    | 236#    | 314#    | 314#    | 338#    | 427#    | 427#    | 497#   |

- ① For some models, this is the dimension of the vent transition outlet supplied with unit.
- ② BV50 through BV250 has 4 mounting holes (2 on unit & 2 on blower assembly) and the BV300 through BV400 has 6 mounting holes, (4 on unit & 2 on blower assembly).
- ③ For natural gas; may vary depending on control availability.
- ④ This is an approximate dimension for standard motors, allow 3" for sheave

- ⑤ This the distance between the mounting holes in unit and the mounting holes on the blower assembly. On the BV300 through BV400, the dimension is from the rear holes on the unit to the mounting holes on the blower assembly.
- ⑥ Motor pulley is adjustable.
- ⑦ The BV400 power exhauster does not rotate a full 180°.

## Standard Blower Motor Data - BV

Mounting heights and throws for BV models, without ductwork or nozzles, and at airflows yielding a 55° temp. rise are the same as those listed for equivalent size PV units.

|                     | BV50        | BV75        | BV100       | BV125       | BV145       | BV175       | BV200       | BV250       | BV300       | BV350            | BV400      |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|------------|
| HP                  | 1/4         | 1/4         | 1/4         | 1/4         | 1/4         | 1/4         | 1/4         | 1/2         | 3/4         | 1                | 1-1/2      |
| Amps (@ 115 volt) ① | 5.4         | 5.4         | 5.4         | 5.4         | 5.4         | 5.4         | 5.4         | 11          | 11          | 13.4             | 15.0       |
| RPM                 | 1725        | 1725        | 1725        | 1725        | 1725        | 1725        | 1725        | 1725        | 1725        | 1725             | 1725       |
| Type                | Split Phase | Split Phase | Split Phase | Split Phase | Split Phase | Split Phase | Split Phase | Split Phase | Split Phase | Perm. Split Cap. | Cap. Start |

① Data listed is for standard 115-volt, 60-hertz, single-phase motors.

Note: Mounting heights and throws for BV models, without ductwork or nozzles, and at a cfm yielding a 55° temperature rise are the same as those listed for equivalent size PV units.

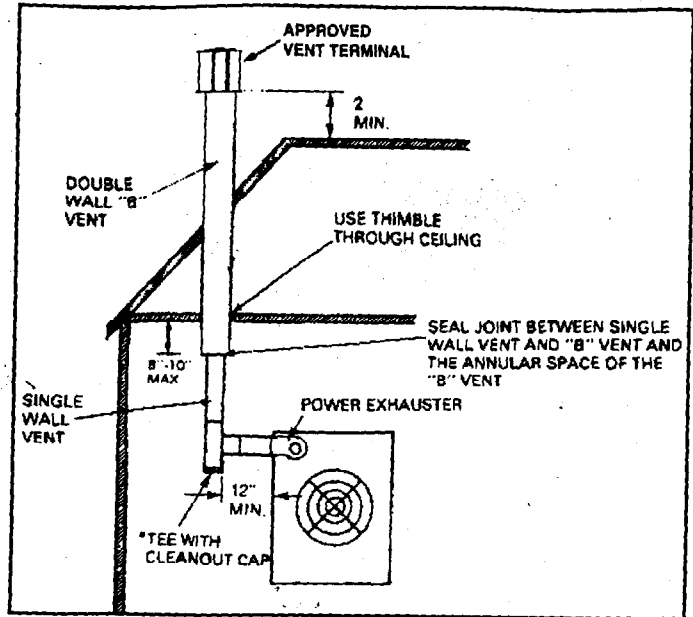
# INSTALLATION

## The Functional Venting Requirements for Units Installed in Canada

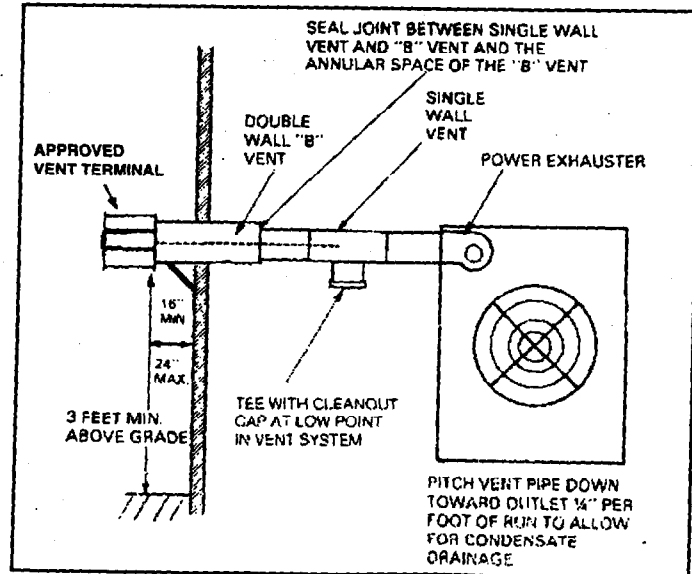
A vent terminal is supplied by Modine with each unit. This terminal is an integral part of the C.G.A. certified unit. Alternate approved vent terminals include Gary Steel 1092 and Breidert Type L style vent terminals.

2. The vent pipe must not pass through an unheated space or interior part of an open chimney unless the vent pipe is insulated.
3. Where the vent pipe may be exposed to extreme cold, or come into contact with snow or ice, the vent construction method shown in Figures 3d & 3e must be used. It is preferred that the double wall vent be one continuous piece but a joint is allowed outside the building.
4. The vent terminal must extend 16 inches beyond the exterior surface of an exterior wall and be supported as shown in figure 3a.
5. The heater system shall be checked at least once a year by a qualified service technician.

**Figure 3d**  
Alternate Canadian Venting  
Arrangement for Vertical Venting



**Figure 3e**  
Alternate Canadian Venting  
Arrangement for Horizontal Venting



January 23, 2002

David Caddell  
389 Congress st  
Portland, ME 04101

Dear David,

Enclosed is the pamphlet you requested from us. I hope that it is what you need.

Sincerely,

Richard P Waltz Plumbing & Heating

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