

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

**PERMIT ISSUED**

|                       |                                   |                     |
|-----------------------|-----------------------------------|---------------------|
| Permit No:<br>03-0988 | Issue Date:<br><b>AUG 18 2003</b> | CBL:<br>297 G009001 |
|-----------------------|-----------------------------------|---------------------|

|  |   |   |                      |
|--|---|---|----------------------|
| Location of Construction:<br>4 King St | Owner Name:<br>Plummer Sheryl C           | Owner Address:<br>10 Derby Rd                         | Phone:               |
| Business Name:                         | Contractor Name:<br>Walkers Refrigeration | Contractor Address:<br>319 Maplecrest Rd Parsonsfield | Phone:<br>2077932779 |
| Lessee/Buyer's Name                    | Phone:                                    | Permit Type:<br>HVAC                                  | Zone:<br><b>R3</b>   |

|                            |  |                        |                             |                    |
|----------------------------|--|------------------------|-----------------------------|--------------------|
| Past Use:<br>Single Family | Proposed Use:<br>Singley Family w/HVAC unit on 1st floor | Permit Fee:<br>\$84.00 | Cost of Work:<br>\$6,200.00 | CEO District:<br>1 |
|----------------------------|--|------------------------|-----------------------------|--------------------|

|   |  |
|---|--|
| Proposed Project Description:<br>add HVAC unit on first floor | FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied<br>INSPECTION: Use Group: <b>R3</b> Type: <b>HVAC</b><br>Signature: <b>AMB 8/18/03</b><br>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)<br>Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied<br>Signature: _____ Date: _____ |
|---|--|

|                         |                                 |                        |
|-------------------------|---------------------------------|------------------------|
| Permit Taken By:<br>jmb | Date Applied For:<br>08/18/2003 | <b>Zoning Approval</b> |
|-------------------------|---------------------------------|------------------------|

|  |  |   |  |
|--|--|---|--|
| 1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.<br>2. Building permits do not include plumbing, septic or electrical work.<br>3. 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<br><input type="checkbox"/> Shoreland<br><input type="checkbox"/> Wetland<br><input type="checkbox"/> Flood Zone<br><input type="checkbox"/> Subdivision<br><input type="checkbox"/> Site Plan<br>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/><br>Date: <b>8/18/03</b> <b>AMB</b> | Zoning Appeal<br><input type="checkbox"/> Variance<br><input type="checkbox"/> Miscellaneous<br><input type="checkbox"/> Conditional Use<br><input type="checkbox"/> Interpretation<br><input type="checkbox"/> Approved<br><input type="checkbox"/> Denied | Historic Preservation<br><input checked="" type="checkbox"/> Not in District or Landmark<br><input type="checkbox"/> Does Not Require Review<br><input type="checkbox"/> Requires Review<br><input type="checkbox"/> Approved<br><input type="checkbox"/> Approved w/Conditions<br><input type="checkbox"/> Denied<br>Date: <b>AMB</b> |
|  | <i>approved</i>  |   |  |

**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

PERMIT ISSUED

AUG 18 2003

CITY OF PORTLAND

297 6009

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 4 King St Use of Building \_\_\_\_\_ Date 8-18-03  
Name and address of owner of appliance MARK PLUMBER 4 KING ST PORTLAND

Installer's name and address WALKERS REFRIGERATION-INC 319 MAPLECREST RD PARSONSFIELD ME 04047 Telephone 793 2779

### Location of appliance:

- Basement
- Floor 1st floor
- Attic
- Roof utility room

### Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name: BRYANT HOT AIR COND FURNACE / AC  
U.L. Approved  Yes  No BRY355

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 # PNT 534
- Other \_\_\_\_\_

### Type of Chimney:

- Masonry Lined  
Factory built \_\_\_\_\_

- Metal  
Factory Built U.L. Listing # \_\_\_\_\_

- Direct Vent  
Type CONCENTRIC UL# \_\_\_\_\_

### Type of Fuel Tank

- Oil
- Gas

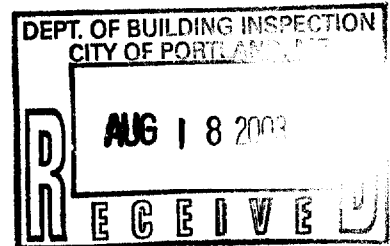
Size of Tank \_\_\_\_\_

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

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

Cost of Work: \$ 6200.00

Permit Fee: \$ 84.00



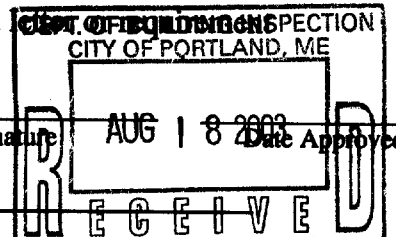
### Approved

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

### Approved with Conditions

See attached DEPT. OF BUILDING INSPECTION CITY OF PORTLAND, ME  
Inspector's Signature \_\_\_\_\_ Date Approved AUG 18 2003

Signature of Installer [Signature]



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

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|                              |  |                            |
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| <b>Permit No:</b><br>03-0988 | <b>Date Applied For:</b><br>08/18/2003 | <b>CBL:</b><br>297 G009001 |
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| <b>Location of Construction:</b><br>4 King St | <b>Owner Name:</b><br>Plummer Sheryl C           | <b>Owner Address:</b><br>10 Derby Rd                         | <b>Phone:</b>                  |
| <b>Business Name:</b>                         | <b>Contractor Name:</b><br>Walkers Refrigeration | <b>Contractor Address:</b><br>319 Maplecrest Rd Parsonsfield | <b>Phone</b><br>(207) 793-2779 |
| <b>Lessee/Buyer's Name</b>                    | <b>Phone:</b>                                    | <b>Permit Type:</b><br>HVAC                                  |                                |

|  |  |
|--|--|
| <b>Proposed Use:</b><br>Single Family w/HVAC unit on 1st floor | <b>Proposed Project Description:</b><br>add HVAC unit on first floor |
|--|--|

**Dept:** Zoning      **Status:** Approved      **Reviewer:** Jeanine Bourke      **Approval Date:** 08/18/2003

**Note:**      **Ok to Issue:**

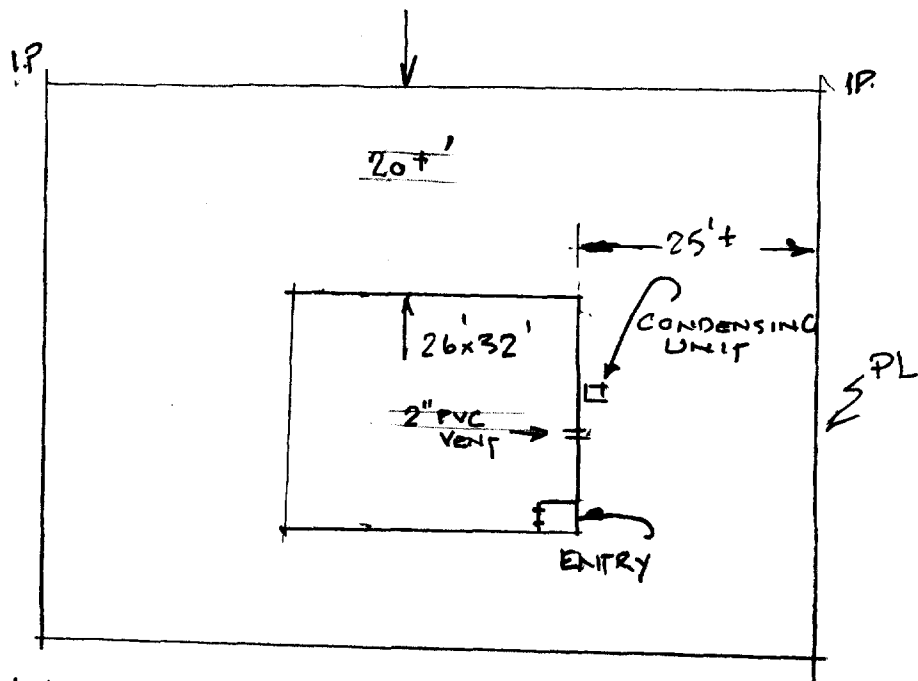
- 1) This property shall remain a single family dwelling. Any change of use shall require a separate permit application for review and approval.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Jeanine Bourke      **Approval Date:** 08/18/2003

**Note:**      **Ok to Issue:**

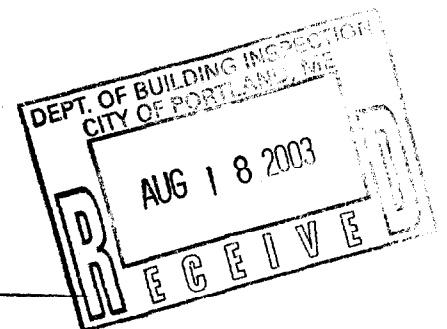
- 1) Contractor will submit specifications on unit for combustion exchange for installation in enclosed room

WOOD FRAMED WALL EXTERIOR ~~FINISH~~ CEDAR  
SIDING WITH PIPE BLOCK TO EXIT  
BUILDING. 2" PVC CONCENTRIC VENT  
EXITING BUILDING.



NOTE: SEE BUILDING  
PERMIT FILE FOR  
EXACT PLOT PLAN

KING ST



**Walker's Refrigeration, Inc.**

319 Maplecrest Rd.

Parsonsfield, Me. 04047

1-800-298-2779 Phone

1-207-793-2015 Fax

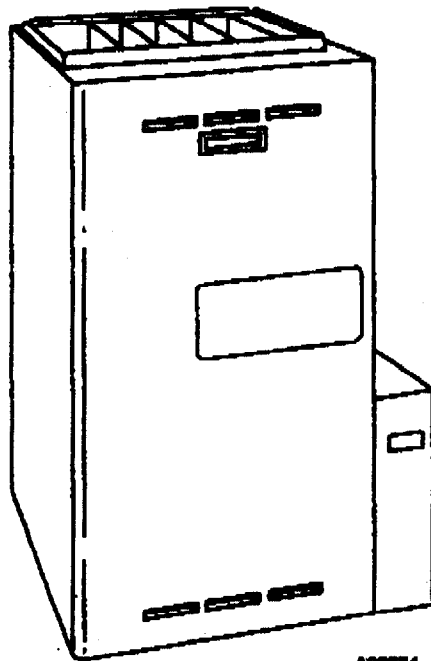
Date: 8-18-03

To: JEANIE FOURKIE

From: RICHARD

Re: THANKS FOR YOUR HELP TODAY.  
ENCLOSED ARE SPEC'S FOR  
TURNAGE, CLEARANCE REQUIREMENT,  
AND N.F.G. CODE FOR INSTALLATION  
OF DIRECT VENT EQUIPMENT IN  
ENCLOSED ROOMS.

Pages to follow: 4



A02334



Building on our industry-leading condensing furnace technology, the model 355MAV is our greatest innovation in comfort control and operating efficiency.

Modern technology provides the Plus 90™ design with great reliability, high efficiency, and ultra-quiet operation. Efficiencies are up to 96.6 percent Annual Fuel Utilization Efficiency (AFUE).

The model 355MAV Plus 90 Condensing Gas Furnace incorporates our patented Perfect Heat™ Control. This control interacts with a 2-stage gas valve, a variable-speed inducer motor, and a variable-speed blower motor, allowing the Plus 90 to adjust combustion air, firing rate, and airflow to maintain peak efficiency throughout the operating cycle.

The Perfect Heat system provides the ultimate in heating comfort while minimizing electrical and gas consumption. The Plus 90 also features Perfect Humidity control when combined with a Bryant Thermostat™ Control and air conditioner or heat pump system.

### FEATURES

**4-Way Multipole Design**—Allows the model 355MAV to be installed in an upflow, downflow, or horizontal orientation. Factory configured for upflow applications with only simple drain connection changes required for conversion to downflow or horizontal. The model 355MAV is available in 8 heat/airflow combinations. When combined with the 4-way design, the 355MAV allows for 24 different applications.

**Media Filter Cabinet**—Enhanced indoor air quality in your home is made easier with our media filter cabinet—a standard accessory on all Deluxe furnaces. When installed as a part of your system, this cabinet allows for easy and convenient addition of a Bryant high-efficiency air filter.

**Variable-Speed Motors**—Variable-speed operation improves the comfort levels in the home. Variable-Speed motors are also more economical to operate than standard motors. They have the ability to adapt to changing conditions and provide consistent, comfortable, and quiet heating. Motors and electronic controls are covered by a 5-year limited warranty.

**2-Stage Gas Valve**—The 355MAV has a 2-stage gas valve to vary the amount of gas being used from low-heat to high-heat stage.

**Perfect Heat/Perfect Humidity Control**—This intelligent heating control constantly monitors operating conditions to adjust for greater efficiency and comfort. The control operates 90% of the time in low-heat and reserves the high-firing rate for times when the heating demand is high. The Perfect Heat/Perfect Humidity control has these additional features:

- dedicated terminals for electrical connection of electronic air cleaner and humidifier
- adjustable blower off time
- LED fault code display to aid in servicing
- selectable airflow to match cooling unit
- emergency heat setting
- setting to increase airflow for bypass-type humidifier
- selectable constant fan airflow
- a multizone setting for use with zoned air distribution systems
- a special dehumidification function increases cooling comfort by providing greater humidity removal in summer months
- controls humidity even when there is no heating or cooling demand

**Sealed Combustion System**—Enclosed burner assembly isolates operating noise without the expense of sound-deadening devices. With the sealed combustion (direct-vent) system, outdoor air is brought directly into the combustion chamber, cutting cold air infiltration into the structure and reducing drafts.

**Three-Pass Primary Heat Exchangers**—This design accelerates heat transfer and extracts heat that conventional heat exchangers waste up the flue. The primary heat exchanger is made of aluminized steel for corrosion resistance.

**Flow-Through Secondary Heat Exchangers**—Each coil is laminated with our patented Everlast™ polypropylene for greater resistance to corrosion and is epoxy coated externally to prevent oxidation. This breakthrough in heating technology (Patent No. 4,738,307) helps extend the life of the furnace for years of reliable performance. The heat exchangers are positioned in the furnace to extract additional heat from the combustion products regardless of furnace orientation.

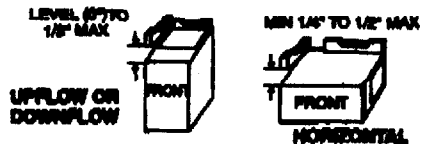
**Warranty**—Limited lifetime warranty on the heat exchangers for the lifetime of the original owner in single family residence; 20 years in other residential and commercial applications. Contact your dealer for details. The rest of the unit is backed by a 5-year limited warranty.

Form No. PDS 355M.40.10

### INSTALLATION

- This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0 - 3,050m), except 140 also furnaces are only approved for altitudes 0 - 7,000 ft (0 - 2,130m).
- An orifice kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.
- This furnace is for indoor installation in a building constructed on site. This furnace may be installed in a manufactured (mobile) home when stated on rating plate and using factory designated kit.
- The furnace may be installed on combustible flooring in slabs or sheet of Minimum Inches Clearance To Combustible Construction as described below.
- The furnace shall be installed on a solid, level surface. Refer to the Installation Instructions for joint kit and method of installation. This furnace is for use with schedule-40 PVC, PVC-UHV, CPVC, or ABS-DWV pipe, and shall not be varied in connection with other gas-fired appliances. Construction through which venting leaks pipes may be installed is maximum 24 inches (610 mm), minimum 5/4 inches (19 mm) thickness (including roofing material).

For upflow and downflow applications, furnace must be installed level, or pitched within 1/8" of level. For a horizontal application, the furnace must be pitched minimum 1/4" to maximum of 1/2" forward for proper drainage. See Installation Manual for IMPORTANT unit support details on horizontal applications.



### MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

#### ALL POSITIONS:

- Minimum front clearance for service 30 inches (762mm).

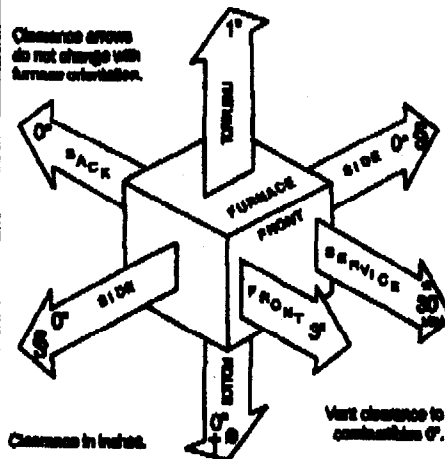
#### DOWNFLOW POSITIONS:

- † For installation on combustible floors only when installed on special base No. RGA88502/ALL, Coil Assembly, Part No. CDS or CFS, or Coil Casting, Part No. KC41C.

#### HORIZONTAL POSITIONS:

- Line contact is permissible only between lines formed by intersections of top and two sides of furnace jacket, and building joists, studs, or framing.
- Clearance shown is for air inlet and air outlet ends.
- 120 also furnace requires 1 inch bottom clearance to combustible materials.

The furnace is approved for UPFLOW, DOWNFLOW and HORIZONTAL installations.



88500-001 REV. A  
LIT - TOP

AG880



MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.



As an ENERGY STAR® Partner, Bryant Heating & Cooling Systems determined that this product meets the ENERGY STAR® guidelines for energy efficiency.



REGISTERED QUALITY SYSTEM  
These products are engineered and manufactured under an ISO 9001 registered quality system.

of the plaster or other noncombustible finish where the clearance specified is 2 in. (50 mm) or less.

(5) Listed air-conditioning equipment shall have the clearance from supply ducts within 3 ft (0.9 m) of the furnace plenum be not less than that specified from the furnace plenum. No clearance is necessary beyond this distance.

**9.2.4 Assembly and Installation.** Air-conditioning equipment shall be installed in accordance with the manufacturer's instructions. Unless the equipment is listed for installation on a combustible surface such as a floor or roof, or unless the surface is protected in an approved manner, it shall be installed on a surface of noncombustible construction with noncombustible material and surface finish and with no combustible material against the underside thereof.

**9.2.5 Furnace Plenums and Air Ducts.** A furnace plenum supplied as a part of the air-conditioning equipment shall be installed in accordance with the manufacturer's instructions. Where a furnace plenum is not supplied with the equipment, any fabrication and installation instructions provided by the manufacturer shall be followed. The method of connecting supply and return ducts shall facilitate proper circulation of air. Where the air conditioner is installed within a room not large in comparison with the size of the equipment, the air circulated by the equipment shall be handled by ducts that are sealed to the casing of the equipment and that separate the circulating air from the combustion and ventilation air.

**9.2.6 Refrigeration Coils.** (See 9.2.7 and 9.2.8.)

**9.2.7 Switches in Electrical Supply Line.** Means for interrupting the electrical supply to the air-conditioning equipment and to its associated cooling tower (if supplied and installed in a location remote from the air conditioner) shall be provided within sight of and not over 50 ft (15 m) from the air conditioner and cooling tower.

**9.3 Central Heating Boilers and Furnaces.**

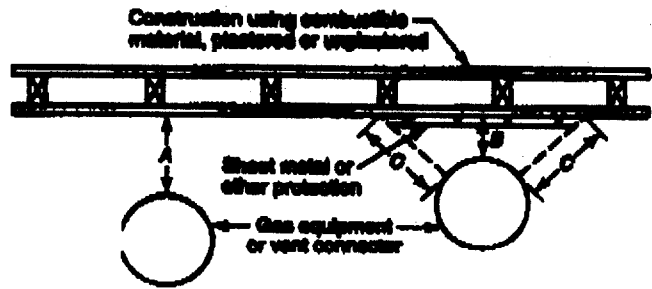
**9.3.1 Location.** Central heating furnace and low-pressure boiler installations in bedrooms or bathrooms shall comply with one of the following:

- (1) Central heating furnaces and low-pressure boilers shall be installed in a closet located in the bedroom or bathroom, the closet shall have a weather-stripped solid door with a self-closing device, and all combustion air shall be obtained from the outdoors.
- (2) Central heating furnaces and low-pressure boilers shall be of the direct vent type.

**9.3.2 Clearances.**

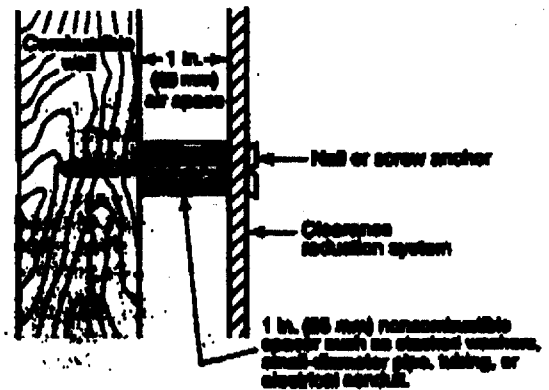
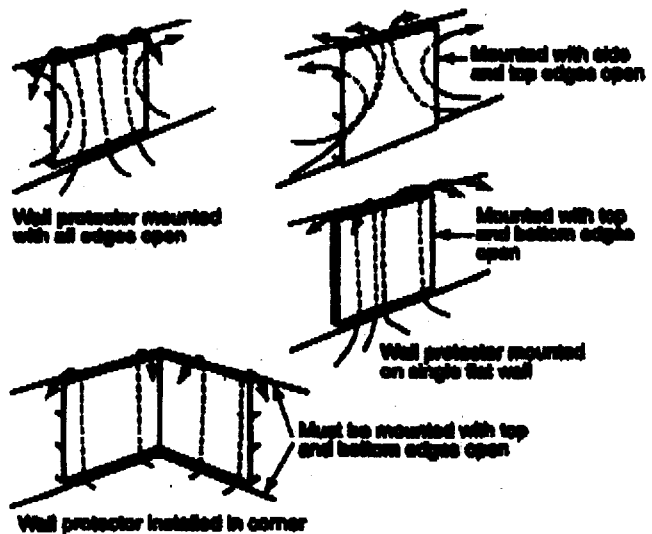
**9.3.2.1** Listed central heating furnaces and low-pressure boilers installed in rooms that are large in comparison with the size of the equipment shall be installed with clearances per the terms of their listing and the manufacturer's instructions. (See Section 9.3 for definition.)

**9.3.2.2** Central heating furnaces and low-pressure boilers installed in rooms that are NOT large (such as alcoves and closets) in comparison with the size of the equipment shall be listed for such installations. Listed clearances shall not be reduced by the protection methods described in Table 9.2.3(b) and illustrated in Figure 9.3.2.2(a) through Figure 9.3.2.2(c), regardless of whether the enclosure is of combustible or non-combustible material.



**Notes:**  
 A equals the clearance with no protection specified in Tables 9.2.3(a) and 10.4.1 and in the columns applying to various types of equipment.  
 B equals the reduced clearance permitted in accordance with Table 9.2.3(b). The protection applied to the construction using combustible material shall extend far enough in each direction to make C equal to A.

**FIGURE 9.3.2.2(a) Extent of Protection Necessary to Reduce Clearances from Gas Equipment or Vent Connectors.**



Masonry units can be attached to combustible walls using wall ties. Spacers should not be used directly behind appliance or connector.

**FIGURE 9.3.2.2(b) Wall Protector Clearance Reduction System.**

2002 Edition



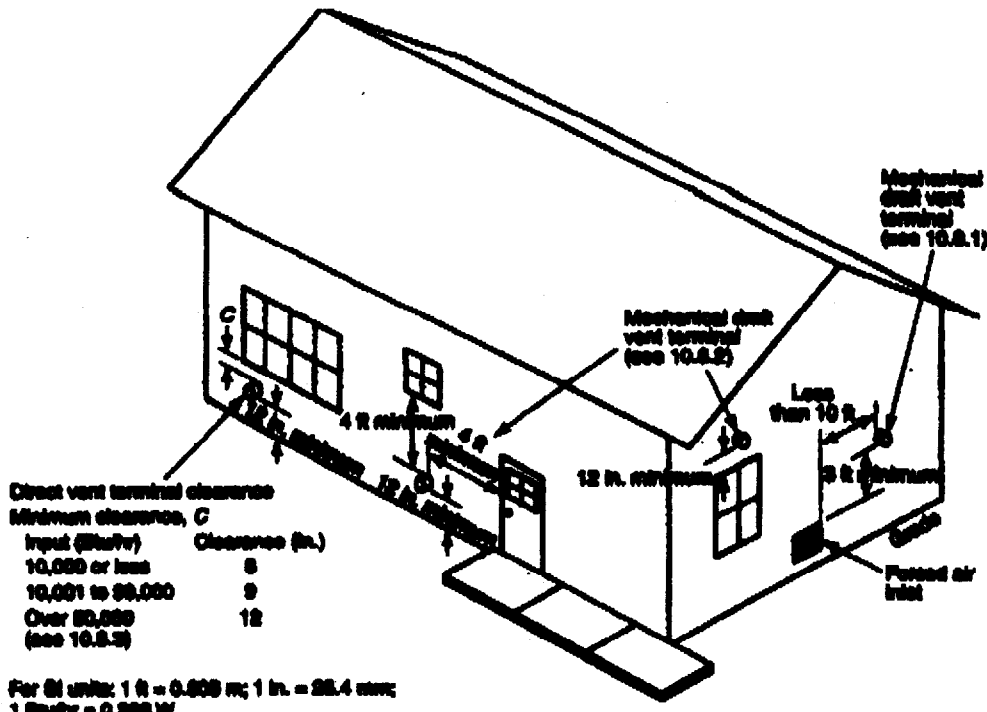


FIGURE A.10.8 Exit Terminals of Mechanical Draft and Directvent Venting Systems.

A.10.8.1.3 For information on the installation of gas vents in existing masonry chimneys, see Section 10.6.

A.10.8.1.3 Reference can also be made to the chapter on chimney, gas vent, and fireplace systems of the ASHRAE Handbook — HVAC Systems and Equipment.

A.10.8.3.1 Additional information on sizing venting systems can be found in the following:

- (1) Tables in Chapter 19
- (2) The gas equipment manufacturer's instructions
- (3) The venting equipment manufacturer's sizing instructions
- (4) Drawings, calculations, and specifications provided by the venting equipment manufacturer
- (5) Drawings, calculations, and specifications provided by a competent person
- (6) The chapter on chimney, gas vent, and fireplace systems of the ASHRAE Handbook — HVAC Systems and Equipment.

Category I appliances may be either draft hood-equipped or fan-assisted combustion system in design. Different vent design methods are required for draft hood-equipped and fan-assisted combustion system appliances.

A.10.7.2(1) Reference can also be made to the chapter on chimney, gas vent, and fireplace systems of the ASHRAE Handbook — HVAC Systems and Equipment.

A.10.8 See Figure A.10.8.

A.10.10.3 Reference can also be made to the chapter on chimney, gas vent, and fireplace systems of the ASHRAE Handbook — HVAC Systems and Equipment.

A.10.10.2 See A.10.8.3.1.

A.10.12.4 A device that will automatically shut off gas to the burner in the event of sustained backdraft is recommended if such backdraft might adversely affect burner operation or if flue gas spillage might introduce a hazard. Figure A.10.12.4 shows examples of correct and incorrect locations for barometric draft regulators.

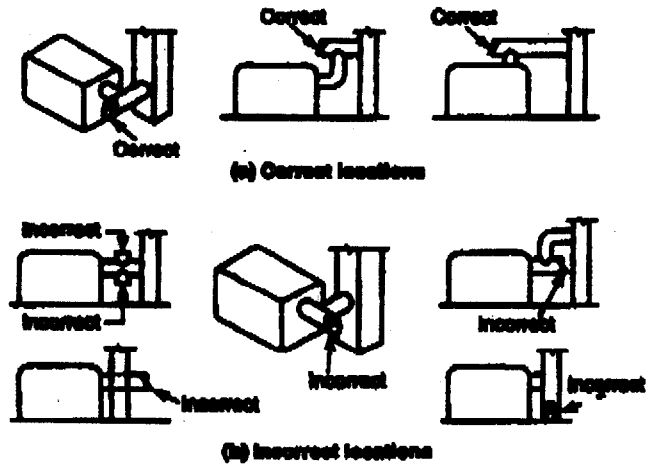


FIGURE A.10.12.4 Locations for Barometric Draft Regulators.