

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 09-1215	Issue Date:	CBL: 090 C004001
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Location of Construction: 13 SUNSET RD <i>P.I.</i>	Owner Name: DAHL CLAIRE & ROBERT M JTS	Owner Address: 13 SUNSET RD	Phone:
Business Name:	Contractor Name: property owner	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: <i>IR-2</i>

Past Use: Single Family Home	Proposed Use: Single Family Home - install a Burnham Hydronics Boiler	Permit Fee: \$40.00	Cost of Work: \$1,975.00	CEO District: 1
Proposed Project Description: install a Burnham Hydronics Boiler		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>R3</i> Type: <i>SB</i> <i>IRC 2003</i>	

Signature:	Signature: <i>DM 11/3/09</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
Signature:	Date:

Permit Taken By: Ldobson	Date Applied For: 10/28/2009	Zoning Approval
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<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 information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland <i>w/over 75' (2nd lot in)</i></p> <p><input type="checkbox"/> Wetland</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/></p> <p>Date: <i>OK</i></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 District 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: <i>S</i></p>
	<p>PERMIT ISSUED</p> <p>NOV - 4 2009</p> <p>City of Portland</p> <p>CERTIFICATION</p>	<p>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.</p>	

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

BUILDING PERMIT INSPECTION PROCEDURES

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

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.


A Pre-construction Meeting will take place upon receipt of your building permit.

 X **Final inspection required at completion of work.**

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

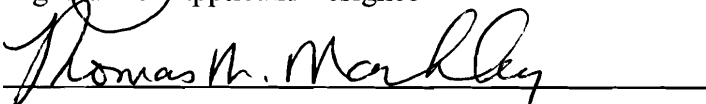
If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.



Signature of Applicant/Designee

 11/4/09
Date



Signature of Inspections Official

 11/3/09
Date

PERMIT ISSUED

NOV - 4 2009

City of Portland



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

PERMIT ISSUED

NOV - 4 2009

Call # 766-2630

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 _____ Use of Building Residence Date _____
 Name and address of owner of appliance Robert Dahl
13 Sunset Hill Rd
 Installer's name and address Robert Dahl, Home owner
 Telephone 766-2630

Location of appliance:
 Basement Floor
 Attic Roof

Type of Fuel:
 Gas Oil Solid

Appliance Name: _____
 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 # _____
 Other HOME OWNER
ELECTRICAL WILLIAM FLYNN

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

Type of Fuel Tank
 Oil
 Gas

Size of Tank 275 GAL
 Number of Tanks 1
 Distance from Tank to Center of Flame 25 feet.
 Cost of Work: \$ 1975.00
 Permit Fee: \$ _____

RECEIVED

OCT 28 2009

Dept. of Building Inspections
City of Portland Maine

Approved

Approved with Conditions

Fire: _____
 Ele.: _____
 Bldg.: _____

See attached letter or requirement

Signature of Installer

Inspector's Signature

Date Approved

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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 10/30/2009
Note:			Ok to Issue: <input checked="" type="checkbox"/>
Dept: Building	Status: Approved with Conditions	Reviewer: Tom Markley	Approval Date: 11/03/2009
Note:			Ok to Issue: <input checked="" type="checkbox"/>

1) Maintain proper setback(s) from property lines/buildings and proper clearances from verticle openings when direct venting.
2) The appliance and venting shall be installed in accordance with the UL listing, IMC 2003 and NFPA 211.



Original Receipt

Received from Robert Dahl 10/27/09

Location of Work 13 Sunset

Cost of Construction \$ _____ Building Fee: _____

Permit Fee \$ _____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: 40

Building (IL) _____ Plumbing (15) _____ Electrical (12) _____ Site Plan (U2) _____

Other _____

CBL: 20-1

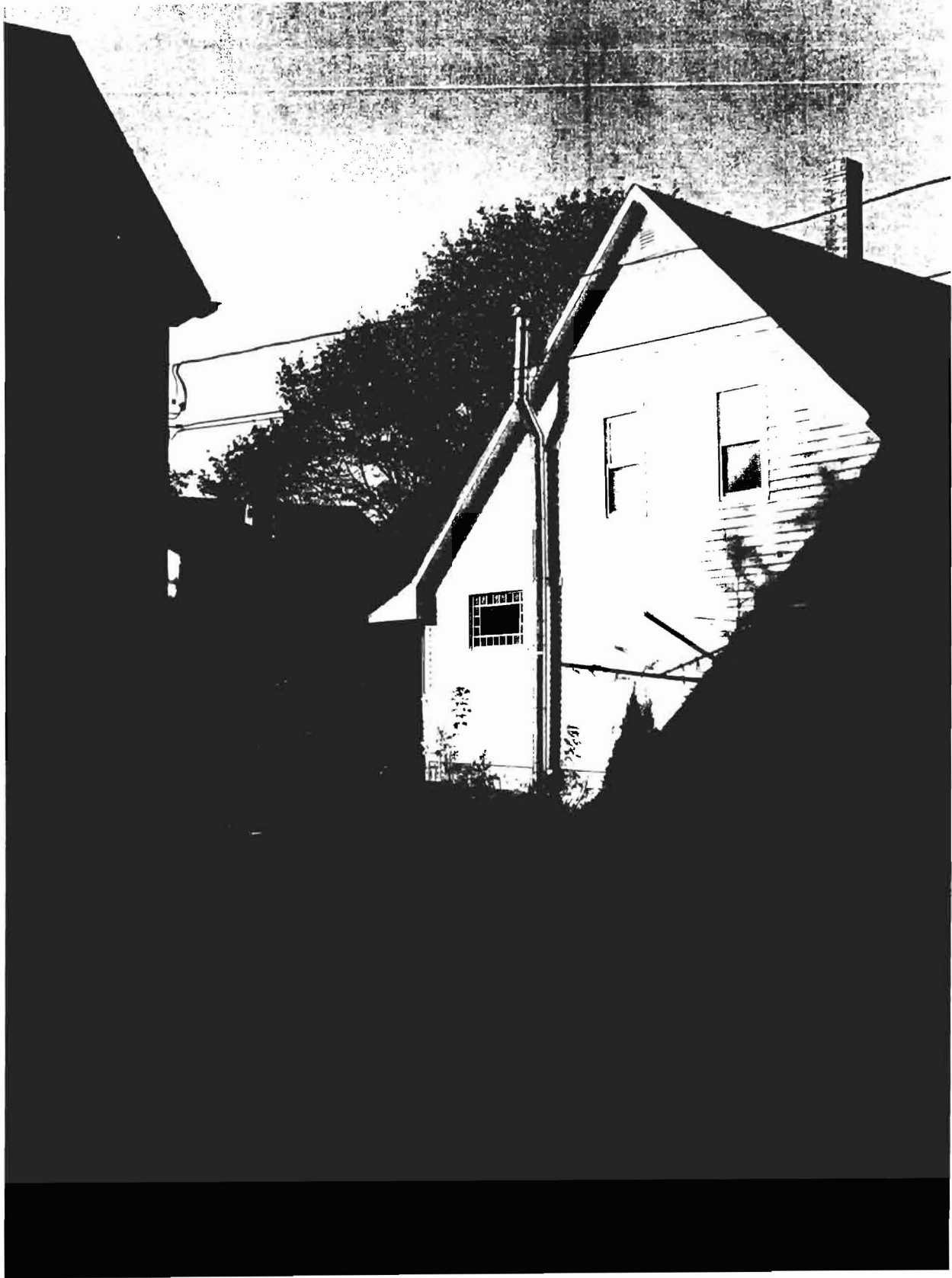
Check #: 20 Total Collected \$ 40

**No work is to be started until permit issued.
Please keep original receipt for your records.**

Taken by: [Signature]

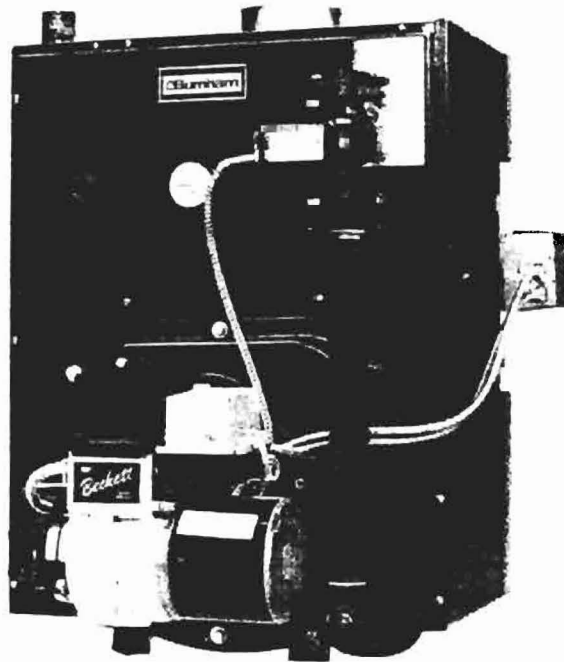
WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

UNPermitted chimney owner construction
Sunset
fealts.
su 4



INSTALLATION, OPERATING AND SERVICE INSTRUCTIONS FOR

C3 & C4 SERIES PACKAGED OIL - FIRED BOILER



For service or repairs to boiler, call your heating contractor. When seeking information on boiler, provide Boiler Model Number and Serial Number as shown on Rating Label.

Boiler Model Number PC_W_ - _____	Boiler Serial Number 6 _____	Installation Date
Heating Contractor		Phone Number
Address		



8142768R6-3/07

Price - \$3.00

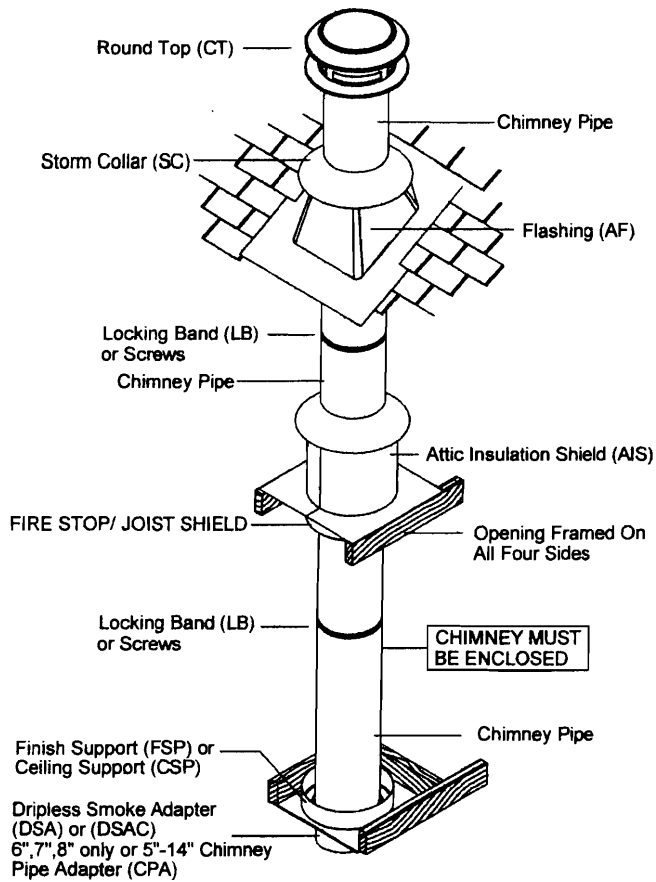


FIG. 1 VERTICAL CHIMNEY THROUGH ONE STORY AND ATTIC

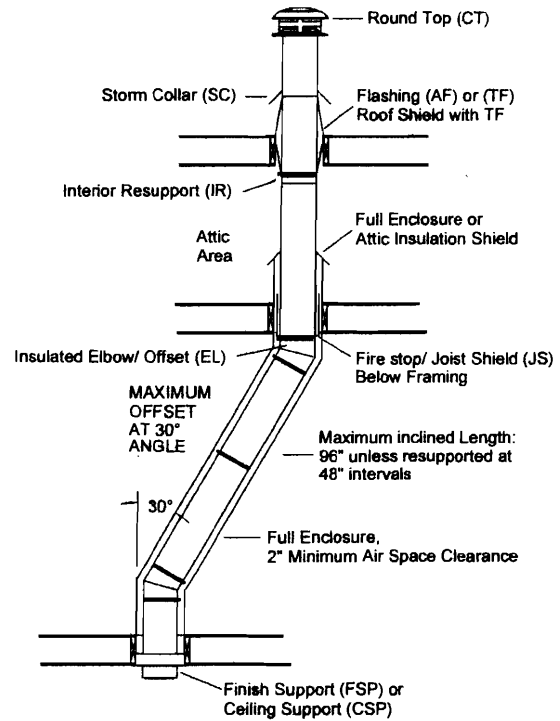


FIG. 3 THIRTY DEGREE OFFSET WITH ENCLOSURE AT 2" CLEARANCE (ONLY ONE SUCH OFFSET IS ALLOWED.)

WHEN INSTALLING YOUR CHIMNEY AND WOODBURNING STOVE OR FIREPLACE SYSTEM, REMEMBER . . . SAFETY FIRST

You may well have a basic knowledge of carpentry and the use of hand tools. However it is important that you also review the rules of safety on the following pages. If you have any doubt about your ability to complete your installation in a workmanlike manner, you should arrange for a professional installation.

RULES FOR SAFETY DURING INSTALLATION

1. Read all installation sheets. Look for them in the cartons, ask your dealer for a complete set. or download from www.Selkirkinc.com. Keep the instructions handy and save them for future reference.
2. Check your local building or fire code for all requirements affecting the fuel-burning appliance and its chimney.
3. Obtain a building permit for both the appliance and the chimney. Contact local building or fire officials about restrictions and installation inspection in your area.
4. Be very careful around electrical wiring and be sure it is secured at least 2 inches away from any part of the chimney. If wiring must be relocated, hire a professional electrician.
5. Be sure that ladders are in good condition and always rest on a level firm surface.
6. Wear cut resistant gloves when handling sheet metal parts with sharp edges.
7. Be sure that electrically powered tools are properly grounded.

CHIMNEY HEIGHT AND SIZE

These instructions contain a "Selector Chart" so you can pick the exact combination of length increments. A chimney for one or more gas appliances must conform to size and height recommendations in the "Metalbestos Gas Vent and Chimney Sizing Handbook." Heights above the roof as given in the next paragraph are minimum; greater heights may be needed for reasons given.

Before beginning installation of the chimney, be sure that the selected size is adequate for the appliance and the selected height of the Chimney Round Top termination is high enough to conform to building code requirements. Chimneys are required to extend at least 3 feet above the highest point where they pass through the roof of a building, and at least two feet higher than any portion of a building within 10 feet. (National Fire Protection Association Standards Nos. 31, 54, and 211.) See Fig. 4.

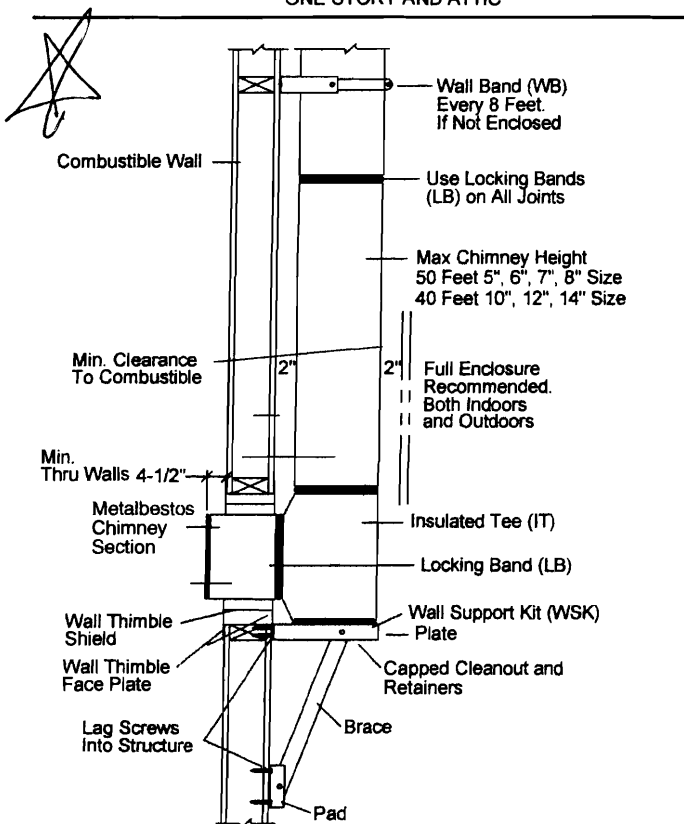


FIG. 2 INSULATED TEE THROUGH COMBUSTIBLE WALL

- A. INSPECT SHIPMENT** carefully for any signs of damage.
1. ALL EQUIPMENT is carefully manufactured, inspected and packed. Our responsibility ceases upon delivery of crated boiler to the carrier in good condition.
 2. ANY CLAIMS for damage or shortage in shipment must be filed immediately against the carrier by the consignee. No claims for variances from, or shortage in orders, will be allowed by the manufacturer unless presented within sixty (60) days after receipt of goods.
- B. LOCATE BOILER** in front of final position before removing crate. See Figures 1A and 1B.
1. LOCATE so that smoke pipe connection to chimney will be short and direct. **BOILER IS SUITABLE FOR INSTALLATION ON COMBUSTIBLE FLOOR.** Boiler cannot be installed on carpeting.
2. FOR BASEMENT INSTALLATION, provide a solid base, such as concrete, if floor is not level, or if water may be encountered on floor around boiler.
 3. PROVIDE SERVICE CLEARANCE of at least 24" on right side of boiler for removal of rear tankless heater. Provide at least 24" clearance from front jacket panel for servicing. Provide at least 24" clearance from right side of boiler **or** top of boiler for cleaning flueways. Boiler flueways may be cleaned either from the top **or** from the side.
 4. For minimum clearances to combustibles materials. See Table 2.
- C. PROVIDE AIR SUPPLY AND VENTILATION** to accommodate proper combustion. If natural ventilation is inadequate, provide a screened opening or duct from the boiler room to the outside. The opening or duct must be sized so the boiler input will not exceed 4,000 BTUH/Sq. In. of free area. If other air consuming appliances are near the boiler, the air inlet should be larger. Consult respective manufacturers.

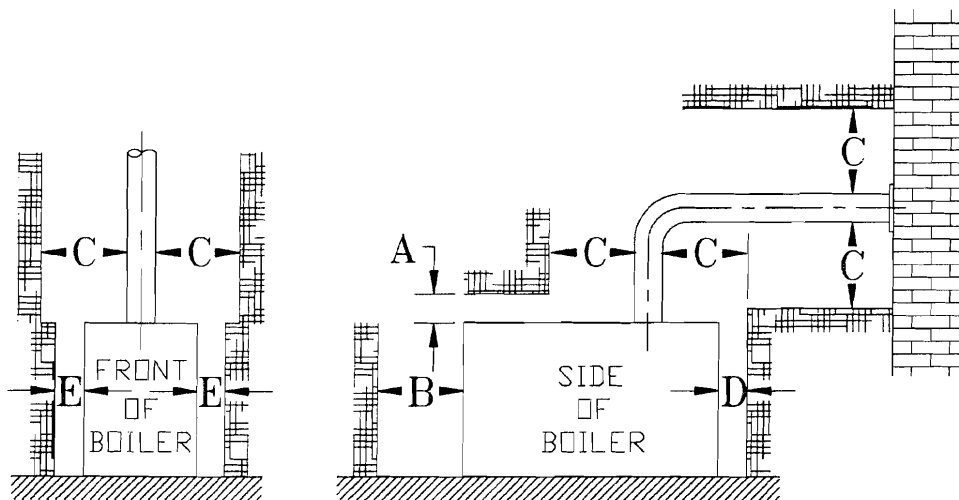


TABLE 2: MINIMUM INSTALLATION CLEARANCES TO COMBUSTIBLE MATERIALS (INCHES)

A	B	C	D	E
Above	Front	Chimney Connector	Rear	Sides
6	24	18	6	6

NOTE 1: Listed clearances comply with American National Standard ANSI/NFPA 31, Installation of Oil Burning Equipment.

NOTE 2: C3 & C4 Series boilers can be installed in rooms with clearances from combustibles material as listed above. Listed clearances cannot be reduced for alcove or closet installations.

NOTE 3: For reduced clearances to combustibles material, protection must be provided as described in the above ANSI/NFPA 31 standard.

WARNING

Install automatic mixing valve at tankless heater outlet to avoid risk of burns or scalding due to excessively hot water at fixtures. Adjust and maintain the mixing valve in accordance with the manufacturer's instructions. Do not operate tankless heater without mixing valve.

3. **FLUSHING OF HEATER** — All water contains some sediment which settles on the inside of the coil. Consequently, the heater should be periodically backwashed. This is accomplished by installing hose bibs as illustrated and allowing water at city pressure to run into hose bib A, through the heater, and out hose bib B until the discharge is clear. The tees in which the hose bibs are located should be the same size as heater connections to minimize pressure drop.
4. **HARD WATER** — A water analysis is necessary to determine the hardness of your potable water. This is applicable to some city water and particularly to well water. An appropriate water softener should be installed based on the analysis and dealer's recommendation. This is not only beneficial to the tankless heater but to piping and fixtures plus the many other benefits derived from soft water.
5. If it is required to perform a long term pressure test of the hydronic system, the boiler should first be isolated to avoid a pressure loss due to the escape of air trapped in the boiler.

To perform a long term pressure test including the boiler, ALL trapped air must first be removed from the boiler.

A loss of pressure during such a test, with no visible water leakage, is an indication that the boiler contained trapped air.

- G. INSTALL SMOKEPIPE** — The C3 & C4 Series boiler should be vented into a fireclay tile-lined masonry chimney or chimney constructed from type L vent or a factory built chimney that complies with the type HT requirements of UL103. The chimney and vent pipe shall have a sufficient draft at all times, to assure safe proper operation of the boiler. See Figure 7 for recommended installation.

1. Install a draft regulator (supplied with boiler) following the instructions furnished with the regulator. See Figure 8 for alternate draft regulator locations.
2. Consider the chimney overall. Chimneys that have a high heat loss may become less suitable as the heat loss of the home goes down and the efficiency of the boiler installed goes up. Most homes have a chimney appropriate for the fuel and the era in which the home was built. That may have been a

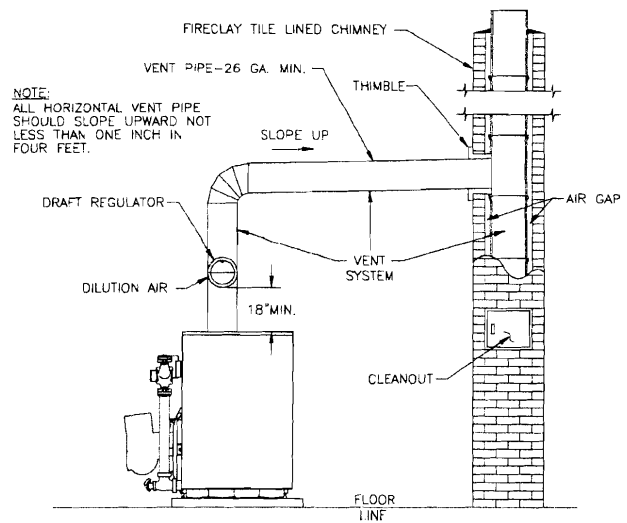


Figure 7: Recommended Smokepipe Arrangement and Chimney Requirements

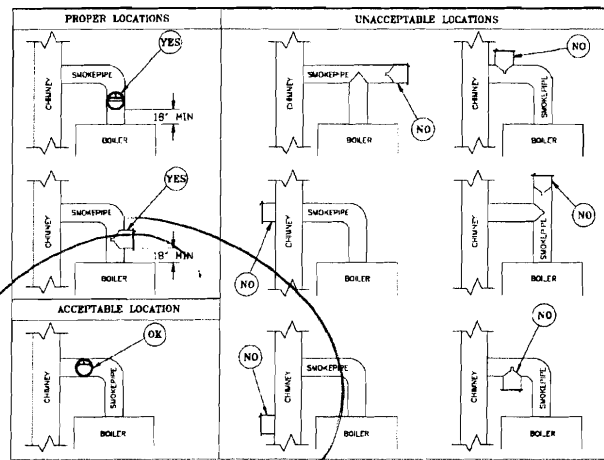


Figure 8: Proper and Improper Locations of Draft Regulator

coal fired or an inefficient oil fired boiler built into a home without insulation or storm windows. With increasing fuel prices that home probably has been insulated and fitted with storm windows so that the heat loss of the home has been reduced. This requires less fuel to be burned and sends less heat up the chimney.

A new boiler probably has a higher efficiency than the boiler being replaced. That probably means that the stack temperature from the new boiler will be lower than that from the old boiler and with less room air being drawn up the chimney to dilute the stack gases. The combination of a large uninsulated chimney, reduced firing rate, reduced firing time, lower stack temperature and less dilution air can, in some cases, contribute to the condensing of small amounts of water vapor in the chimney. Such condensation, when it occurs, can cause chimney deterioration. In extreme cases, condensed water