

Permit No: Issue Date: JUN 04 2004 CBL: 436 A015001

| | | | |
|--|------------------------------------|-------------------------------|-----------------------------------|
| Location of Construction: 46 Yale St | Owner Name: Mks Development Inc | Owner Address: 7 Terra Way | Phone: CITY OF PORTLAND |
| Business Name: | Contractor Name: Jackson, Jim | Contractor Address: | Phone: |
| Lessee/Buyer's Name | Phone: | Permit Type: HVAC | Zone: |

| | | | | |
|---------------------------------|---|--|---|--------------------|
| Past Use: Single Family Home | Proposed Use: Single Family Home/ Install a weil McLain natural gas boiler | Permit Fee: \$57.00 | Cost of Work: \$3,500.00 | CEO District: 4 |
| | | FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied <i>N/A</i> | INSPECTION: Use Group: <i>V</i> Type: <i>Heating</i> <i>State Gas Reg's</i> | |

Proposed Project Description:
Install a weil McLain natural gas boiler

Signature: *[Handwritten Signature]*

| | | | |
|-----------------------------|---------------------------------|------------------------|--|
| Permit Taken By: Idobson | Date Applied For: 06/03/2004 | 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 Minqr MM

Date: *6/4/04*

Zoning Appeal

Variance

Miscellaneous

Conditional Use

Interpretation

Approved

Denied

Date: _____

Historic Preservation

Not in District or Landmark

Does Not Require Review

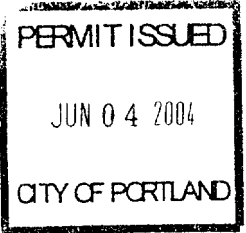
Requires Review

Approved

Approved w/Conditions

Denied

Date: *6/4/04*



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 |

City of Portland, Maine - Building or Use Permit

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

| | | |
|------------------------------|--|----------------------------|
| Permit No: 04-0727 | Date Applied For: 06/03/2004 | CBL: 436 A015001 |
|------------------------------|--|----------------------------|

| | | | |
|--|---|--|--------------------------------|
| Location of Construction: 46 Yale St | Owner Name: Mks Development Inc | Owner Address: 7 Terra Way | Phone: |
| Business Name: | Contractor Name: Jackson, Jim | Contractor Address: 30 Bolton St. Portland | Phone (207) 831-1810 |
| Lessee/Buyer's Name | Phone: | Permit Type: HVAC | |

| | |
|--|--|
| Proposed Use: Single Family Home/ Install a weil McLain natural gas boiler | Proposed Project Description: Install a weil McLain natural gas boiler |
|--|--|

Dept: Zoning **Status:** Approved **Reviewer:** Tammy Munson **Approval Date:** 06/04/2004
Note: **Ok to Issue:**

Dept: Building **Status:** Approved with Conditions **Reviewer:** Tammy Munson **Approval Date:** 06/04/2004
Note: **Ok to Issue:**

1) The installation must comply with the State of Maine Gas Regulations.

DEPT. OF BUILDING INSPECTION
CITY OF PORTLAND, ME PAGE 06
RECEIVED
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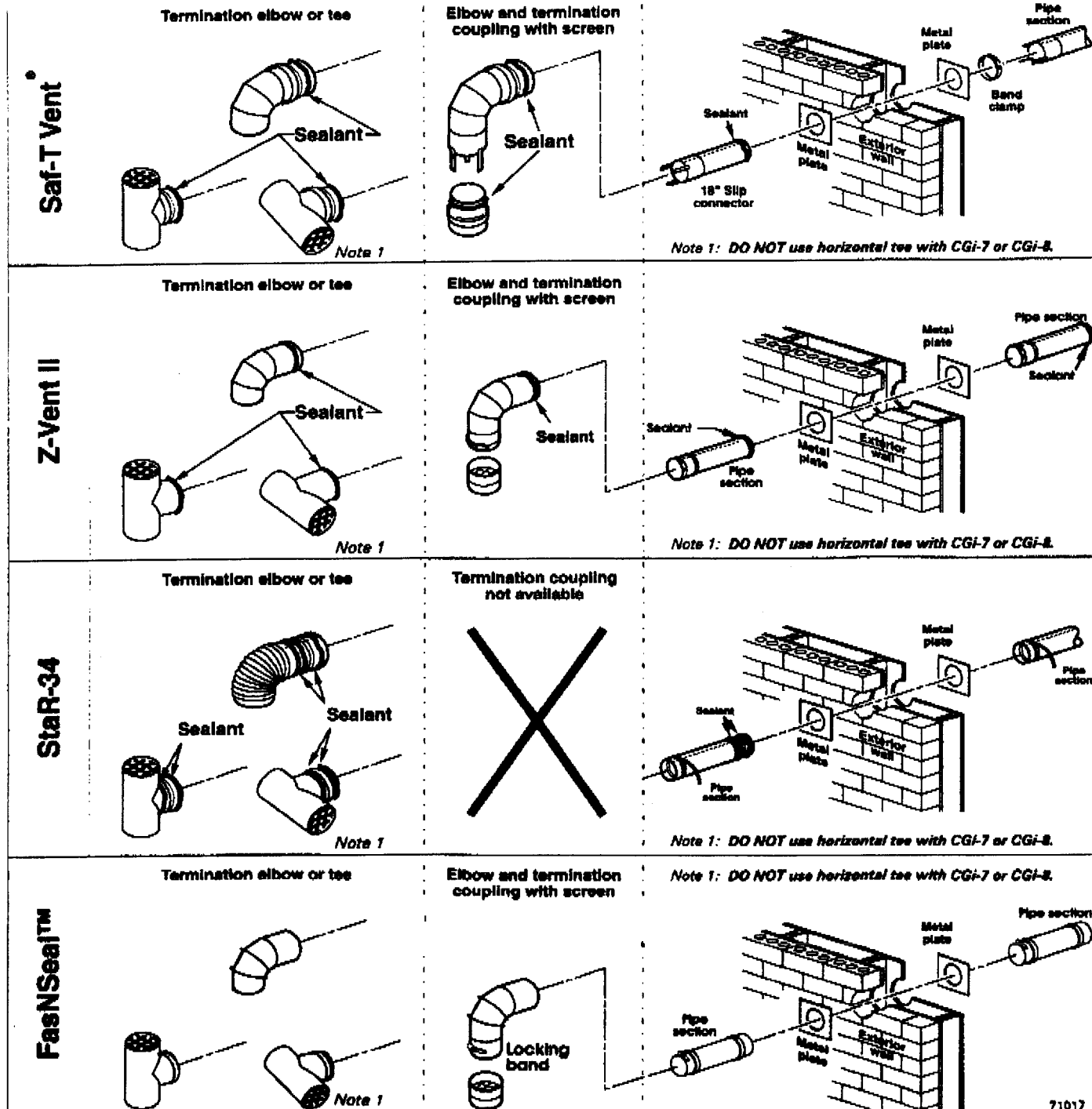
Boiler Manual

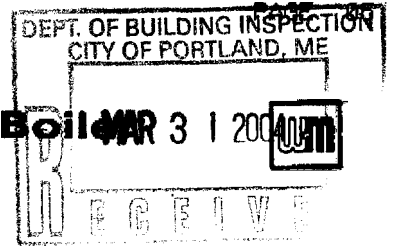
vertical or sidewall

WARNING

Using any termination other than one of those shown could cause nuisance outages and loss of heat, resulting in substantial property damage.

Figure 15 Sidewall termination





GOLD CGi Series 2 Gas-Fired Water Boiler

3f Venting — direct exhaust

1. Do not mix types or manufacturers of vent materials.
2. Clean all joints before sealing. See vent manufacturer's instructions for cleaning and sealing joints. Use their specified sealant. Do not use screws.
3. Install vent pipe with seams on top of vent horizontal runs. Follow requirements in section 3e, page 17, for vent termination.
4. Maintain minimum 2" clearance from combustible materials to vent pipe.
5. Vertical venting — See Figure 13. Follow vent manufacturer's instructions for venting through roof.
 - Vent pipe must extend through roof flashing, jacket or thimble.
 - Vent may pass through floor, inside wall or concealed space when installed according to vent manufacturer's instructions.

Sidewall venting — See Figures 14 and 15. Vent must terminate at least one foot above anticipated snowline. Vent must be terminated only with;

 - Tee or elbow with integral screen. (Tee may be mounted either vertically or horizontally. DO NOT use horizontal tee with CGi-7 or CGi-8.)
 - Elbow and termination coupling with Screen (not available for StaR-34).
6. Do not seal vent pipe (slip connector for Saf-TVent) to inside or outside plate.
7. If passing through noncombustible wall, provide hole diameter large enough to insert the vent pipe (slip connector for Saf-TVent).
8. Install horizontal drain tee as close as possible to boiler, in first horizontal run. See Figure 13.
9. Do not exceed the maximum vent system length given in Table 4, page 15.

WARNING Condensate drain line — use only silicon tubing rated for at least 400 °F for the first 18" of condensate drain line, then other non-metallic tubing may be used. Using any other material could cause flue gas leakage, potentially resulting in severe personal injury, death or substantial property damage.

CAUTION On some installations, the condensate drain fitting may be omitted, provided:

- Vent manufacturer shows this in their instructions
- Vent is located toward termination as shown in Figure 14.
- The fitting is per Weil-McWorter and vent manufacturer's instructions.

Ice dripping from such vents may accumulate on the ground below. Consider traffic in the area to avoid hazard due to ice accumulation.

Figure 13 Direct exhaust vertical venting

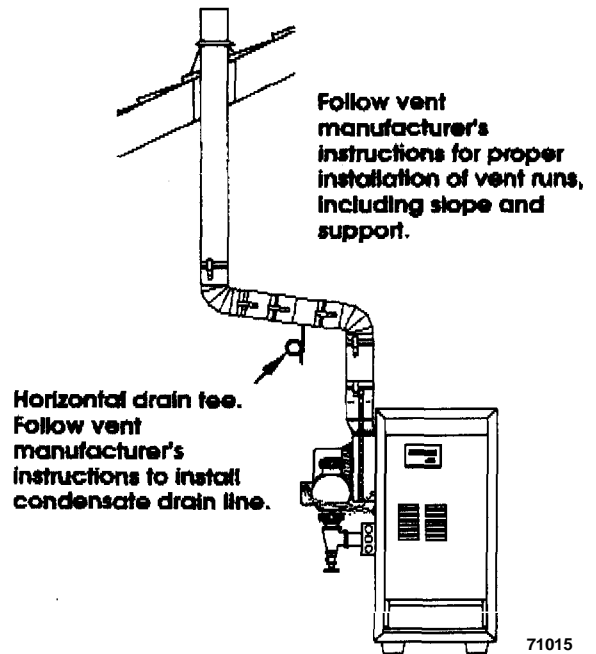
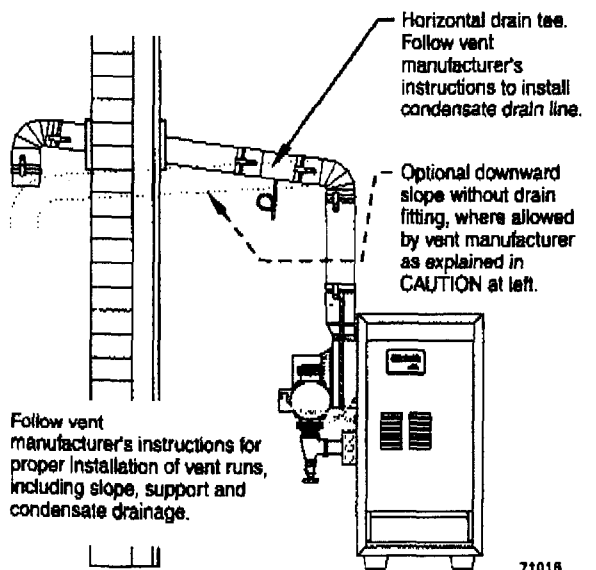
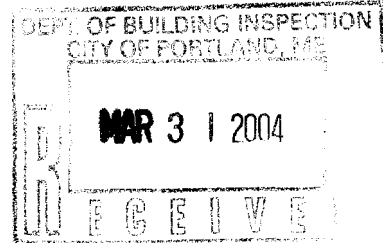


Figure 14 Direct exhaust sidewall venting



Boiler Manual



3e Venting — direct exhaust — vent termination

WARNING

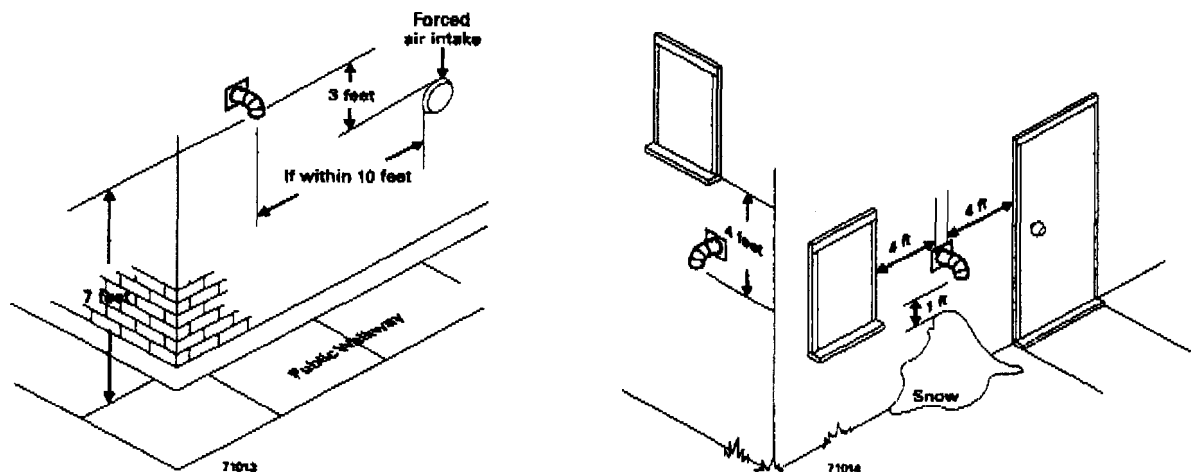
Follow instructions on **this page** when determining vent location to avoid possibility of **severe** personal injury, death or **substantial** property damage.

1. Locate the boiler and vent penetration through the wall so all requirements on **this page** and in **Figure 12** will be met. Also follow vent manufacturer's instructions.
2. Gases will form white plume in winter. Plume could obstruct window view.
3. Prevailing winds could cause freezing of condensate and water/ice buildup on vent termination, building, plants or roof. Ice buildup on vent termination can cause boiler shutdown and building freezeup.
4. Winds over 31 mph can cause nuisance boiler shutdown if boiler is sidewall vented. This could result in loss of heat to building, causing freezeup.
5. Locate or guard vent termination to prevent condensate from damaging exterior surfaces.
6. Locate the vent termination well away from trees, shrubs, and decorative items.
7. Locate or guard vent to prevent accidental contact by people or pets.
8. Do not terminate vent in window well, stairwell, alcove, courtyard, or other recessed areas.
9. Do not wrap or insulate vent pipe or fittings.
10. Do not terminate vent above any door or window. Condensate can freeze, causing ice formations.
11. Do not connect:
 - Any other appliance to vent pipe.
 - Multiple boilers to a common vent pipe.
12. Canadian installations — See B149.1 or B149.2 Installation Code. Terminate vent no less than 6 feet from another combustion air inlet, 3 feet from any other building opening, and 3 feet from any gas service regulator.
13. See **Figure 12**, showing that the vent must terminate:
 - more than 4 feet below or to side of all doors or windows.
 - more than 1 foot above grade or anticipated snow line.
 - at least 7 feet above public walkway.
 - 3 feet above any forced air intake within 10 feet.
14. Vent must also terminate:
 - at least 6 feet away from adjacent walls.
 - no closer than 5 feet below roof overhang.
 - at least 4 feet horizontally (and in no case above or below unless a 4 foot horizontal distance is maintained) from electric meters, gas meters, regulators, relief valves, and other equipment.
15. Site conditions may dictate greater clearances.
16. Do not extend exposed vent pipe outside of building. Condensate could freeze and block vent pipe.

WARNING

A gas vent extending through an exterior wall shall not terminate adjacent to the wall or below building extensions such as eaves, parapets, balconies or decks. Failure to comply could result in severe personal injury, death or substantial property damage.

Figure 12 Vent termination minimum clearances



FasNSeal® Special Gas Vent

The First SILICONE FREE Vent System for Category II, III, & IV Heating Appliances

| PART LIST | | |
|-----------|-----|--------|
| ITEM | QTY | PART # |
| 1 | 1 | 300428 |
| 2 | 1 | 100148 |
| 3 | 1 | 100228 |
| 4 | 1 | 100183 |
| 5 | 5 | 100083 |
| 6 | 1 | 100068 |
| 7 | 1 | 100258 |
| 8 | 1 | 100334 |
| 9 | 1 | 300336 |
| 10 | 1 | 300488 |
| 11 | 1 | 300489 |

TYPICAL OF A SYSTEM
ELEVATION VIEW

are provided.
Call-1.800.766.3473 or
engineering@protechinfo.com

| | | |
|---|------------------------------|-----------|
| IPTSE ProTech Systems, Inc. 400 South Pearl St. Albany, NY 12202 1.800.766.3473 sales@protechinfo.com www.protechinfo.com | 12" FasNSeal W2 SAMPLE | |
| | YOUR COMPANY: | |
| | Drawing No. Sample .ldw | |
| | DRAWN BY: B. McLEAN | 3/13/2003 |
| | SCALE: 1/40 SHEET: 2 OF 6 | REV |

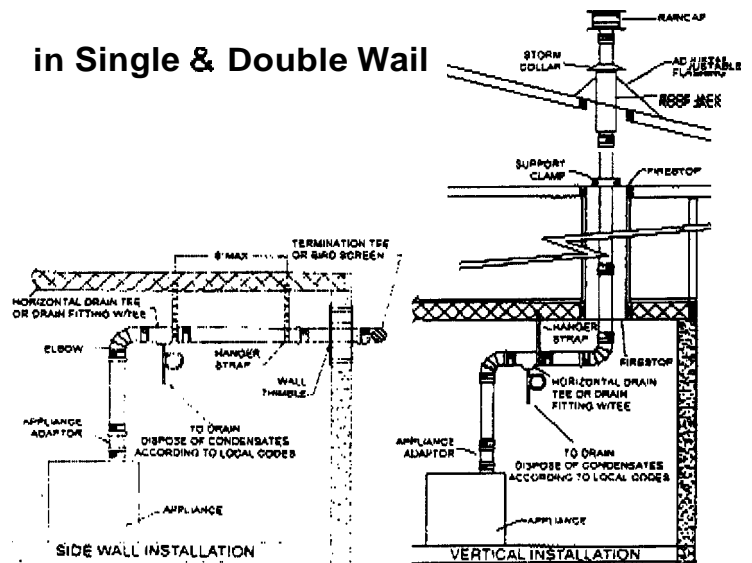
| FEATURES | BENEFITS |
|---|---|
| <ul style="list-style-type: none"> AL29-4C® superferritic stainless steel | <ul style="list-style-type: none"> Recognized by the AGA as the material of choice. Excellent corrosion resistance and structural strength. |
| <ul style="list-style-type: none"> Precision TIG-welded butt seam | <ul style="list-style-type: none"> Seams on vent lengths components are smooth both inside and out. Gas & water-tight. |
| <ul style="list-style-type: none"> Factory built-in, replaceable gaskets | <ul style="list-style-type: none"> System can be taken apart and reassembled quickly. No silicone, no cure time, no mess. |
| <ul style="list-style-type: none"> Factory built-in locking band | <ul style="list-style-type: none"> Line up seams to line up clamps for easy installation. No cumbersome tabs. No external clamps to lose, |
| <ul style="list-style-type: none"> Wall Thimble with built-in Adjustable Vent Length | <ul style="list-style-type: none"> Wall thimble allows for built-in horizontal adjustability. No need to cut pipe. |
| <ul style="list-style-type: none"> Standard Adjustable Vent Length | <ul style="list-style-type: none"> Provides 2" -14" of vertical or horizontal adjustment for easy system pitching. |
| <ul style="list-style-type: none"> Proven track record | <ul style="list-style-type: none"> Tested and listed by Underwriters Laboratories, Inc. to UL 1738 & ULC-S636. Tested and approved by heating equipment manufacturers. 15 year warranty. |

FasNSeal® is a Heating Contractor's Dream Come True. Simply slide FasNSeal® parts together, tighten their FasClamps and fire up the appliance immediately. You get a clean and professional job that is done NOW!

Available in 3" - 16" Diameters
in Single & Double Wall

PROTECH SYSTEMS, INC.
LEADERS IN VENTING TECHNOLOGY

400 South Pearl • Albany, NY 12202
518.463.7284 • Fax: 518.463.5271
1.800.766.3473
sales@protechinfo.com • www.protechinfo.com



MAR 31 2004

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FasNSeal®

Material Selection and Experience Counts

FasNSeal® is manufactured from AL29-4C®, a superferritic stainless steel designed for extreme resistance to chloride ion pitting, crevice corrosion and stress corrosion cracking, as well as general corrosion in oxidizing and moderately reducing environments. AL29-4C® is an ideal choice for resisting deleterious effects of corrosive condensates created by partially or fully condensing natural gas and propane fired heating appliances.

PROTECH SYSTEMS, INC.

CHIMNEY LINING SYSTEMS

Since 1981, ProTech Systems, Inc. (PTS) has developed and delivered innovative vent products to the American Market. PTS has long been recognized as a leader in the Hearth Market and, with the introduction of FasNSeal® to the HVAC industry, has established yet another benchmark.

VENTINOX was the first Chimney Lining System in the U.S. to earn the listing by Underwriters Laboratories in 1982. Utilizing a unique welding technique, **VENTINOX** still maintains its technological lead today and has established a long and impeccable track record.

PTS started producing the first chimney liner ever made from AL29-4C® in 1986 and has gained unprecedented manufacturing experience with this superferritic stainless steel.

Our know-how was leveraged when a brand new manufacturing facility was established to build FasNSeal®. The first gasketed and butt-welded vent system for high efficiency gas and oil-fired appliances. Research has not stopped in the HVAC market need for a product that was safe and readily easy to install, cost-effective and provided a grade-seal of performance in its introduction in 1986. FasNSeal® has become the market leader and standard for today's venting products. To date, many contractors in the HVAC industry, ProTech Systems, Inc. has provided a prompt, reliable and responsive business, after.

CLEARANCE TO COMBUSTIBLES

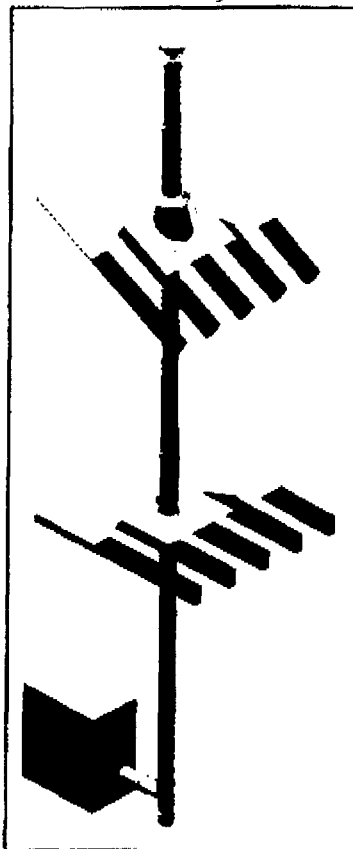
| Max Flue Gas Temperature | Enclosed | | | | Unenclosed | |
|--------------------------|----------------|--------------------------|---|---------|------------|--------|
| | Hor | | Vert | | Hor | Vert |
| | 3" | 370 F 188 C | Sides: 8" / 203.2mm Top: 12" / 304.8mm Bottom: 4" / 101.6mm | 4" | 101.6mm | 1" |
| 4" | 550 F 288 C | | 4" | 101.6mm | 3" | 76.2mm |
| 5" | 370 F 188 C | Noncombustible enclosure | | | 3" | 76.2mm |
| 16" | 550 F 288 C | | | | 3" | 76.2mm |

induced corrosion in condensing and partially condensing gas-fired appliances". AL29-4C® is parented and manufactured by Allegheny Ludlum Corp, FasNSeal® has been tested and is listed by Underwriters Laboratories, Inc. to UL 1738 and ULC-S636-95.

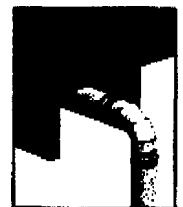
ProTech Systems' own experience with AL29-4C® dates back to 1986, when VENTINOXWG for gas appliances was introduced as the first chimney lining system made from this alloy. **VENTINOX®**

| MATERIAL THICKNESS AL29-4C® | |
|-----------------------------|--------------|
| 3"-7" (78.2mm-177.8mm) | .016" (.4mm) |
| 8"-12" (203.2mm-304.8mm) | .019" (.5mm) |
| 14"-16" (355.6mm-406.4mm) | .024" (.6mm) |

provides safe venting in thousands of American homes today and features a lifetime warranty.



FasNSeal®
Vertical
Installation



FasNSeal® Applications

FasNSeal® is a Special Gas Vent and Gas Vent Connector, made from AL29-4C® stainless steel and designed for use on natural gas or propane-fired appliances listed as Category II, III and IV or in Canada Type BH Gas Vent Systems having a maximum flue gas temperature of 550 degrees F and maximum positive pressure of 15" water column.

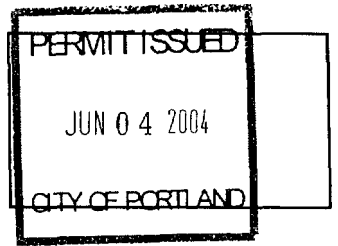
FasNSeal® provides horizontal or vortical venting for high efficiency gas boilers, furnaces, booster heaters, pool heaters, water heaters, unit heaters or tankless water heaters. FasNSeal® may also be used as a vent for Category I, natural gas or propane-fired heaters.

FasNSeal® must be sired according to the heating appliance manufacturers instructions, NFPA 211, NFPA 54 and any other relevant local building codes and regulations (see installation instructions for details!).



FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



436 A15

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 46 York St Portland Use of Building single Date 5-2-04
 Name and address of owner of appliance CHRIS BALLARD
46 York St
 Installer's name and address Jim Jackson 30 Balton St
Portland Telephone 831-1810

Location of appliance:
 Basement Floor
 Attic Roof

Type of Fuel: Natural
 Gas Oil Solid

Appliance Name: West Main
 U.I. 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 # 2731
 Solid Fuel # _____
 Oil # _____
 Gas # PNT1604
 Other _____

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 _____

Number of Tanks _____

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 3500.00
Permit Fee: \$ 57.00

Approved

Approved with Conditions

Fire: _____

See attached letter or requirement

Ele.: _____

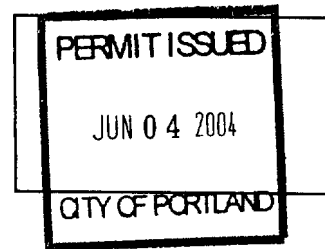
Bldg.: _____

Signature of Installer James M. Jackson Inspector's Signature _____ Date Approved _____

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



FILL IN AND SIGN WITH INK



APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

436 A10

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 46 York St Portland Use of Building single Date 5-2-04
 Name and address of owner of appliance CHRIS BILLARD
46 York St
 Installer's name and address Jim Jackson 30 Bolton St
Portland Telephone 831-1810

Location of appliance:

- Basement
- Floor
- Attic
- Roof

Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name:

West McLain

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 # 2731
- Solid Fuel # _____
- Oil # _____
- Gas # PN-604
- Other _____

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 _____

Number of Tanks _____

Distance from Tank to Center of Flame _____ feet.

Cost of Work: \$ 3500.00

Permit Fee: \$ 500.00

Approved

Fire: _____
 Ele.: _____
 Bldg.: _____

Approved with Conditions

- See attached letter or requirement

Signature of Installer

Jim M. Jackson

Inspector's Signature

Date Approved

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