

SUBMITTAL REVIEW



CLIENT NAME: Vails Gate Fire Department
PROJECT TITLE: Vails Gate FD - New Firehouse
SUBMITTAL No.: 235133-1 **H2M PROJECT No.:** VGFD2001
SUBMITTAL NAME: Prefab Chimneys PD

SUBMITTAL REVIEW	
REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DIMENSIONS OR DETAILS	
<input checked="" type="checkbox"/> NO EXCEPTIONS TAKEN	<input type="checkbox"/> SUBMIT SPECIFIED ITEM
<input type="checkbox"/> MAKE CORRECTIONS NOTED (RESUBMISSION NOT REQUIRED)	<input type="checkbox"/> NO ACTION TAKEN (REVIEW IS THE RESPONSIBILITY OF ANOTHER PARTY)
<input type="checkbox"/> REVISE & RESUBMIT	<input type="checkbox"/> NO ACTION TAKEN (THIS SUBMITTAL IS NOT REQUIRED BY THE CONTRACT)
<input type="checkbox"/> REJECTED - SEE REMARKS	<input type="checkbox"/> RECEIVED FOR RECORD
<p>Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating their work with that of all other trades; and performing the work in a safe and satisfactory manner.</p> <p>H2M architects + engineers</p> <p>Date: 08/08/2023 By: MJV</p> <p>Rev.: 2020-05-20</p>	

Comments:

Contractor to confirm quantities.

CONTRACTOR'S COMPANY NAME
ADDRESS

SUBMISSION TRANSMITTAL FORM
CLIENT NAME: Vails Gate Fire District
PROJECT TITLE: VGFD2001-New Firehouse

H2M PROJECT NO.: VGFD2001

Product, Item, or System Submitted:	Prefabricated Chimneys Product Data		
Submission Date:	8/7/2023	Submission Log No.:	235133-1
Specification Section:	235133	Paragraph Reference:	1.01/B
Contract Drawing Reference(s):			
Manufacturer's Name:			
Manufacturer's Mailing Address:			
Manufacturer's Contact Information:	Name	() Tel. no.	Email
Supplier's Name:	Joseph Lombardo Plumbing & Heating		
Supplier's Mailing Address:			
Supplier's Contact Information:	Name	() Tel. no.	Email
This item is a substitution for the specified item:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	
<p>KEY CONSTRUCTION SERVICES, LLC</p> <p>Project No: VGFD2001</p> <p><small>Reviewed for General Acceptance Only. This review does not relieve the Subcontractors or Suppliers of responsibility for making the work conform to the requirements of the contract. The Subcontractor and Suppliers are responsible for all dimensions, correct fabrication and accurate fit with the work of other trades.</small></p> <p><u>SUBJECT TO ARCHITECT AND OR ENGINEER APPROVAL</u></p> <p>Signed <i>Joseph Manfredi</i> (PM) Date: 8/7/2023</p> <p>Contractor's Approval Stamp with Signature & Date</p>		<p><u>Contractor's Brief Comments or Remarks</u> (attach separate letter as needed):</p> <p>By making this submission, we represent that we have determined and verified all field measurements and dimensions, field construction criteria, site and building constraints in terms of limitations in moving the item into the enclosed space, materials, catalog and model numbers and similar data and that we have checked and coordinated this submission with other work at or adjacent to the installed location in accordance with the requirements contained in the Contract Documents.</p>	

END OF SECTION 013300

Joe Lombardo
Plumbing & Heating of Rockland, Inc.

321 Spook Rock Road
Suffern, NY 10901
Ph. 845-357-6537 Fx 845-357-8529
E: info@josephlombardo.com
Website: www.josephlombardo.com
Rockland Cty. Plumbing #1000 Rockland Cty. Cooling # 1468
Westchester Cty. Plumbing #460 New Jersey State Plumbing #12702

TO: Key Construction
4246 Albany Post Rd. Suite 1
Hyde Park, NY 12538

LETTER OF TRANSMITTAL

Form with fields: DATE: 8.7-23, JOB NO., ATTENTION: Joe Manfredi, RE: Vails Gate Firehouse

WE ARE SENDING YOU [] Attached [] Under separate cover via the following items:
[] Shop Drawings [] Prints [] Plans [] Samples [] Specifications
[] Copy of letter [] Change order []

Table with 4 columns: EMAIL, DATE, NO., DESCRIPTION. Row 1: 1, 8.7.23, 235133, Prefabricated chimneys for boilers

THESE ARE TRANSMITTED as checked below:
[] For approval [] No Exceptions Taken [] Resubmit copies for review
[] For your use [] Make Corrections Noted [] Submit copies for distribution
[] As requested [] Rejected [] Return corrected prints
[] For review and comment []
[] FOR BIDS DUE 20 [] PRINTS RETURNED AFTER LOAN TO US

COPY TO: Joe Manfredi SIGNED: Ronald J. Lombardo



SUBMITTAL

Date:	<u>8/4/2023</u>	Engineer:	<u>H2M ENGINEERING</u>
Submitted To:	<u>JOSEPH LOMBARDO PLBG & HTG</u>	Job Name:	<u>VAILS GATE FIRE DISTRICT,</u>
WD Quote #:	<u>80932</u>		<u>PHASE 1 & 2</u>
WD Job #:	<u>2208239</u>	Job Address:	<u>872 BLOOMING GROVE TURNPIKE</u>
			<u>NEW WINDSOR, NY 12553</u>

Tag	Qty	Manufacturer	Model Number	Description
BL-1 & 2	2	Z-FLEX	Z-VENT	AL29-4C STAINLESS STEEL GAS VENT FOR CONDENSING BOILERS

Submitted for (Select one): X Approval _____ Re-Submission _____ Record Purposes
WD Submitted/Reviewed By: GREG ZIMMERMAN

New York	Pennsylvania	New Jersey
2910 Express Dr S, Islandia, NY 11749	1650 Market St #3600, Philadelphia, PA 19103	5B Powder Horn Dr, Warren, NJ 07059
Tel: 631.585.6800	Tel: 267.370.5204	Tel: 732.560.1001
Email: infony@walesdarby.com	Email: infopa@walesdarby.com	Email: infonj@walesdarby.com

Z-Vent® Gas Vent

The revolutionary self-sealing Gas Vent System that dramatically reduces installation costs.

- Gasketed connections
- Fusion welded pipe seams
- No sealant required, no cure time
- Air-tight seam, smooth finish, better fit
- Metallic Gas Vent
- Cut to length on site saves time and lowers cost
- Single-wall and Double-wall manufactured in diameters up to 24"

Double Fail Safe Gaskets

Z-VENT® Gas Vent components are supplied with self-sealing gasket connections that install in half the time of field sealed systems.

The Double Fail Safe gasket, along with precision engineered close tolerance construction of components, ensure an air and water tight fit with optimum vent performance and reliability.

Pressure Rating

Z-VENT® Gas Vent components are supplied with factory installed, *Double Fail Safe* gaskets UL rated to 8" W.C.

UL Tested and Listed

Z-VENT® Gas Vent System is listed by Underwriters Laboratories to UL 1738 and ULC S636 in UL File MH18505 as a Venting System for Category I, II, III, and IV Gas Burning Appliances. Z-Vent® is leakage tested to 2½ times the UL pressure rating of 8" W.C. ensuring connection reliability and performance.



Z-Vent® Double Wall Snap Lock Construction shown

Suggested Specification:

Venting shall be **Z-VENT®** as manufactured by **Z-Flex®**. (1-800-654-5600). The vent system shall consist of factory fusion welded pipe and fittings incorporating a factory fitted self-sealing gasket which, when installed in accordance with the manufacturers installation instructions, will seal the pipe joints without the use of field applied sealant.

The vent system is rated up to 8" W.C. of positive, neutral and negative pressure. The vent system is listed by Underwriters Laboratories to UL1738/ULC S636 with a maximum rated vent gas temperature of 550° F for up to 12" diameter and 480° F for 14" - 24" diameters.

APPLICATION

Z-Vent® is a factory built, engineered Special Gas Vent System suitable for venting positive, neutral or negative pressure residential and commercial gas fired heating equipment. The maximum rated vent gas temperature is 550° F for up to 12" diameter and 480° F 14" - 24" diameters.

Z-Vent® can be installed in practically any configuration through the use of a wide range of pipe, fittings, terminations and appliance specific adaptors.

Z-Vent® Double Wall is recommended when vent is installed in unheated space, where vent temperature/draft needs to be maintained and where greater structural durability or reduced surface temperature/clearance to combustibles is required.

See **Z-Vent®** installation instructions and appliance manufacturer's instructions for recommended clearance to combustibles.

CLEARANCE TO COMBUSTIBLES

Minimum Air Space Clearance to Combustible Materials and Building Insulation

Vent Diameter	Maximum Rated Vent Gas Temperature	Enclosed		Unenclosed	
		Horizontal	Vertical	Horizontal	Vertical
Up to 12"	550°F (288°C)	Non-Combustible Material	6" (150mm)	Single Wall: 3" (75mm)	
	480°F (249°C)		4" (100mm)	Double Wall: 2" (50mm)	
14" to 24"	480°F (249°C)	Non-Combustible Material			3" (75mm)
	300°F (149°C)	Single Wall: Non-Combustible Material		1" (25mm)	
		Double Wall: 8" (200mm)	Double Wall: 4" (100mm)		

CONSTRUCTION

The inner vent is manufactured from superferritic **UNS S44735** (i.e. **AL29-4C®**) stainless steel. This alloy shows excellent resistance to chloride ion pitting, crevice corrosion and stress corrosion cracking, making it the ideal choice for battling the effects of high temperature vent gases and corrosive condensate from high efficiency gas heating equipment. A unique built-in Double Fail Safe Gasket provides air and water tight connection with no sealant required. The double wall system has a one inch air space between the vent walls providing an insulation factor. The outer wall is fabricated from Type 304 stainless steel or optional 316 on special orders where vent is installed in potentially corrosive environments. Fusion welded components provide superior fit, reduced turbulence and flow resistance. Also eliminated are crevices and other spots where condensate can collect and corrode the vent.

MATERIAL SPECIFICATION

ASTM A268, A240. ASME SA268, SA240

PATENTED SEALING SYSTEM

Z-VENT® components are supplied with factory installed, patented (US patent 6-523-865), *Double Fail Safe* self-sealing gasket. The gasket special design along with precision engineered close tolerance construction of components ensure an air and water tight fit leakage tested to 2½ times the UL pressure rating of 8" W.C.

APPROVAL

Up to 24in. UL tested and listed to UL1738/ULC S636 as a Venting System for Gas-Burning Appliances, Category I, II, III and IV in UL File MH18505.

Please note: Different manufacturers have different joint systems and adhesives. Do not mix pipe, fittings or joining methods from different manufacturers without an approved adapter, as doing so will void any and all warranties.

AL29-4C is a registered trademark of ATI Properties, Inc.

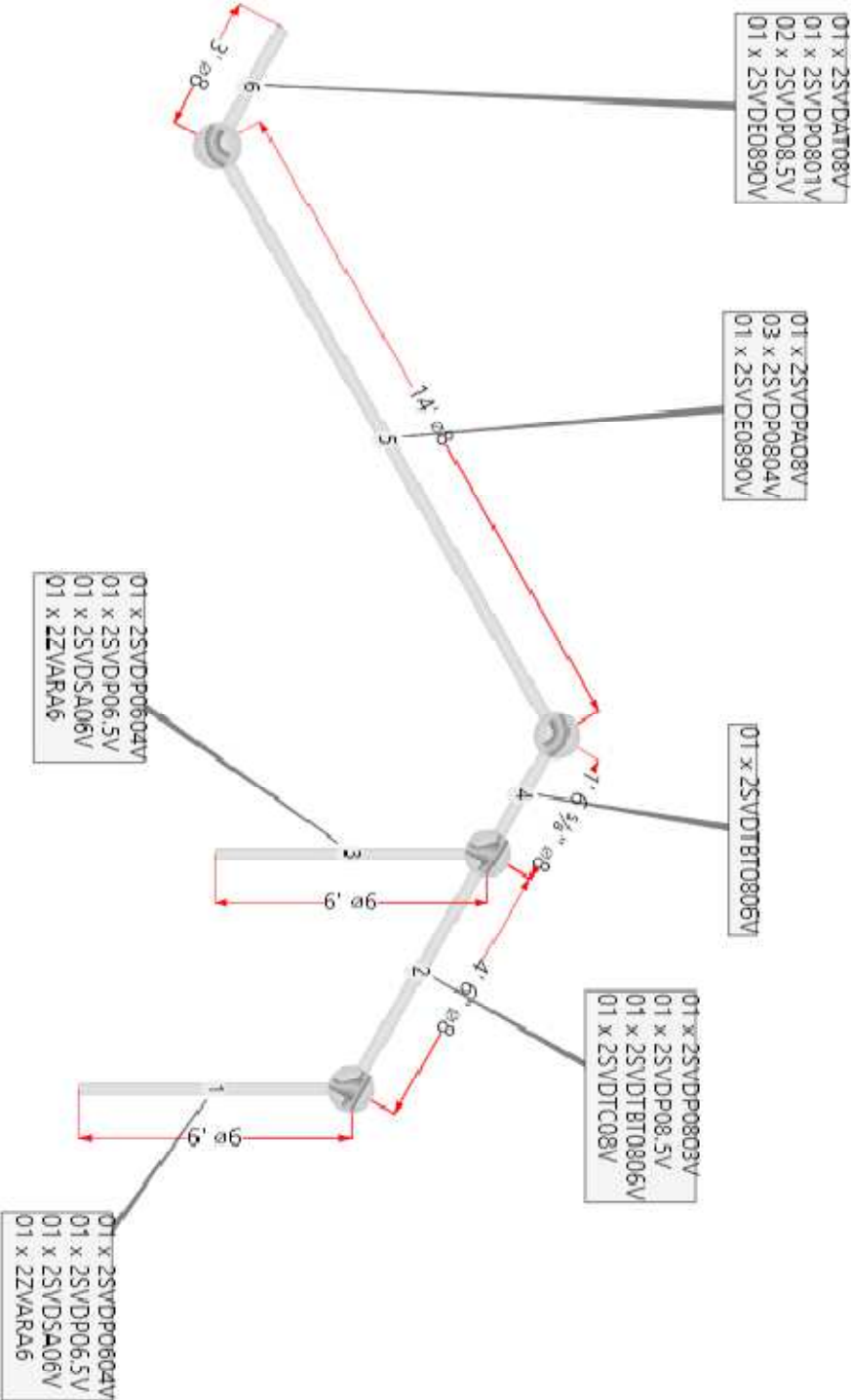
The information provided within is for informational purposes only. We have made every effort to ensure the accuracy of the provided information and assume no responsibility for any loss or damage due to errors or omissions or to the use or misuse of any information supplied. It is impossible to test all products under all conditions to which they might be subjected in the field. It is therefore the buyer and/or end users' responsibility to test all products under the conditions that duplicate the service conditions prior to installation. All improvements, all specifications are subject to change without prior notice. It is the buyer and/or end users' responsibility to review our complete Terms and Conditions of Sale located on our web sites at: www.novaflex.com | www.z-flex.com | www.flexmaster.com.

U.S.A.

20 Commerce Park North, Bedford, NH 03110-6911
Tel: 603.669.5136 Fax: 888.889.3539 Toll Free: 800.654.5600

CANADA

452 Attwell Drive, Etobicoke, ON M9W 5C3
Tel: 416.679.0045 Fax: 416.679.0051



Customer			
Joseph Lombardo			
Plumbing & Heating			
Project			
Vails Gate Fire District			
Layout			
(2) Riello AR800: 6-8 DW			
Date			
8/3/2023		By	Joshua Remy
System No		Ref.No	2208239
2208239		80932	Scale
			None

SUBMITTAL / SCOPE

AL29-4C Venting

Project Data

Job No:	2208239	Project Name:	Vails Gate Fire District, Phase 1 & 2
Date:	8/3/2023	Location:	872 Blooming Grove Turnpike New Windsor, NY
Prepared for:	Joseph Lombardo Plumbing & Heating	Layout/BOM Title:	(2) Riello AR800: 6-8 DW
Prepared by:	Z-Flex	Product(s):	Z-VENT Double Wall ZV-Clamp

Quote

Qty	Item No	Description
2	2LUBE	JOINT LUBE 5.3 OZ TUBE
2	2ZVARA6	Z-VENT ADAPT RIELLO ARRAY 6-6ZV
2	2SVDSA06V	ZV SW TO ZVC DW ADAPTOR 6 IN
2	2SVDP06.5V	ZVC DW PIPE 6 IN X 6 IN
2	2SVDP0604V	ZVC DW PIPE 6 IN X 4 FT
1	2SVDTC08V	ZVC DW TEE CAP 8 IN
2	2SVDTBT0806V	ZVC 8 IN DW BOOT TEE W/6 IN BRANCH
3	2SVDP08.5V	ZVC DW PIPE 8 IN X 6 IN
1	2SVDP0803V	ZVC DW PIPE 8 IN X 3 FT
2	2SVDE0890V	ZVC DW ELBOW 8 IN X 90 DEG
3	2SVDP0804V	ZVC DW PIPE 8 IN X 4 FT
1	2SVDPA08V	ZVC DW 9-15.5" ADJ LENGTH PIPE 8 IN
1	2SVDP0801V	ZVC DW PIPE 8 IN X 1 FT
1	2SVDAT08V	ZVC DW 45 ANGLE TERM 8 IN

Section Legend

Section	Product	Dia/Cross Dim	Vertical	Horizontal	Length
1	Z-VENT Double Wall ZV-Clamp	ø6	6' 0" (72")	0' 0" (0")	6' 0" (72")
2	Z-VENT Double Wall ZV-Clamp	ø8	0' 0" (0")	4' 6" (54")	4' 6" (54")
3	Z-VENT Double Wall ZV-Clamp	ø6	6' 0" (72")	0' 0" (0")	6' 0" (72")
4	Z-VENT Double Wall ZV-Clamp	ø8	0' 0" (0")	1' 6 ⁵ / ₈ " (18 ⁵ / ₈ ")	1' 6 ⁵ / ₈ " (18 ⁵ / ₈ ")
5	Z-VENT Double Wall ZV-Clamp	ø8	0' 0" (0")	14' 0" (168")	14' 0" (168")
6	Z-VENT Double Wall ZV-Clamp	ø8	0' 0" (0")	3' 0" (36")	3' 0" (36")
Total			12' 0" (144")	23' 0 ⁵ / ₈ " (276 ⁵ / ₈ ")	35' 0 ⁵ / ₈ " (420 ⁵ / ₈ ")

Order of Install

Section	Qty	Item No	Description
1	1	2ZVARA6	Z-VENT ADAPT RIELLO ARRAY 6-6ZV
1	1	2SVDSA06V	ZV SW TO ZVC DW ADAPTOR 6 IN
1	1	2SVDP06.5V	ZVC DW PIPE 6 IN X 6 IN
1	1	2SVDP0604V	ZVC DW PIPE 6 IN X 4 FT

2	1 2SVDTC08V	ZVC DW TEE CAP 8 IN
2	1 2SVDTBT0806V	ZVC 8 IN DW BOOT TEE W/6 IN BRANCH
2	1 2SVDP08.5V	ZVC DW PIPE 8 IN X 6 IN
2	1 2SVDP0803V	ZVC DW PIPE 8 IN X 3 FT
3	1 2ZVARA6	Z-VENT ADAPT RIELLO ARRAY 6-6ZV
3	1 2SVDSA06V	ZV SW TO ZVC DW ADAPTOR 6 IN
3	1 2SVDP06.5V	ZVC DW PIPE 6 IN X 6 IN
3	1 2SVDP0604V	ZVC DW PIPE 6 IN X 4 FT
4	1 2SVDTBT0806V	ZVC 8 IN DW BOOT TEE W/6 IN BRANCH
5	1 2SVDE0890V	ZVC DW ELBOW 8 IN X 90 DEG
5	3 2SVDP0804V	ZVC DW PIPE 8 IN X 4 FT
5	1 2SVDP08V	ZVC DW 9-15.5" ADJ LENGTH PIPE 8 IN
6	1 2SVDE0890V	ZVC DW ELBOW 8 IN X 90 DEG
6	2 2SVDP08.5V	ZVC DW PIPE 8 IN X 6 IN
6	1 2SVDP0801V	ZVC DW PIPE 8 IN X 1 FT
6	1 2SVDAT08V	ZVC DW 45 ANGLE TERM 8 IN

Last revised on 8/3/2023 4:15:53 PM. This layout was processed using Boiler/WH Application Rules.

1. The Proposed vent system drawing and associated list of parts is based on customer input. Customer is responsible for reading and following all Z-Flex vent installation instructions, verifying accuracy of vent system drawing including layout and all dimensions and any Professional Engineer approval required before ordering or installing vent.
2. Installer must read and follow all equipment manufacturers' installation instructions especially venting instructions: detailing allowable venting material, vent configurations, vent diameter and equivalent vent length limitations.
3. All horizontal vent runs must slope upwards a minimum of 1/4 inch per foot for condensate to flow back to condensate drain(s) with trap(s).
4. Only Z-Flex joint lubrication may be used as an aid when assembling vent. Apply a thin film to leading edge of gasket or outside leading edge of male fitting before fully inserting male end in joint. Do not penetrate single wall vent with screws, rivets, etc. Do not overtighten clamps or use power tools when tightening clamps.
5. Install horizontal and vertical supports per Z-Flex Installation Instructions. Remember to support appliance adaptor and all fittings especially adjustable lengths.
6. Local and national codes must be followed when installing this venting system.
7. Install carbon monoxide detector and alarms in accordance with local codes. Consult Authority Having Jurisdiction before ordering or installing vent if you have any concerns regarding this venting system design.



Z-Vent® Double Wall

www.z-flex.com

UL1738 & ULC-S636 Listed Category I, II, III, IV Stainless Steel Gas Vent

1-800-654-5600

PART 1 GENERAL

1.1 SCOPE

- A. All work in this Section shall comply with the Mechanical General Specifications for this job, if any.
- B. This Section includes specifications for furnishing and installing of a UL1738 & ULC-S636 Listed Double Wall Stainless Steel Vent for Category I, II, III, IV Gas Fired Appliances.

1.2 SUBMITTALS

Submit the following for the Vent System in accordance with this Section:

- A. Layout Drawings
- B. Sizing Calculations if applicable
- C. Product Catalog
- D. Installation Instructions
- E. Product Warranty

1.3 CODES AND APPLICABLE STANDARDS

Gas Vent System furnished under this Section shall be listed to UL1738 & ULC-S636 Vent Standards and installed in accordance with all applicable local, state and national and provincial codes, ordinances, regulations and laws such as The National Fuel Gas Code, ANSI Z223.1/NFPA-54 (USA) or Natural Gas and Propane Installation Code, B149.1 (Canada) or such codes as BOCA National Mechanical Code, the Standard Mechanical Code, the Uniform Mechanical Code where applicable.

1.4 WARRANTIES

The manufacturer shall warrant the Vent System against defects in material and workmanship for a period of 15 years from the date of the purchase. Any portion of the vent repaired or replaced under the warranty shall be warranted for the remainder of the original warranty period.

PART 2 PRODUCTS

2.1 UL1738 & ULC-S636 Listed Double Wall Stainless Steel Vent for Category I, II, III, IV Gas Fired Appliances

- A. The factory built double wall vent shall be engineered for use with category I, II, III or IV gas fired appliances or as specified by the gas fired appliance manufacturer.
- B. Inner vent shall be constructed of UL Listed UNS S44735 (i.e. AL 29-4C®) superferritic stainless steel or UL Listed alternate.
- C. Inner vent shall include a factory installed Double Fail Safe FKM (fluoroelastomer) gasket in the female end of vent yielding an air and water tight joint when the overlapping male/female ends are assembled per the vent manufacturer's instructions.
- D. The outer double wall shall be constructed of 304 or 316 stainless steel and have a 1" insulating air space around the inner vent to outer double wall.
- E. The outer double wall shall incorporate a joint closure system which includes a snap lock or flanges with ZV-Clamp.
- F. Double wall vent shall be compatible to single wall & smoothcore flexible vents with an adaptor all from the same vent manufacturer.
- G. Maximum UL rated vent gas temperature shall not exceed 550°F for up to 12" diameter vents and 480°F for 14" to 24" diameter vents.
- H. Vent shall be UL rated for a maximum pressure of 8" w.c. and shall have passed UL leakage test at 20" w.c.
- I. The vent system shall be continuous from the appliance's flue outlet to the vent termination outside the building. All systems components such as vent supports, roof or wall penetrations, terminations, appliance connectors and drain fittings shall be UL/cUL listed and supplied by the same vent manufacturer.
- J. Vent components in direct contact with products of combustion must include a UL/cUL label.

2.2 MANUFACTURER

Vent shall be Z-Vent® Double Wall manufactured by Z-Flex U.S. or Flexmaster Canada.



Z-Vent® Double Wall

www.z-flex.com

UL1738 & ULC-S636 Listed Category I, II, III, IV Stainless Steel Gas Vent

1-800-654-5600

PART 3 EXECUTION

3.1 VENT SYSTEM LAYOUT

- A. The vent system and breachings shall be cleaned and inspected before connecting to appliance.
- B. The vent system shall maintain air space clearances to combustibles as specified by the manufacturer.
- C. Vent layout shall be designed and installed in compliance with manufacturer's installation instructions including vent category, vent diameter, maximum equivalent length and/or allowable vent pressures, number of elbows, condensate drains, terminations, slope, clearances, support, etc.
- D. Vent system installation shall conform to the manufacturer's installation instructions, its UL/cUL listing and state/local codes.

3.2 MECHANICAL EQUIPMENT

- A. Support any dampers or fans installed in the vent system to prevent any twisting or movement of vent system from fan torque or vibration.