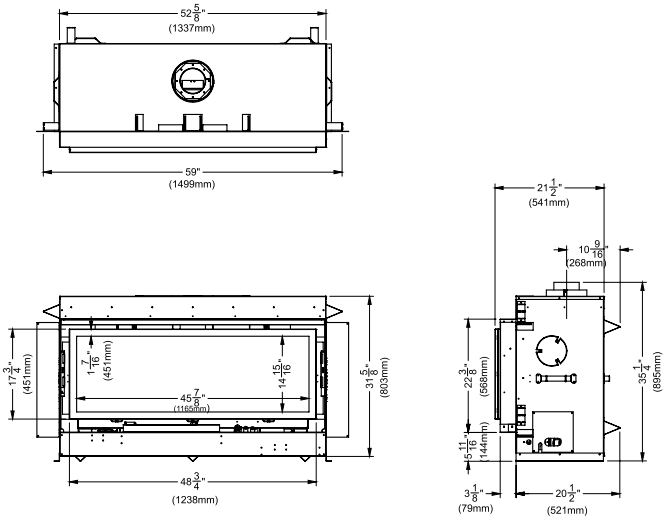
HZ54E Gas Fireplace

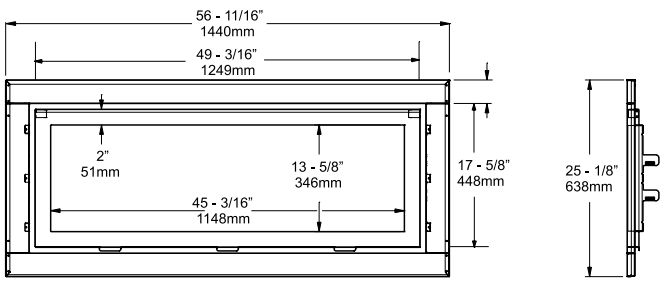
Model	HZ54E-NG11	HZ54E-LP11
Fuel Type	Natural Gas	Propane Gas
Minimum Supply Pressure	5" W.C.(1.25 kPa)	12" W.C. (2.98 kPa)
Manifold Pressure - High	3.5" W.C. (0.87 kPa)	10" W.C. (2.49 kPa)
Manifold Pressure - Low	1.6" W.C. (0.40 kPa)	6.4" W.C. (1.59 kPa)
Orifice Size	#30 DMS	#49 DMS
Minimum Input **Altitude 0-4500 ft. (0-1372m)**	29,000 BTU/h (8.50 kW)	30,000 BTU/h (8.79kW)
Maximum Input **Altitude 0-4500 ft. (0-1372m)**	41,500 BTU/h (12.16 kW)	37,000 BTU/h (10.84 kW)
Vent Sizing	5" Inner / 8" Outer	5" Inner / 8" Outer
CSA P.4.1	64.45%	67.72%

Approved Venting Systems	
Flex Vent Systems:	**FPI AstroCap™ Flex Vent**
Rigid Pipe Vent Systems:	**Simpson Direct Vent Pro® Selkirk Direct-Temp™ Metal-Fab® Sure Seal ICC Excel Direct**

Unit Dimensions:



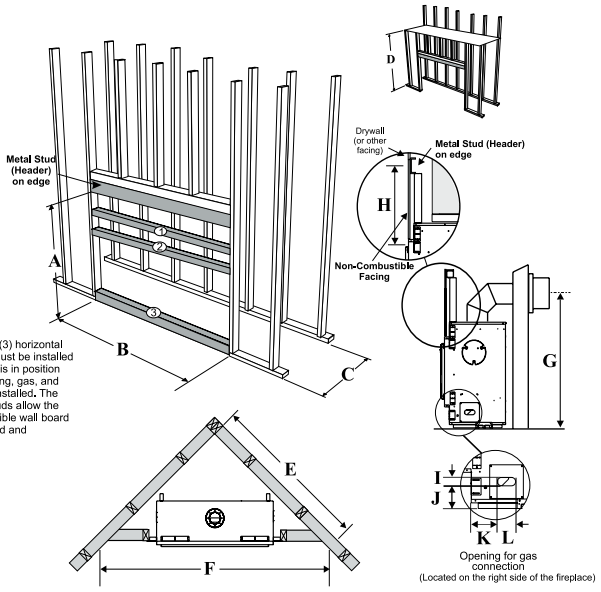
Faceplate & Door Frame Dimensions:



Framing Dimensions:

Framing Dimensions	Description	HZ54E-11
A	Framing Height	46-5/8"
B	Framing Width	60"
C*	Framing Depth*	23-3/4"
D	Minimum Height to Combustibles	51"
E	Corner Wall Depth	69"
F	Corner Facing Wall Width	97-9/16"
G	Vent Centerline Height	44"
R	Non-combustible Facing Height	20"
S	Gas Connection Opening Height	1-1/2"
T	Gas Connection Height	4"
U	Gas Connection Inset	7-1/4"
V	Gas Connection Opening Width	3-1/4"

* Framing depth measurement is noted with the side nailing strips set as far forward on firebox as possible. The side nailing strips can be adjusted back up to 3-1/8" to allow for varying thicknesses in non-combustible material & wall finishes.
Important: The minimum framing dimensions given for height, width and depth must be maintained even if using non combustible material. Dangerous operating conditions will occur if minimum framing dimensions are not adhered to.



Note: Three (3) horizontal steel studs must be installed after the unit is in position and the venting, gas, and electrical is installed. The horizontal studs allow the non-combustible wall board to be attached and supported.

CLEARANCES

The clearances listed below are Minimum distances unless otherwise stated:

A major cause of chimney related fires is failure to maintain required clearances (air space) to combustible materials. It is of the greatest importance that this fireplace and vent system be installed only in accordance with these instructions.

Caution Requirements
The top, back and sides of the fireplace are defined by standoffs. The metal ends of the standoff may **NOT** be recessed into combustible construction.

WARNING
Fire hazard is an extreme risk if these clearances (air space) to combustible materials are not adhered to. It is of greatest importance that this fireplace and vent system be installed only in accordance with these instructions.

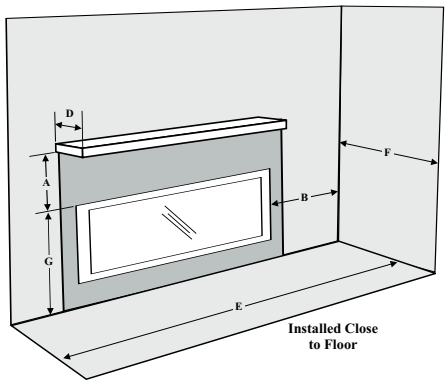
Clearance:	Dimension	Measured From:
A: Mantel Height (min.)	20" (508mm)	Top of Fireplace Opening
B: Sidewall (on one side)	4" (102mm)	Side of Fireplace Opening
C: Ceiling (room and/or alcove)	40-7/8" (1038mm)	Top of Fireplace Opening
D: Mantel Depth (max.)	13" (330mm)	30" Above Fireplace Opening
E: Alcove Width	83" (2108mm)	Sidewall to Sidewall (Minimum)
F: Alcove Depth	36" (914mm)	Front to Back Wall (Maximum)
G: To Floor	28 - 7/8" (733mm)	Top of Fireplace Opening
Note	0"	No hearth required

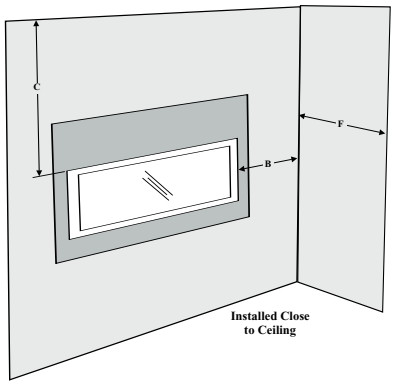
Heat Wave

Heat Release Kit

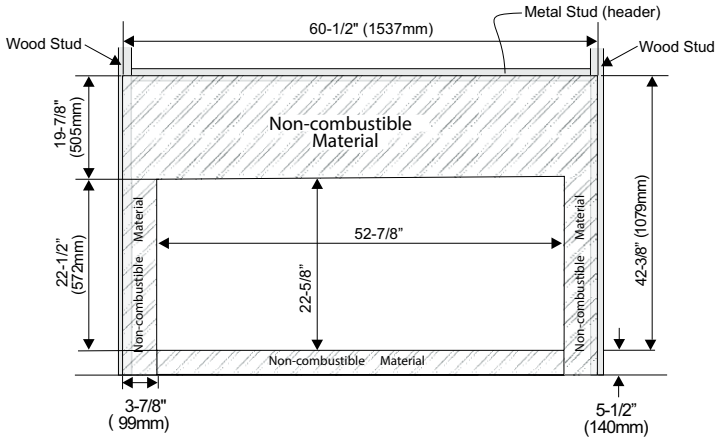
The ***HeatWave*** Duct Kit and the Heat Release Kit have different clearance and framing requirements, check the ***HeatWave*** and Heat Release manual for details.

Flue Clearances to Combustibles	
Horizontal - Top	3"
Horiztonal - Side	2"
Horiztonal - Bottom	2"
Vertical	2"
Passing through wall/ floor/ceiling - when firestop is used.	1-1/2"



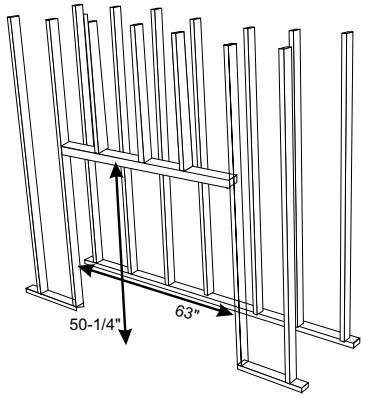


NON-COMBUSTIBLE REQUIREMENTS



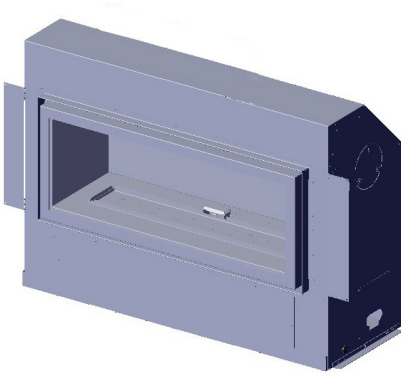
OPTIONAL FRAMING KIT

1. Construct the wood framing, ensure the inside dimensions are 63" W x 50-1/*4" H



2. Bend both nailing strips from the sides of the appliance until positioned as shown below.

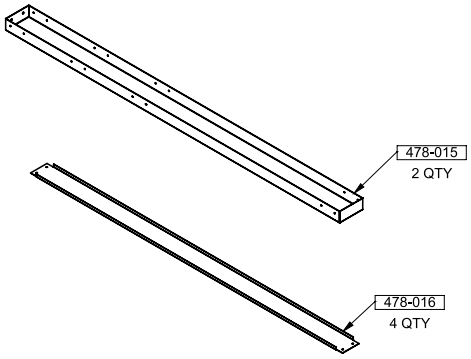
Determine the overall combined thickness of the non-combustible board +finished material being used. The nailing strips can be adjusted 3-1/8".

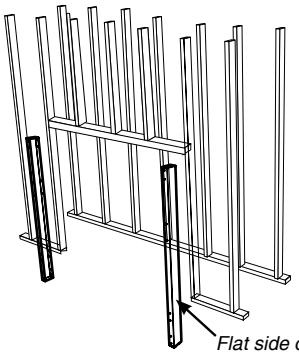


3. Adjust nailing strips by loosening 2 screws on each nailing strip - adjust and retighten the screws

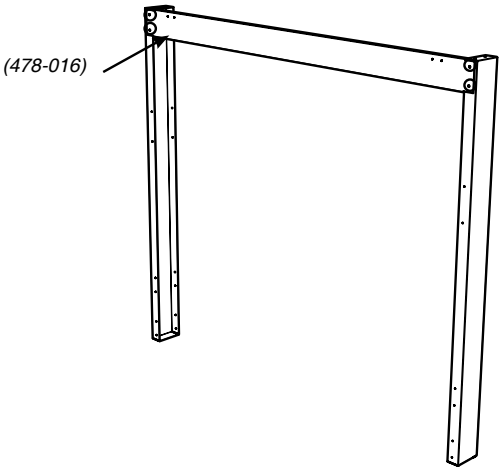
4. Attach both vertical studs *(478-015)* and secure using 6 screws (2 at bottom, 2 at top and 2 on the sides) as shown

NOTE: Ensure the flat side of the steel stud is facing the wood framing.



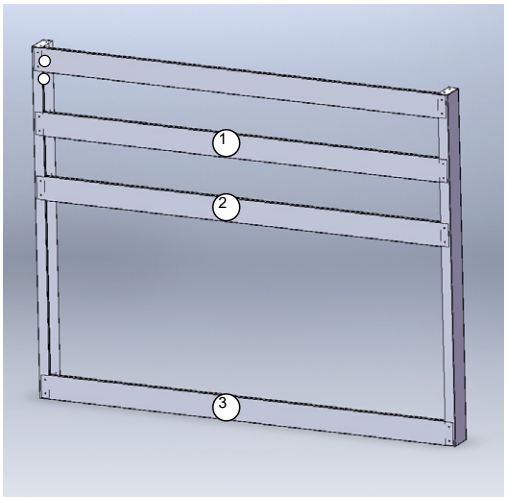


5. Secure horizontal steel header with 2 screws per diagram



6. Slide the unit in position. Hook up gas, venting and electrical and fan (if purchased) prior to installing the remaining horizontal steel studs.

7. Secure 3 horizontal steel studs *(478-016)* with 2 screws on each end. 2 at the top and one at the bottom as shown.



FRAMING & FINISHING

1) Frame in the enclosure for the unit with framing material.

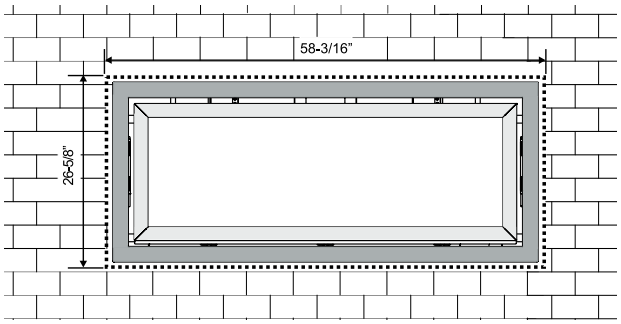
IMPORTANT: Header must be metal stud. All other framing may be of combustible type such as 2x4 / 2x6 framing materials.
Note: When constructing the framed opening, please ensure there is access to install the gas lines when the unit is installed.

2) For exterior walls, insulate the enclosure to the same degree as the rest of the house, apply vapour barrier and drywall, as per local installation codes. **(Do not insulate the fireplace itself.)**

WARNING: Failure to insulate and add vapor barriers to the inside of the exterior wall will result in operational and performance problems including, but not limited to: excessive condensation on glass doors, poor flame package, carbon, blue flames etc. These are not product related issues.

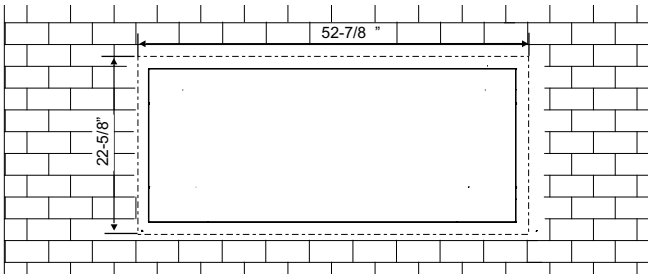
3) The unit does not have to be completely enclosed in a chase. You must maintain clearances from the vent to combustible materials: See "Clearances" section. Combustible materials can be laid against the side and back standoffs and the stove base.

4) When finishing around the faceplate, if material such as brick, stone, etc. extend past the faceplate depth due to the finished material exceeding 3-1/8" - the minimum opening dimensions noted below **must** be adhered to, this is to ensure removal of the faceplate.



Faceplate and Door Frame-Perfect Edge Design

For material such as brick, stone, etc that extends 3-1/8" or less , the minimum opening dimensions noted below must be adhered to when finishing around the unit. This is to ensure the removal of the faceplate and for the safe operation of this appliance.



Unit shown without faceplate for Illustrative purposes only

Important:

Determine the nailing strip position by determining the facing material being used.

Examples:

1/2" non-combustible wall board for clean finish = 2-5/8" adjustment.

1/2" non-combustible wall board + 1/2" tile = 1" of finished material
= 2-1/8" adjustment.

Note:

Depending on the material used for finishing, the nailing strips must be set accordingly so that the finished material is always at the 3-1/8" edge of the flange.

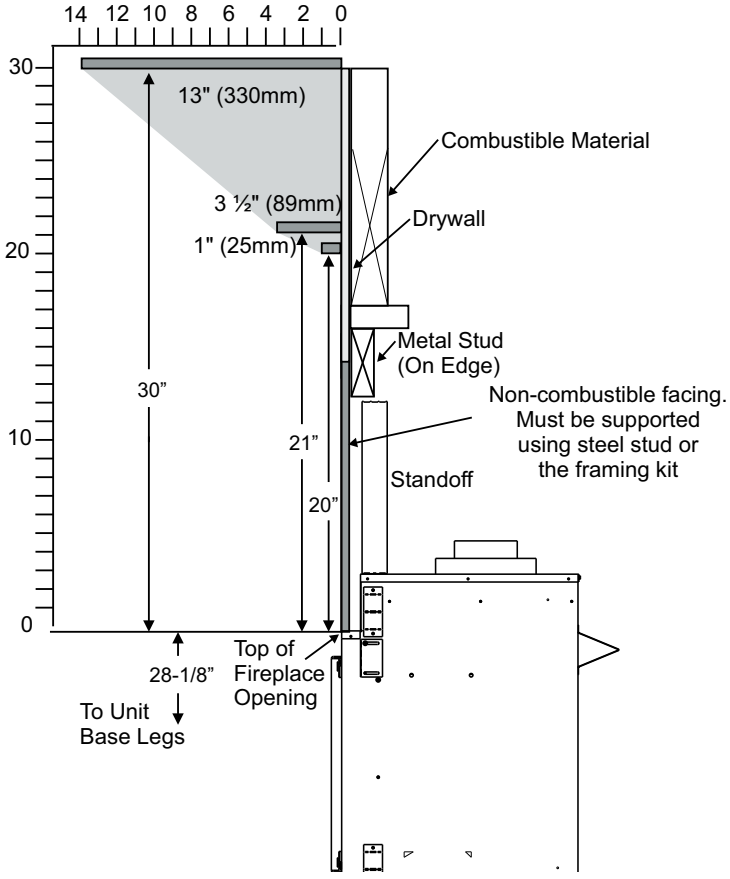
NOTE: The Verona Glass Surround (not shown) requires a: 60-1/16" W x 28- 5/8" H opening

MANTEL CLEARANCES

Due to the extreme heat this fireplace emits, the mantel clearances are critical. Combustible mantel clearances from top of front facing are shown in the diagram on the right.

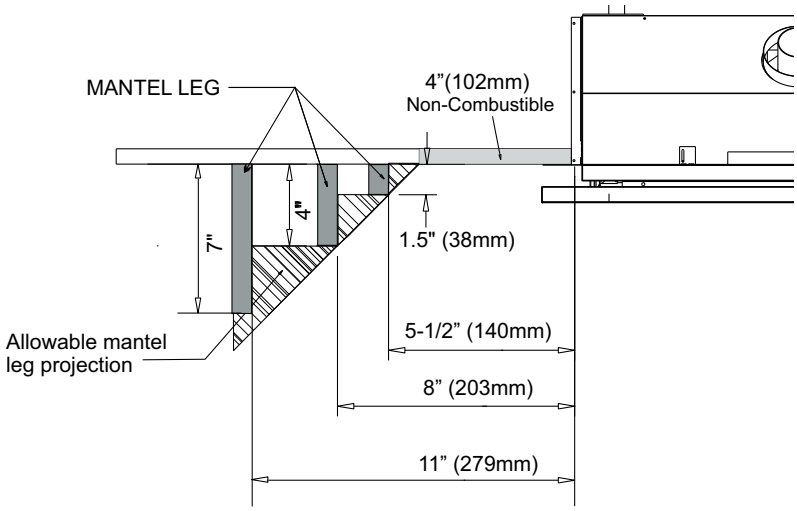
Note: A non-combustible mantel may be installed at a lower height if the framing is made of metal studs covered with a non-combustible board.

Note: Ensure the paint that is used on the mantel and the facing is "High Quality" or the paint may discolour.



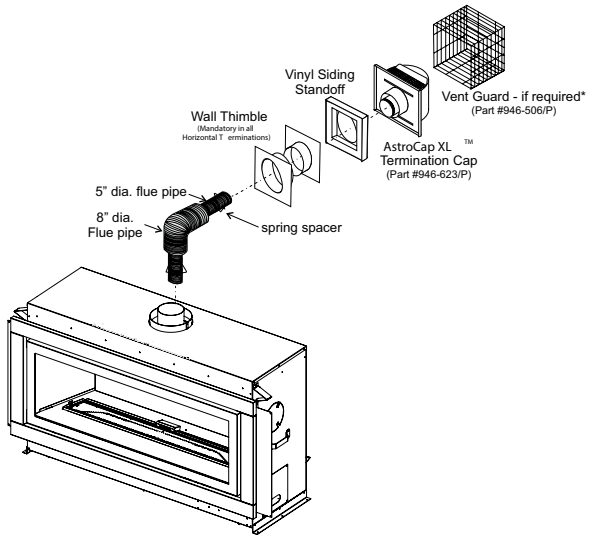
MANTEL LEG CLEARANCES

Combustible mantel leg clearances as per diagram:



These venting systems, in combination with the HZ54E, have been tested and listed as a direct vent system by Intertek. The location of the termination cap must conform to the requirements in the Vent Terminal Locations diagram from the “Exterior Vent Termination Locations” section.

FPI Kit #	Length	Contains:
#946-615	4 Feet	**1.** 8” flexible liner (Kit length) **2.** 5” flexible liner (Kit length) **3.** spring spacers **4.** thimble **5.** ***AstroCap*** termination cap **6.** screws **7.** tube of Mill Pac **8.** plated screws **9.** S.S. screws #8 x 1-1/2” drill point **10.** vinyl siding standoff
#946-618	6 Feet	
#946-616	10 Feet	



Rigid Pipe Vent Systems offer a complete line of component parts for installation of both horizontal and vertical installations. Many items are offered in decorative black, as well as galvanized finish.

The minimum components required for a basic <u>Horizontal Termination</u> are:

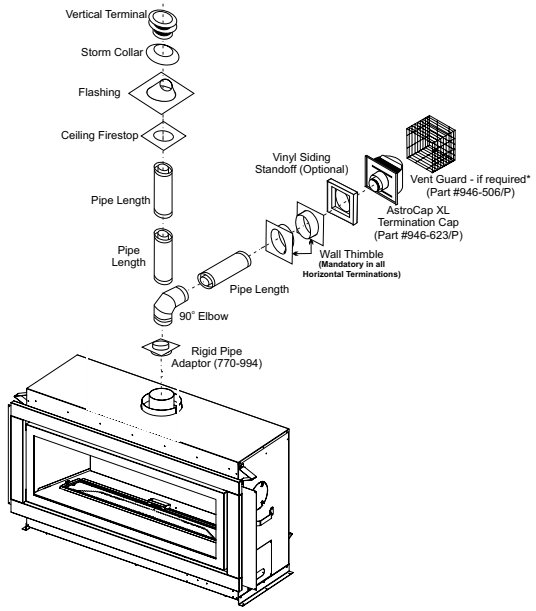
1 AstroCap XL Termination Cap
1 90º Elbow
1 Rigid Pipe Adaptor
1 Wall Thimble
1 Length of rigid pipe to suit wall thickness

The minimum components required for a basic <u>Vertical Termination</u> are:

1 Vertical Termination Cap
1 Rigid Pipe Adaptor
1 Lengths of pipe to adequately penetrate roof
1 Ceiling Firestop
1 Flashing
1 Storm Collar

Wall thickness is measured from the back standoffs to the inside mounting surface of termination cap. For siding other than vinyl, furring strips may be used, instead of a vinyl siding standoff, to create a level surface to mount the vent terminal. The Terminal must not be recessed into siding. Measure the wall thickness including furring strips.

If a Vinyl Siding Standoff is required (it must be used with vinyl siding), measure to outside surface of wall without siding and add 2 inches.



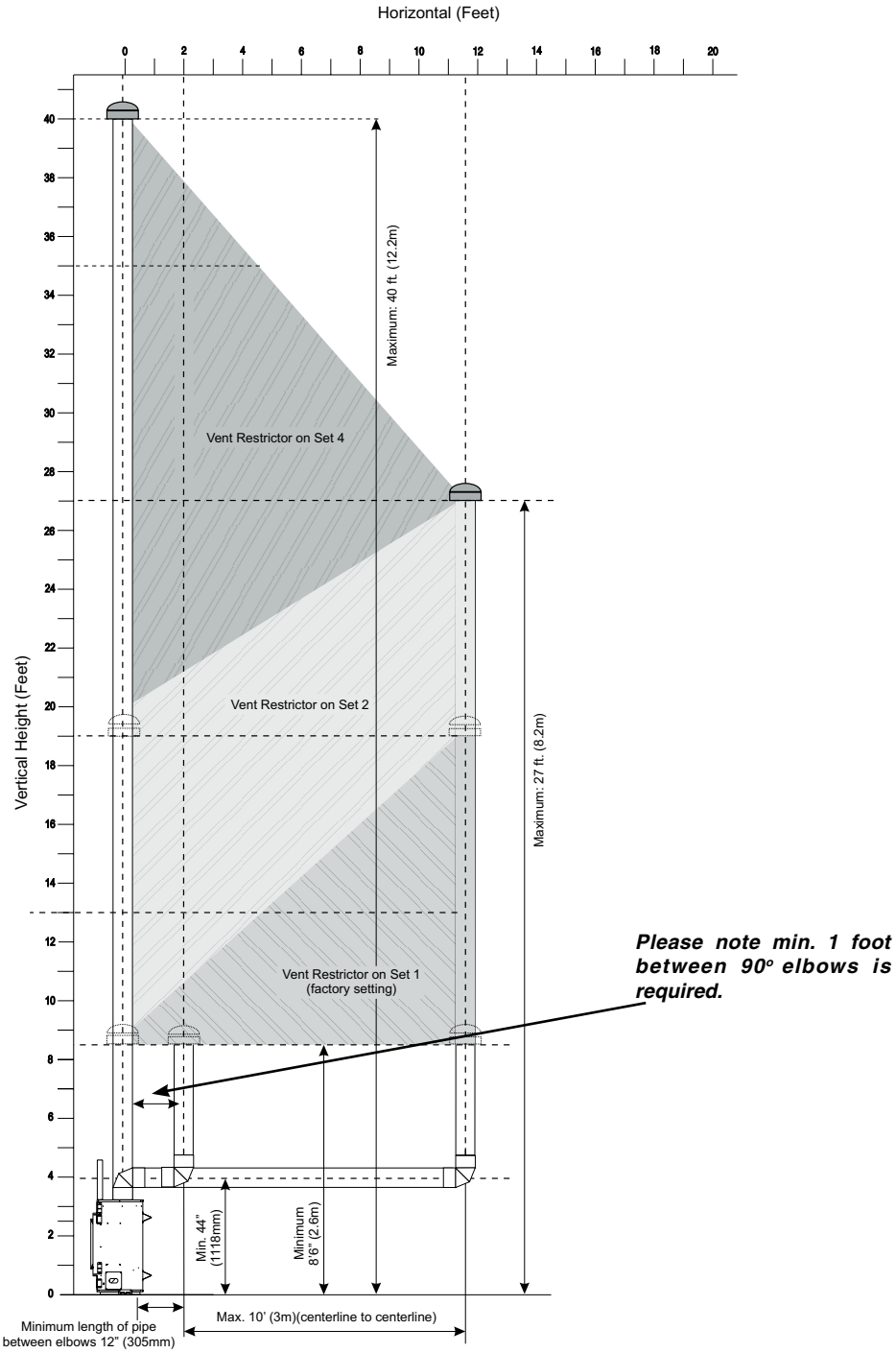
VENTING ARRANGEMENTS
ALLOWABLE VERTICAL TERMINATIONS FOR HZ54E-NG10

The shaded area in the diagram shows all allowable combinations of straight vertical and offset to vertical terminations, using two 90° elbows, with **Rigid Pipe Venting Systems** for Natural Gas. Two 45° elbows equal to one 90° elbow. Maximum of four 45° elbows allowed.

Vent must be supported at offsets.

- Firestops are required at each floor level and whenever passing through a wall.
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Refer to the "Vent Restrictor Position" section for details on how to change the vent restrictor from the factory setting of Set 1 to Set 2 or Set 4 if required.

Note: Must use optional flue adaptor when using Rigid Pipe (Part # 770-994)

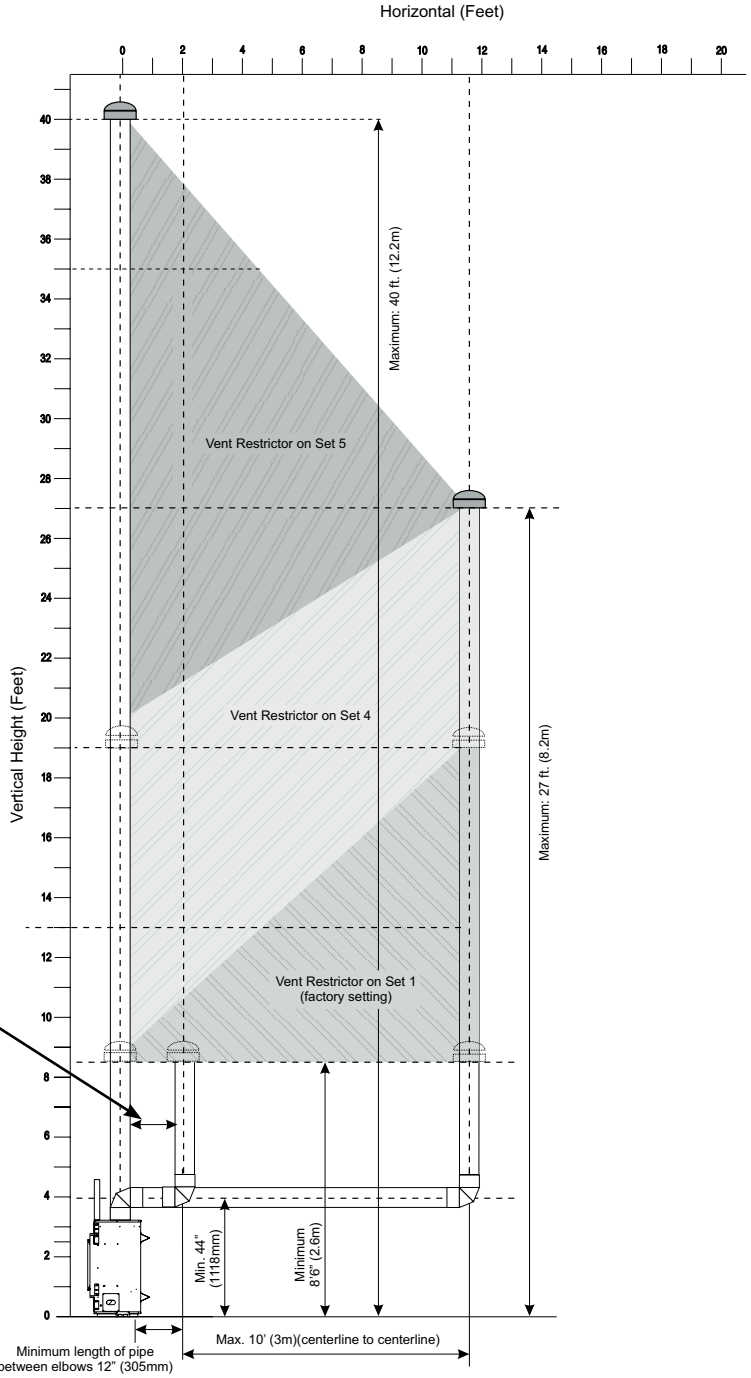


VENTING ARRANGEMENTS
ALLOWABLE VERTICAL TERMINATIONS FOR HZ54E-LP

The shaded area in the diagram shows all allowable combinations of straight vertical and offset to vertical terminations, using two 90º elbows, with **Rigid Pipe Venting Systems** for Propane. Two 45º elbows equal to one 90º elbow. Maximum of four 45º elbows allowed.

- Vent must be supported at offsets.
- Firestops are required at each floor level and whenever passing through a wall.
- Maintain clearances to combustibles as listed in the "Clearances" section.
- Refer to the "Vent Restrictor Position" section for details on how to change the vent restrictor from the factory setting of Set 1 to Set 4 or Set 5 if required.

Note: Must use optional flue adaptor when using Rigid Pipe (Part # 770-994)



Please note min. 1 foot between 90º elbows is required.

Unit Installation with Horizontal Termination *(Rigid Vent Systems)*

A top clearance of 3"(76mm) and side & bottom clearance of 2"(51mm) must be maintained; except when passing through a wall, ceiling, or at the termination where the use of a firestop or wall thimble reduces the required clearance to 1-1/2" (38mm). We recommend framing a 11"(279mm) x 11"(279mm) (inside dimensions) hole to give structural rigidity for mounting the termination.

Install the vent system according to the manufacturer's instructions included with the components.

1) Set the unit in its desired location. Check to determine if wall studs or roof rafters are in the way when the venting system is attached. If this is the case, you may want to adjust the location of the unit. Rough in the gas preferably on the right side of the unit.

2) Direct Vent pipe and fittings are designed with special twist-lock connections to connect the venting system to the appliance flue outlet. A twist-lock appliance adaptor is required.

3) In conjunction with the Simpson Direct Vent Pro system, install the adaptor after the unit is set in its desired location. Put a bead of Mill-Pac inside the outer section of the adapter and on the inner collar. Slip the adapter over the existing inner and outer flue collar. Fasten to the outer collar only with the 3 supplied screws (drilling pilot holes will make this easier).

4) Level the fireplace and fasten it to the framing using nails or screws through the top and side nailing strips.

5) Assemble the desired combination of pipe and elbows to the appliance adaptor and twist-lock for a solid connection.

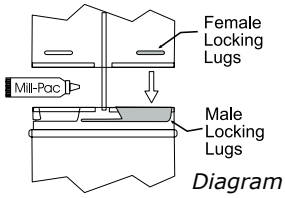


Diagram 1

Note: For best results and optimum performance with each approved venting system, it is highly recommended to apply "Mill-Pac" sealant (supplied) to every inner pipe connection. Failure to do so may result in drafting or performance issues not covered under warranty.

Horizontal runs of vent must be supported every 3 feet (0.9 meters). Wall straps are available for this purpose.

6) Mark the wall for a 11" x 11" (279mm x 279mm) square hole. The center of the square hole should line up with the center-line of the horizontal pipe. Cut and frame the 11 inch (279mm) square hole in the exterior wall where the vent will be terminated. See diagram 2 for center line requirements.

If the wall being penetrated is constructed of non-combustible material, i.e. masonry block or concrete, an 8" (203mm) diameter hole is acceptable.

Note:

a) The horizontal run of vent must be level, or have a 1/4 inch rise for every 1 foot of run towards the termination. Never allow the vent to run downward. This could cause high temperatures and may present the possibility of a fire.

b) The location of the horizontal vent termination on an exterior wall must meet all local and national building codes, and must not be blocked or obstructed. See "Exterior Vent Termination Locations" section for more details.

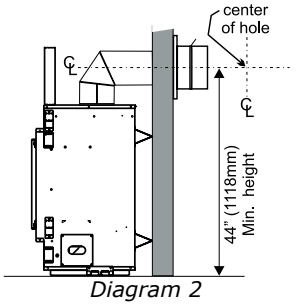


Diagram 2

c) **Snorkel Terminations:**
For installations requiring a vertical rise on the exterior of the building, 14-inch and 36-inch tall Snorkel Terminations are available, as well as the standard Riser Vent. Follow the same installation procedures as used for standard Horizontal Termination. NEVER install the snorkel upside down.

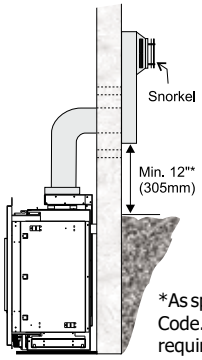
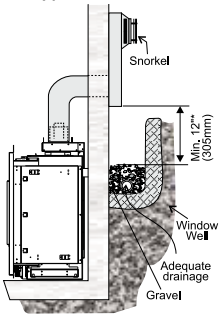


Diagram 3

*As specified in CSA B149.1 Installation Code. Local codes or regulations may require different clearances.

Below Grade Snorkel Installation
If the snorkel termination must be installed below grade, i.e. basement application, proper drainage must be provided to prevent water from entering the snorkel termination. See diagram 4. Do not attempt to enclose the snorkel within the wall or any other type of enclosure.

Diagram 4



7) Ensure that the pipe clearances to combustible materials are maintained (Diagram 5). Install the termination cap.

Note: When installing a appliance where the exterior of the house will be or is sided with vinyl siding, a vinyl siding standoff or furring strips must be used to ensure that the termination cap is not recessed into the siding. If there is no siding installed - install the vinyl siding standoff or furring strips to the exterior of the home where the termination cap is to be installed. Install the cap on the vinyl siding standoff or furring strips. J-channel can then be installed around the vinyl siding standoff, then the siding can be installed. If vinyl siding is already installed - line up the vinyl siding standoff or furring strips on the vinyl siding where the termination cap is to be installed, trace out the vinyl siding standoff or furring strips, then cut out and remove the vinyl. Install the standoff to the exterior of the home. Install the termination cap on the vinyl siding standoff or furring strips.

The four wood screws provided should be replaced with appropriate fasteners for stucco, brick, concrete, or other types of sidings.

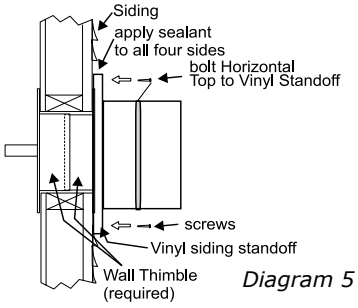


Diagram 5

8) Before connecting the horizontal run of vent pipe to the vent termination, slide the Wall Thimble over the vent pipe. The wall thimble is required for all horizontal terminations.

9) Slide the appliance and vent assembly towards the wall carefully inserting the vent pipe into the vent cap assembly. It is important that the vent pipe extends into the vent cap sufficient distance so as to result in a minimum pipe overlap of 1-1/4 inches (32mm). Secure the connection between the vent pipe and the vent cap.

10) Install wall thimble in the center of the 11" (279mm) square and attach with wood screws (Diagram 6).

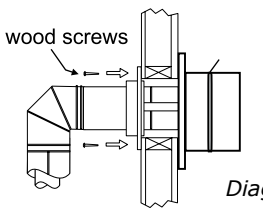


Diagram 6