## P90-10 Gas Fireplace

(1023mm

Model	P90-NG10	P90-LP10	
Fuel Type	Natural Gas	Propane	
Minimum Supply Pressure	5" W.C. (1.25 kPa)	12" W.C. (3.00 kPa)	
Manifold Pressure - High	3.8" W.C. (0.95 kPa)	11" W.C. (2.74 kPa)	
Manifold Pressure - Low	1.1" W.C. (0.27 kPa)	2.9" W.C. (0.82 kPa)	
Orifice Size	#34 DMS	#51 DMS - 0-2000ft #52 DMS - 2000-4500ft	
Minimum Input Altitude 0-2000 ft. (0-610m)	18,200 BTU/h	17,950 BTU/h (5.26 kW)	
Minimum Input Altitude 2000-4500 ft. (610-1372m)	(5.42 kW)	15,500 BTU/h (4.54 kW)	
Maximum Input Altitude 0-2000 ft. (0-610m)	35,000 BTU/h	35,000 BTU/h (10.26 kW)	
Maximum Input Altitude 2000-4500 ft. (610-1372m)	(10.26 kW)	31,000 BTU/h (9.08 kW)	
Vent Sizing	4" Inner / 6 5/8" Outer	4" Inner / 6 5/8" Outer	

Approved Venting Systems			
Flex Vent Systems: FPI AstroCap™ Flex Vent			
Rigid Pipe Vent Systems:	Simpson Direct Vent Pro® American Metal Products® Amerivent Direct Security Secure Vent® Selkirk Direct-Temp™ Metal-Fab® Sure Seal		







# Please refer to Exterior Vent Terminations for additional guidelines on vent locations.







#### P90 Gas Fireplace

#### Framing and Finishing

- 1. Frame in the enclosure for the unit with framing material.
- 2. For exterior walls, insulate the enclosure to the same degree as the rest of the house, apply vapor barrier and drywall, as per local installation codes. (Do not insulate the fireplace itself.)
- The top of the fireplace opening must not be closer than 44-1/4" (1124mm) to the ceiling.
- 4. You must maintain proper clearances from the vent to combustible materials (Top Right).
- 5. Use metal studs for framing where the minimum clearance from the vent to combustible material cannot be maintained.
- 6. Install the side nailing strips, top facing support, and the two standoffs before the unit is slipped into position.
- 7. Finishing the P90 requires the use of a non-combustible facing as detailed below.

#### **Clearance Requirements**



NOTE: The minimum floor clearance must be maintained from the top surface of the carpeting, tile, etc.

See Hearth Requirements in the manual.

Side Wall Clearance	6-1/2" (165mm)		
Horizontal Vent Clearances	5		
Тор	2-1/2" (64mm)		
Side	1-1/2" (38mm)		
Bottom	1-1/2" (38mm)		
	, , , , , , , , , , , , , , , , , , ,		
Vertical Vent Clearances	1-1/4" (32mm)		

#### Alcove Clearances\*\*:

Max. Depth	36"	(914mm)
Min. Width	72"	(1829mm)
Min. Height	72"	(1829mm)

\* see mantle clearance instructions

(Refer to the "Combustible Mantels" section).

WARNING:
Fire hazard is an extreme risk
if these clearances are not
adhered to.

## WARNING

Failure to maintain required clearances is a major cause of chimney related fires. Installation of this fireplace must comply with these clearances.

To accommodate varying thicknesses and finishes of hearth materials, we have increased the overall height of the appliance by a further 1 1/8". This increase is added with the inclusion of two stand-offs at the bottom of the unit, below the outer box, taking the overall height of the framing dimensions from 45-1/4" up to 46-3/8".

In the event that you should choose to use thinner materials to finish the hearth, you can omit the stand-offs provided for raising the unit. However, we recommend that you leave the framing dimensions as they are in the manual and alter only the facing requirement by reducing it by the same distance that you have lowered the unit.

Insert the 2 unit base stand-offs underneath the unit as shown in the diagram below. Space the stand-offs centrally, approximately 2 or 2-1/2 feet apart. Ensure that the unit is not unstable.



**Note:** After unit is framed in, steel studs can be used inside of the wood framing to attach the noncombustible material. An optional steel stud framing kit is available for this purpose–see manual for details. If choosing not to purchase this kit, steel studs can be used in place–to attach the non combustible material. Use the optional steel stud kit instructions as a guide.



### **OPTIONAL FRAMING KIT**

An optional framing kit is available to facilitate easier installation of the noncombustible board.

The optional framing kit is to be installed within the existing wood framing. The framed opening is 46-1/2" wide x 45-1/4" high or 46-3/8" high if using the base standoffs and 21-1/2" deep. See instruction manual for complete details.



Fold out side nailing strips from the side of the unit to  $90^{\circ}\,\text{as}$  shown below.

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

 Attach both vertical studs and secure using pointed wood screws to penetrate steel studs to secure. There are 6 screws which are not provided. (2 at bottom, 2 at top and 2 on sides). (Corner framing shown in diagram)



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

4. Slide the unit into position. Hook up gas, venting and electrical prior to installing the remaining steel studs.

5. Secure the top horizontal steel stud (792-023) as shown with 2 screws per side.

6.Secure the wide horizontal stud (792-021) with 2 screws per side...

**7**. Secure 2 thin vertical studs (*792-033*) on either side of the appliance wit 4 screws each. Above screws are provided.



Adjust nailing strips

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





Framing kit dimensions



### **Facing Requirement**

This fireplace requires a non-combustible facing material extending from the framing header and sides.

The flanges on the front face of the fireplace are for a facing thickness of 3-3/8" (86mm).



Please note that all vertical measurements are taken from the base of the unit **excluding** risers or bottom stand-offs.



### Facing Over 3-3/8" (86mm) Thick

If the facing material is over 3-3/8" (86mm) thick (example: brick or river rock), install the facing around the perimeter of the face. You may wish to make a face template as shown on the diagram.





### **Combustible Mantels**

Because of the extreme heat this fireplace emits, the mantel clearances are critical. Combustible mantel clearances from top of the louvers are shown in the diagram below. Mantel may be installed anywhere in the shaded area or higher.

- \*\*\* Measured from the base of the Unit.
- Note: If desired a non-combustible mantel may be installed at a lower height.
- Note: Ensure the paint that is used on the mantel and the facing is "heat resistant" or the paint may discolour.









## **Snorkel Terminations**

#### **Snorkel Terminations:**

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



#### 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. Refer to Rigid Pipe Installation instructions for details. Do not attempt to enclose the Snorkel within the wall, or any other type of enclosure.



#### FPI Direct Vent System (Flex) Horizontal Terminations Only

This venting system, in combination with the P90 Direct Vent Gas Fireplace, have been tested and listed as a direct vent heater system by Warnock Hersey. The location of the termination cap must conform to the requirements in the Vent Terminal Locations diagram, see manual.

FPI Direct Vent (Flex) System Termination Kits include all the parts needed to install the P90 using a flexible vent.

FPI Kit #	Length	Contains:		
<b>#946_</b> 515	⁴ Feet	<ol> <li>6-5/8" flexible liner (Kit length)</li> <li>4" flexible liner (Kit length)</li> <li>spring spacers (3.</li> <li>thimble (2.</li> <li>AstroCap termination cap (1.</li> </ol>		
# <sup>946_516</sup>	<sup>10</sup> Feet	<ul> <li>6. screws (12.</li> <li>7. tube of Mill Pac (1.</li> <li>8. plated screws (8.</li> <li>9. S.S. screws #8 x 1-1/2" drill point, (4.</li> </ul>		

Notes:

- 1. Liner sections should be continuous without any joints or seams.
- 2. Only Flex pipe purchased from Excalibur may be used for Flex installations.
- 3. Horizontal sections must be supported every 3 feet.

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#### P90 Gas Fireplace

#### **Rigid Pipe Venting** Horizontal or Vertical Terminations



If required by the external termination location the listed alternate termination caps may be used.

## Venting Arrangements - Vertical Terminations Rigid Pipe System

(Propane & Natural Gas)

The P90 is approved for a maximum 40 ft. straight vertical, with **Rigid Pipe** vent systems for Propane and Natural Gas.

The lightly shaded area, *mailed*, in the diagram shows allowable venting configurations with a maximum two 45° elbows.

The darker shaded area, *w*, in the diagram shows allowable venting configurations using a maximum of two 90° elbows.

- Vent must be supported at offsets.
- Horizontal sections must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.
- Maintain clearances to combustible materials.
- Minimum of 1' pipe section between and elbows.
- Note: Must use optional rigid pipe adapter when using Rigid Pipe (Part # 510-994..



## Vertical Venting with Two (2.90° Elbows

Two 45° elbows = One 90° elbow

Option	v	н	V + V1	Maximum total pipe: length,
A)	0' Min.	2' Max.	1' Max.	of all sections, must not exceed 30 feet.
B)	1' Min.	4' Max.	2' Max.	Total horizontal sections
C)	2' Min.	5' Max.	3' Max.	must not exceed 8 feet. Minimum of 1 foot between
D)	3' Min.	6' Max.	4' Max.	90° elbows is required.
E)	4' Min.	7' Max.	5' Max.	
F)	5' Min.	8' Max.	6' Max.	



## Vertical Venting with Three (3. 90° Elbows

Two 45° elbows = One 90° elbow

Option	v	H + H1	V+ V1	Maximum total pipe: length, of all sections,
A)	6" Min.	2' Max.	3' Min.	must not exceed 30 feet. Total horizontal sections
B)	1' Min.	2' Max.	3' Min.	must not exceed 7 feet.
C)	2' Min.	3' Max.	4' Min.	Minimum of 1 foot between 90° elbows is
D)	3' Min.	4' Max.	6' Min.	required.
E)	4' Min.	5' Max.	7' Min.	
F)	5' Min.	6' Max.	8' Min.	
G)	6' Min.	7' Max.	9' Min.	
H)	7' Min.	8' Max.	10' Min.	



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#### **Venting Arrangements - Horizontal Terminations**

The P90 is approved for a maximum 20 ft. straight horizontal, with **Rigid Pipe** vent systems for Propane and Natural Gas.

The lightly shaded area, *w*, in the diagram shows allowable venting configurations of either Flex or Rigid piping in sizes **4**" **x 6-5/8**" using a maximum of one 90° elbow.

The darker shaded area, *in the diagram shows allowable venting configurations of Rigid piping in sizes* **5**" **x 8**" using a maximum of one 90° elbow.

# Note: Must use optional rigid pipe adapter (Part # 510-994. when using Rigid Pipe.

# Note: All Rigid Pipe sizes 5" x 8" must use FPI increaser starter collar (Part # 946-605. at the beginning of the vent run.

- Maintain clearances to combustibles.
- Horizontal vent must be supported every 3 feet.
- Firestops are required at each floor level and whenever passing through a wall.

A vent guard may be required as per local codes, refer to Exterior Vent Termination Locations.

Note: FPI Direct Vent System (Flex) is only approved for horizontal terminations.







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### Horizontal Venting with Two (2. 90° Elbows Two 45° elbows = One 90° elbow

Option	v	H+ H1	Maximum total pipe: length, of
A)	6" Min.	2' Max.	all sections, must not exceed 30 feet.
B)	1' Min.	3' Max.	Total horizontal sections must
C)	2' Min.	4' Max.	not exceed 8 feet. Minimum of 1 foot between
D)	3' Min.	5' Max.	90° elbows is required.
E)	4' Min.	6' Max.	
F)	5' Min.	7' Max.	
G)	6' Min.	8' Max.	



### Horizontal Venting with Two (2. 90° Elbows Two 45° elbows = One 90° elbow

Option	v	н	V + V1	H + H1	Maximum total pipe:
A)	6" Min.	1' Max.	1'6" Min.	2' Max.	length, of all sections, must not exceed 30
B)	1' Min.	2' Max.	3' Min.	3' Max.	feet.
C)	2' Min.	2' Max.	5' Min.	4' Max.	Total horizontal sections must not
D)	3' Min.	2' Max.	7' Min.	5' Max.	exceed 9 feet. Minimum of 1 foot
E)	4' Min.	3' Max.	9' Min.	6' Max.	between 90° elbows
F)	5' Min.	4' Max.	10' Min.	7' Max.	is required.
G)	6' Min.	5' Max.	11' Min.	8' Max.	
H)	7' Min.	6' Max.	12' Min.	9' Max.	

