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**VERTICAL TERMINATION KITS FOR  
SECURE FLEX® VERTICAL VENTING**

**INSTALLATION INSTRUCTIONS FOR SECURE FLEX® VERTICAL TERMINATION KITS  
(CATALOG NO. 56L74 AND 56L75) USED WITH DIRECT-VENT GAS FIREPLACES**

**KIT CONTENTS**

Shipping and Packaging List			
Item No.	Component Description	Quantity in Kit for Catalog No.	
		56L74	56L75
1	Vertical Termination	1	1
2	Storm Collar	1	1
3	Roof Flashing	1	1
4	Section of Flex to Rigid Co-Axial Vent Pipe Adaptor	1	1
5	Section of Rigid Co-Axial Vent Pipe	----	1
6	Support Collar*	1	1
7	L-Brackets*	2	2
8	Nuts and Bolts * (L-Brackets)	2 sets	2 sets
9	Nuts and Bolts * (Support Collar)	1 sets	1 sets
10	Self-Tapping Screws	3	3
11	Flex Adaptor	1	1
12	Installation Instructions	1	1
13	Universal Support Strap	1	1

\*These components are packaged together and are part of the roof support collar assembly.

**Table 1**

Vertical Termination Kit Application		
Cat. No.	Model No.	Roof Pitch
56L74	SV4.5VFTKA	Flat to 6/12
56L75	SV4.5VFTKB	6/12 to 12/12

**Table 2**

Kits / Components Ordered Separately		
Cat. No.	Model No.	Roof Pitch
60L10	SF-18	Flex Vent Kit: Flex Length - 18' of Compressed Flex
H2247	SV4.5VF	Ceiling Firestop/Spacer, 10 Pack
H2246	SV4.5HF	Wall Firestop/Spacer, 10 Pack

**Table 3**

**GENERAL INFORMATION**

These vertical termination kits are used when vertically venting IHP direct-vent gas fireplaces. The pitch of the roof determines the usage of the vertical termination kits. See **Table 2**.

**Table 3** contains a list of venting kits/components that must be ordered separately for this installation.

If you encounter any problems, need clarification of these instructions or are not qualified to properly install this kit, contact your local distributor or dealer.

Read this instruction sheet in its entirety before beginning the installation.

**ALL WARNINGS AND PRECAUTIONS IN THE INSTALLATION AND OPERATION MANUAL PROVIDED WITH THE APPLIANCE APPLY TO THESE INSTRUCTIONS.**

**These kits must be installed by a qualified service technician or other qualified agency according to the manufacturer's instructions, all codes and requirements of the authority having jurisdiction in the USA or Canada. If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life. The qualified agency performing this work assumes responsibility for this installation.**

**All vent system connections/joints must be properly sealed using only the MILL-PAC BLACK (700°F) HIGH TEMPERATURE SEALANT, catalog number 10K81. Failure to properly seal the vent system could allow carbon monoxide leakage resulting in injury or death.**

**NOTES:**

- a - These instructions should be used as a guideline and do not supersede local codes in any way. Install vent according to local codes, these instructions, and the current National Fuel Gas Code (ANSI-Z223.1) in the USA or the current standards of CAN/CGA-B149.1 and -B149.2 in Canada.
- b - These instructions must be used in conjunction with the fireplace installation instructions to complete the entire fireplace installation.
- c - Some installations require the use of a vent restrictor (packaged with the fireplace) in the flue outlet of the fireplace. Check the fireplace installation instructions before proceeding with the installation.

## General guidelines for vertical flex vent installations

Refer to the fireplace installation instructions for approved vertical venting configurations. Rigid **Secure Vent**® (SV4.5) direct-vent components are shown in these configurations; however, these **Secure Flex**® vent kits may also be used. All restrictions, clearances and allowances that pertain to the rigid piping apply to the flexible venting also.

### Expanding Secure Flex and Secure Flex Joining Restrictions -

Flexible vent pipe is packaged and shipped in its contracted state. When installing flexible vent pipe, its length may be expanded to approximately twice its contracted size. There is enough flex pipe supplied in **Secure Flex** vent kit (catalog no. 60L10) for a vertical venting application of 40' total vent length. The flex pipe may be cut to any length to suit a particular application; however, **the flex sections must not be joined together to extend a vent run**. After expanding the vent, check that the vent's spring spacers are spaced every 12" or less.

### Adding Secure Flex® to the End of a Secure Vent® (Rigid Vent) Run -

**Secure Flex** may be added to the end of a vent run made up of rigid **Secure Vent** (SV4.5) vent sections. The flex adaptor (87L00) and section of flex to rigid co-axial pipe must be used when connecting the flexible pipe to the rigid. All the restrictions such as venting length, height, routing, horizontal to vertical ratio requirements or clearance considerations as detailed in the fireplace installation instructions for rigid vent must be adhered to for the flexible vent.

### Minimum Vent Slope and Support Spacing for Horizontal Sections -

If horizontal sections of the flex vent pipe runs exist, they should be sloped upward a minimum of 1/4" per foot (20 mm per meter) of horizontal vent in the direction away from the fireplace. In addition, they must be supported using metal straps or the vent support collars provided in the flex vent kit (catalog number 60L10), spaced no greater than 3' (0.914 meters) apart, and tightened sufficiently only to support the vent, not to compress it in any degree.

### Support of Vertical Sections -

Support vertical sections of the venting system using the vent support collar(s) provided in the flex vent kit (catalog number 60L10). Ensure that all vertical sections of the venting system are straight. See **Figure 8**.

### Attic Insulation Clearances -

Maintain proper clearances any time vent pipe must pass through insulated spaces. Use insulation shield when vent pipe passes through any insulation.

### Using 45 degree elbows -

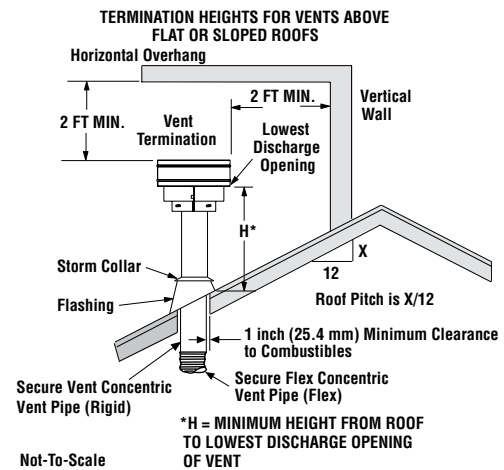
Two 45 degree elbows may be used in place of one 90 degree elbow. The same rise to run ratios, as shown in the venting figures in the fireplace installation instructions, for 90 elbows, must be followed if 45 degree elbows are used.

## ! WARNING

**UNDER NO CIRCUMSTANCES MAY SEPARATE SECTIONS OF CONCENTRIC FLEXIBLE VENT PIPE BE JOINED TOGETHER.**

**MAINTAIN A MINIMUM 1" (25 MM) CLEARANCE TO COMBUSTIBLE MATERIALS FOR ALL VERTICAL VENT ELEMENTS. CLEARANCES FOR ALL HORIZONTAL VENT ELEMENTS ARE 3" (76 MM) ON TOP, 1" (25 MM) ON SIDES AND 1" (25 MM) ON THE BOTTOM.**

## Vertical Vent Termination Clearances



The vent / air intake termination clearances above the high side of an angled roof are as shown in the following chart:

Termination Heights For Vents Above Flat Or Sloped Roofs Ref. NFPA 54 / ANSI Z223.1		
Roof Pitch	*H (ft)	*H (m)
Flat to 6/12	1.0	0.3
6/12 to 7/12	1.25	0.38
7/12 to 8/12	1.5	0.46
8/12 to 9/12	2.0	0.61
9/12 to 10/12	2.5	0.76
10/12 to 11/12	3.25	0.99
11/12 to 12/12	4.0	1.22

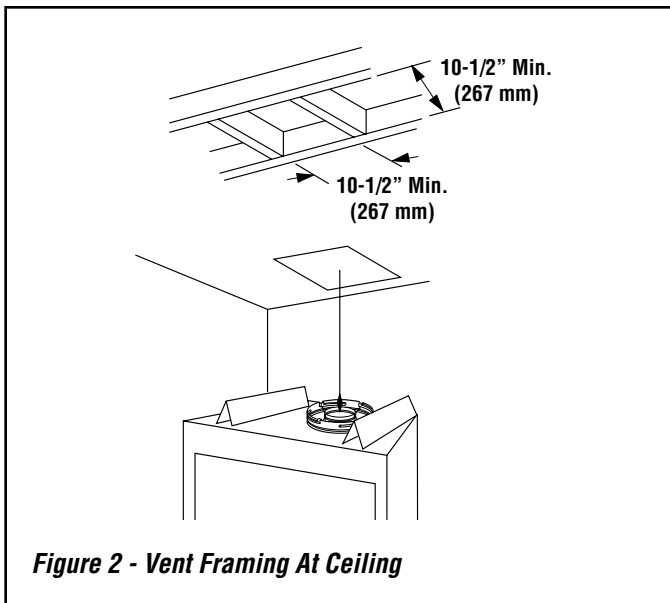
**Figure 1**

## INSTALLATION INSTRUCTIONS

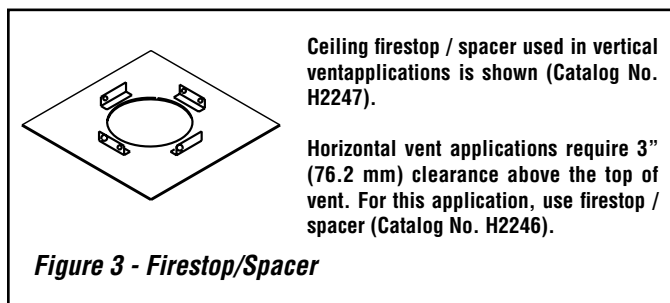
**Step 1.** Select the vent opening location in the roof, ceiling(s), and wall(s). When designing the venting system, give special consideration to the following two points:

- a - The vent length and configuration restrictions indicated in the vertical venting section of the fireplace installation instructions.
- b - The minimum distance between the highest point where the pipe penetrates the roof and the lowest discharge opening of the termination as given in **Figure 1**.

**Step 2.** Use a plumb line from the ceiling above the appliance to locate center of the vertical run. Cut and frame an opening, 10-1/2" x 10-1/2" (267mm x 267mm) inside dimensions, about this center mark (**Figure 2**). Frame all vent holes with 2" x 4" or larger lumber. Install a firestop/spacer (catalog no. 96K87), shown in **Figure 3**, at ceiling joists. If there is living space above the ceiling level, the firestop/ spacer must be installed on the bottom side of the ceiling as shown in **Figure 8**. If attic space is above the ceiling, the firestop/ spacer must be installed on the top side of the joist.

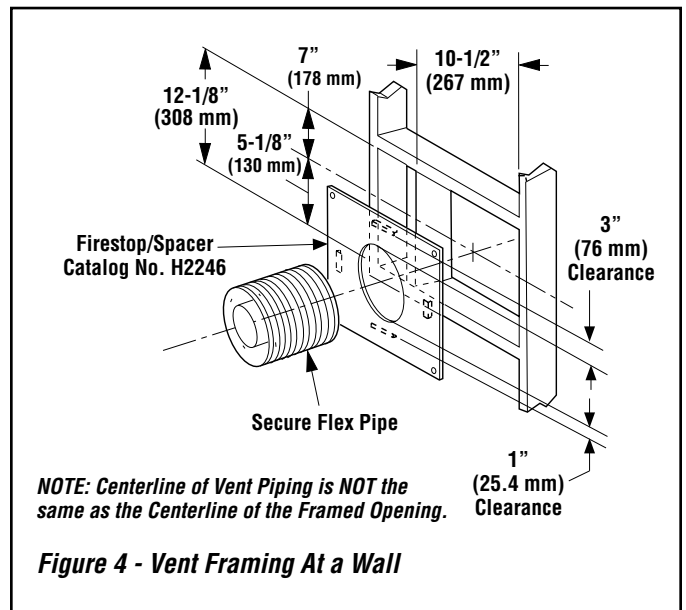


**Figure 2 - Vent Framing At Ceiling**



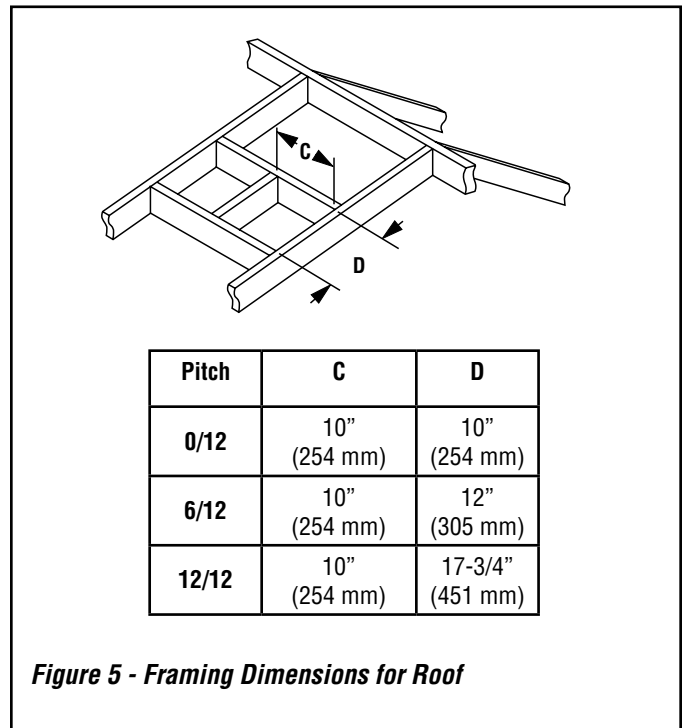
**Figure 3 - Firestop/Spacer**

**Step 3.** If the vent is to penetrate an interior wall, locate the center of the vent on the interior wall. Cut and frame an opening, 10-1/2" x 12-1/8" (267 mm x 308mm) inside dimensions, about this center as shown in **Figure 4**. Frame all vent holes with 2" x 4" or larger lumber. Install firestop/spacer (catalog no. H2246) at framing surface with 3" (76 mm) vent to framing clearance in the up position as shown in **Figure 4**.



**Figure 4 - Vent Framing At a Wall**

**Step 4.** Identify location for vent at the roof. Cut and/or frame opening according to the dimensions shown in the Roof Framing Chart. Frame all vent holes with 2" x 4" or larger lumber. See **Figure 5**.

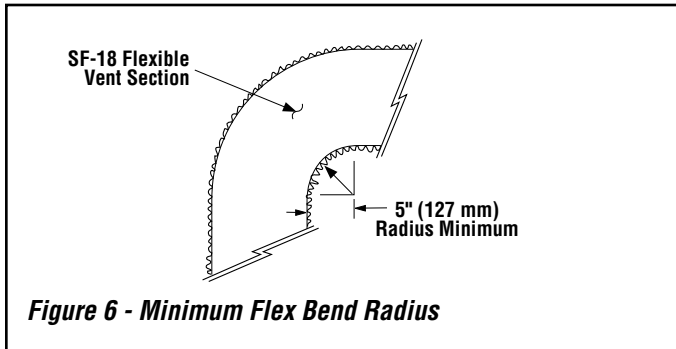


**Figure 5 - Framing Dimensions for Roof**

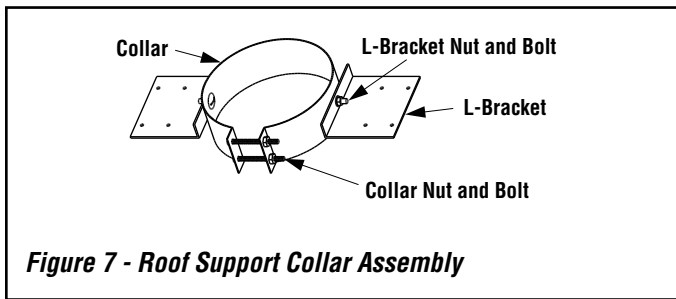
**Step 5.** Expand the inner and outer flex pipes (supplied in kit catalog no. 60L10, ordered separately) to the desired length as planned in step 1. Install the spring spacers (provided with the flex vent pipe kit) along the entire length of the outside wall of the 4-1/2" (114 mm) flex pipe, spaced every 3' (914 mm) apart and where ever there is a turn in the vent run.

**Step 6.** Slide the outer 7-1/2" (190.5 mm) flex pipe over the inner pipe and spring assembly.

**Step 7.** Feed the flex vent pipes through the framed openings. In most situations, it is easier to feed the pipes from the roof down to the fireplace. Take care not to puncture the flexible vent pipes. Ensure that the flex vent is properly routed to provide the required clearance. Do Not allow the flexible vent to bend in a radius tighter than 5" (127 mm). Refer to **Figure 6**.



**Step 8.** Assemble the roof support collar as shown in **Figure 7** (All the parts are kit-provided).



**Step 9.** From the roof, attach the L-brackets of the roof support collar to the roof using eight 2-1/2" (63.5 mm) long nails or eight 1-1/2" (31.8 mm) long wood screws so that a minimum of 1" (25.4 mm) clearance between the vent and roof combustibles will be maintained. See **Figure 8**.

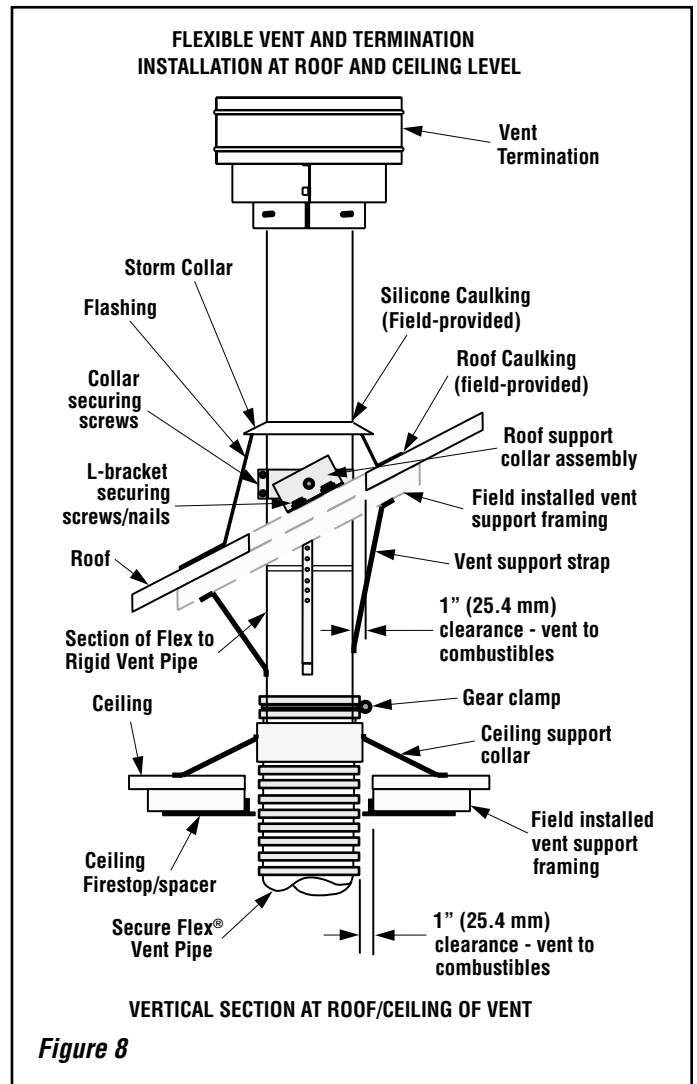
**Step 10.** Slide the rigid co-axial vent pipe through the roof support collar as shown in **Figure 8**. Temporarily attach the kit-provided vent termination to the end of the vent above the roof. Position the vent / termination assembly to obtain the minimum height "H" shown in **Figure 1**. Tighten the fastener on the roof support collar to secure the vent / termination assembly. Remove the termination.

**Step 11.** From the attic, nail or screw the four termination support straps to the roof framing. Ensure that the straps are pulled tight and that the vent is vertical. See **Figure 8**.

**Step 12.** From the roof, install the roof flashing (kit-provided) and secure to the roof with roofing nails. Seal the joint between the roof and flashing with roof caulking (field-provided). For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles.

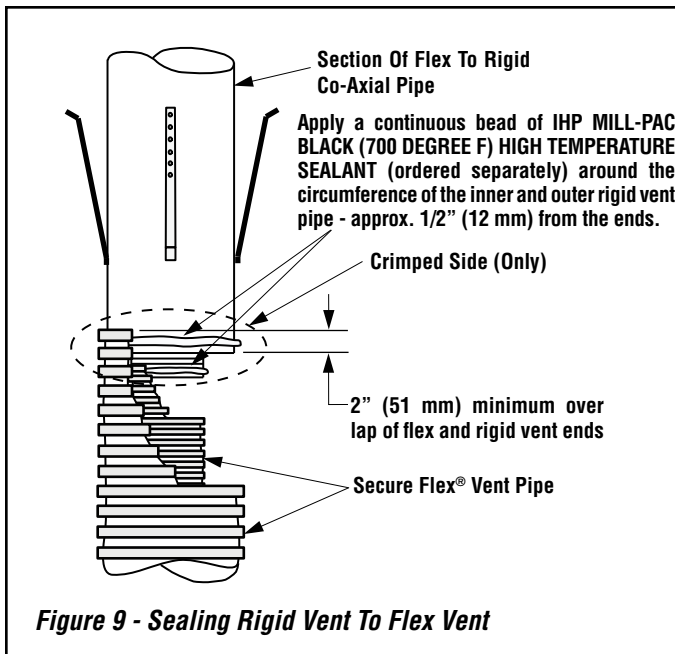
**Step 13.** Install the storm collar (kit-provided) around the vent. Seal the collar-to-vent joint with silicone caulking (field-provided). See **Figure 8**.

**Step 14.** Install the termination. Align the dimpled end of the termination over the previously installed vent pipe section or appliance collar, adjusting the radial alignment until the four locking dimples of the termination are aligned with the inlets of the four incline channels of the last vent pipe section or collar. See **Figure 8**.



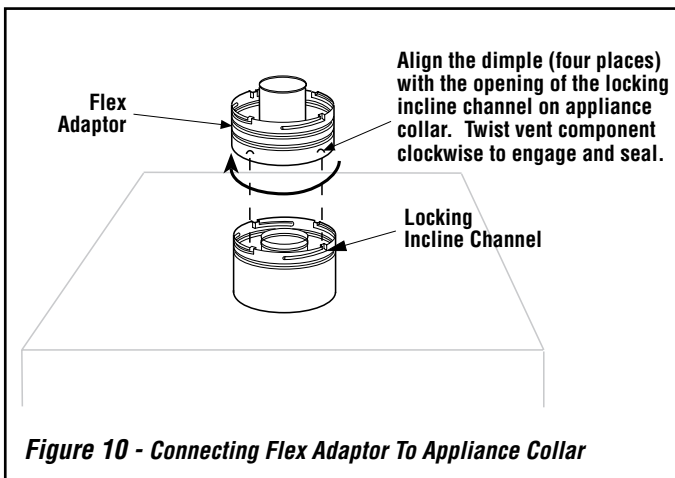
**Step 15.** From the attic, apply a continuous bead of **MILL-PAC BLACK (700°F) HIGH TEMPERATURE SEALANT** around the bottom end of the 4-1/2" (114 mm) inner rigid vent pipe. Connect the 4-1/2" (114 mm) flex vent to the 4-1/2" (114 mm) rigid vent and secure with the small gear clamp provided in the flex vent kit. See **Figure 9**. Ensure that the flex vent overlaps the rigid pipe for at least 2" (51 mm).

**Step 16.** Apply a continuous bead of **MILL-PAC BLACK (700°F) HIGH TEMPERATURE SEALANT** around the bottom end of the 7-1/2" (190.5 mm) outer rigid vent pipe. Connect the 7-1/2" (190.5 mm) flex vent to the 7-1/2" (190.5 mm) rigid vent and secure with the large gear clamp provided in the flex vent kit. See **Figure 9**. Ensure that the flex vent overlaps the rigid pipe for at least 2" (51 mm).



### Step 17. Installation of Secure Flex® Adaptor

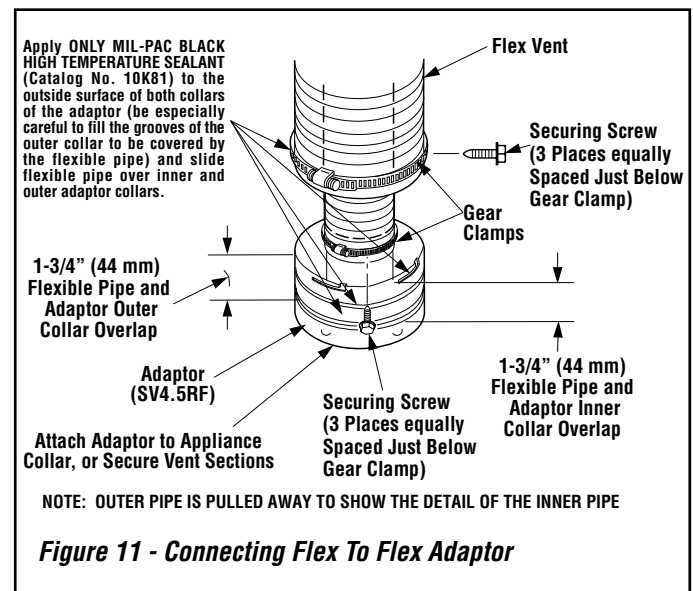
**Secure Flex** comes with an adaptor (catalog no. 87L00) that can be fitted to the appliance collar or the inclined channel end of the last **Secure Vent**® section (SV4.5) in a rigid system. The adaptor is installed in exactly same fashion as any other **Secure Vent** section. Align the dimpled end of the adaptor over the previously installed section or appliance collar, adjusting the radial alignment until the four locking dimples of the adaptor are aligned with the inlets of the four incline channels of the last vent section or collar. Push on the adaptor until it fully engages, then twist the adaptor clockwise running the dimples down and along the incline channels until they seat at the end of the channels. See **Figure 10**.



### Step 18. Attach the Flexible Vent to the Adaptor (See parts A and B below and **Figure 11**) -

#### A. Install the Inner Flex Pipe -

1. Install the small gear clamp loosely around the inner flexible vent pipe, push it back out of the way.
2. Apply a bead of **Mill-Pac Black (700°F) high temperature sealant - Catalog No. 10K81** to the inner adaptor collar, approximately 1/2" from the end.
3. Pull and extend the inner flexible vent pipe.
4. Slide the inner flex pipe over the adaptor collar. Overlap the flexible vent pipe with the adaptor collar 1-3/4", ensuring that flexible vent pipe is free from damage or tears.
5. Slide the gear clamp down to approximately 3/4" from the end of the flexible pipe. Tighten the clamp fully to secure the flexible pipe to the inner adaptor collar.
6. Install **three screws 120 degrees apart** through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.



#### B. Install the Outer Flex Pipe -

1. Install the large gear clamp loosely around the outer flexible vent pipe, push it back out of the way.
2. Apply a bead of **Mill-Pac Black (700°F) high temperature sealant - Catalog No. 10K81** to the outer adaptor collar; to the grooves of the collar which extend approximately 1" from the end and to the flat surface, approximately 1-3/8" from the end.
3. Pull and extend the outer flexible vent pipe.
4. Slide the outer flex pipe over the adaptor collar. Overlap the flexible vent pipe with the adaptor collar 1-3/4", ensuring that the flexible vent pipe is free from damage or tears.
5. Slide the gear clamp down to approximately 3/4" from the end of the flexible pipe. Tighten the clamp fully to secure the flexible pipe to the outer adaptor collar.
6. Install **three screws 120 degrees apart** through the flexible vent pipe and into the adaptor collar just below the gear clamp to provide additional security to the connection.

**Step 19.** Continue with the fireplace installation by following the fireplace installation instructions.

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE.

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IHP reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products. Consult your local distributor for fireplace code information.



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