



## **TECHNICAL BULLETIN**

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### **THE VENTINOX® DIRECT CONNECT SYSTEM**

The VENTINOX® Direct Connect System is designed to lead flue gases from a stove or insert through the damper area and smoke chamber to the bottom of the chimney flue as required by NFPA 211. The system is intended for installation with inserts, room heaters, and fireplace stoves where the appliance instruction manual references a direct connect system.

ProTech Systems, Inc. recommends that this product be installed by an experienced professional familiar with the operation and maintenance of heating appliances and chimneys.

We advise the installer to contact local building and fire officials concerning any installation restrictions and / or inspection requirements.

**PLEASE READ ALL INSTRUCTIONS before  
installing any VENTINOX® SYSTEM.**

**SAVE THESE INSTRUCTIONS.**

**COMPLETE VENTINOX® CHIMNEY LINING  
SYSTEMS ARE ALSO AVAILABLE FROM  
PROTECH SYSTEMS INC.**

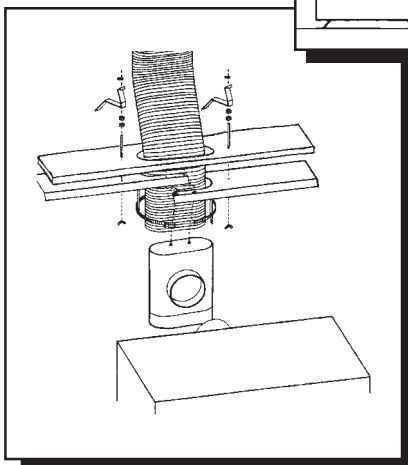
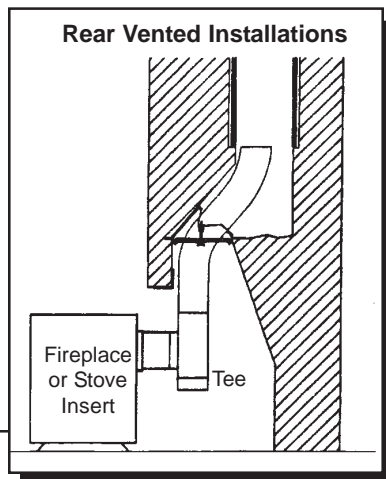


## DIRECT CONNECT SYSTEM KITS AND COMPONENTS

Please consult the heating appliance manufacturer's instructions for the recommended connector size. In the absence of such a recommendation, follow NFPA guidelines which specify that the effective area of a connector for a single appliance should not be less than the area of the appliance's flue collar.

VENTINOX® fireplace installation kits are designed to vent flue gases from a stove or insert through the damper area and smoke chamber to the bottom of the chimney flue as required by NFPA 211. These UL listed kits are engineered to withstand the severe operating conditions found in wood burning applications. The ovalized connectors are made from titanium stabilized steel, the same material used in aircraft afterburners. Connectors are manufactured from a single strip of stainless steel, using a continuous weld and spiral corrugation technique. VENTINOX® connectors are tough and highly durable, yet they can easily be bent from side to side or front to back.

## VENTINOX® KITS FOR REAR VENTED STOVES AND FIREPLACE INSERTS



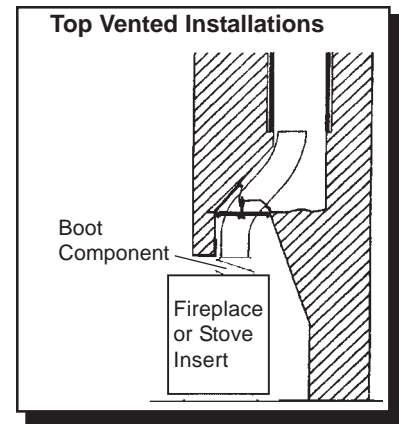
### RVK-6 Installation Kit

For rear vented hearth sitting stoves with 6" flue collars  
Includes: 7" x 48" Oval Flex Connector; Connector Sealing Kit with installation hardware; 7" Oval Tee with 6" inlet flange and Tee Cap

### RVK-8 Installation Kit

For rear vented hearth sitting stoves with 8" flue collars.  
Includes: 9" x 48" Oval Flex Connector; Connector Sealing Kit with installation hardware; 9" Oval Tee with 8" inlet flange and Tee Cap

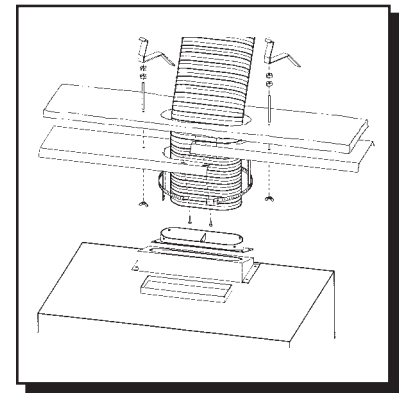
## VENTINOX® KITS FOR TOP VENTED STOVES AND FIREPLACE INSERTS



### TVK-RE-8 Installation Kit

For inserts with rectangular flue outlets requiring the equivalent to the area of a 5", 6" or 7" round flue.

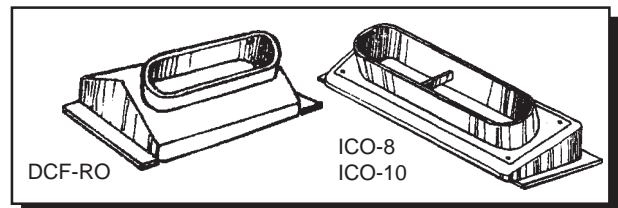
Includes: 8" x 48" Oval Flex Connector; Connector Sealing Kit with installation hardware; and an ICO-8 Adjustable Insert Boot with Draw Down Kit.



### TVK-RE-10 Installation Kit

For inserts with rectangular flue outlets requiring the equivalent to the area of a 7" or 8" round flue

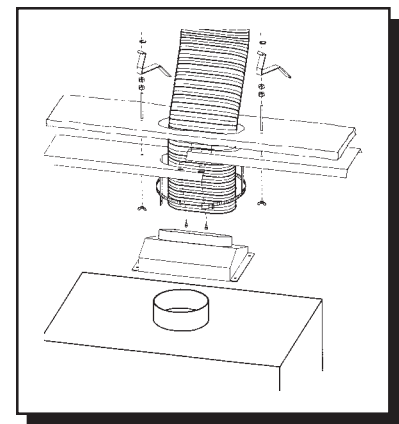
Includes: 10" x 48" Oval Flex Connector; Connector Sealing Kit with installation hardware; and an ICO-10 Adjustable Insert Boot with Draw Down Kit.



### TVK-RO Installation Kit

For inserts with 5" to 8" round flue outlets

Includes: 8" x 48" Oval Flex Connector; Connector Sealing Kit with installation hardware; and an DCF-RO Oval Insert Boot with Draw Down Kit.



## VENTINOX® KITS FOR TOP VENTED STOVES AND FIREPLACE INSERTS

continued

### RTA-6 Installation Kit

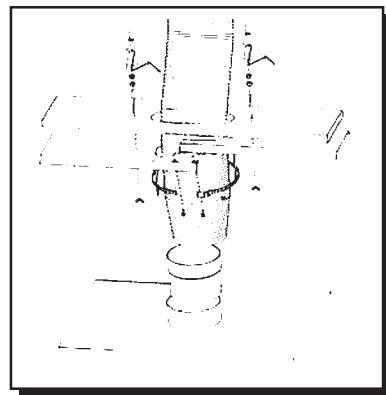
For top venting stoves and fireplace inserts with 6" round outlets

Includes: 6" x 48" Round to Oval Flex Connector; Connector Sealing Kit with installation hardware; and a 6" Sleeve

### RTA 8 Installation Kit

For top venting stoves and fireplace inserts with 8" round outlets

Includes: 8" x 48" Round to Oval Flex Connector; Connector Sealing Kit with installation hardware; and an 8" Sleeve



## VENTINOX® DIRECT CONNECT SYSTEM

### INDIVIDUAL PARTS DESCRIPTION

**OVAL FLEX CONNECTORS:** Factory ovalized to a narrow depth (4.2") to fit through fireplace dampers and make offset bends within the smoke chamber. Used with Connector Sealing Kit and oval components (described below) for a top-to-bottom lining system. Made of VENTINOX® HighFlex liner.



**ROUND TO OVAL FLEX CONNECTORS:** One end (6") is round. The remaining length is ovalized. Used with Sleeve, Elbow, or Tee it makes a simple connection system for top or rear vented stoves & fireplace inserts. Made of VENTINOX® HiFlex liner.

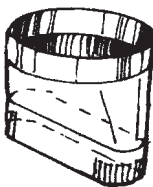
Size*	Description	Width	Depth	Cross Sect.	Part #
6 x 57	Strght Oval	7.20	4.20	24.20	STO-6x57
6 x 48	Strght Oval	7.20	4.20	24.20	STO-6x48
7 x 57	Strght Oval	8.90	4.20	32.20	STO-7x57
7 x 48	Strght Oval	8.90	4.20	32.20	STO-7x48
8 x 57	Strght Oval	10.20	4.20	37.20	STO-8x57
8 x 48	Strght Oval	10.20	4.20	37.20	STO-8x48
9 x 48	Strght Oval	12.50	4.20	43.00	STO-9x48
10 x 57	Strght Oval	13.20	4.20	50.00	STO-10x57
10 x 48	Strght Oval	13.20	4.20	50.00	STO-10x48
6 x 57	Round-Oval	7.20	4.20	24.20	RTO-6x57
6 x 48	Round-Oval	7.20	4.20	24.20	RTO-6x48
7 x 57	Round-Oval	8.90	4.20	32.20	RTO-7x57
8 x 57	Round-Oval	10.20	4.20	37.20	RTO-8x57
8 x 48	Round-Oval	10.20	4.20	37.20	RTO-8x48
10 x 57	Round-Oval	13.20	4.20	50.00	RTO-10x57

\* First Dimension is connector diameter before ovalization. Second Dimension is connector length.

### ROUND-TO-OVAL LINER ADAPTER

Makes driplless connection between round liner and Oval Flex Connector

6"R to 7"O	Round-Oval	VAD-67
6"R to 8"O	Round-Oval	VAD-68
7"R to 8"O	Round-Oval	VAD-78
8"R to 8"O	Round-Oval	VAD-88
8"R to 9"O	Round-Oval	VAD-89
8"R to 10"O	Round-Oval	VAD-810
9"R to 10"O	Round-Oval	VAD-910
10"R to 10"O	Round-Oval	VAD-1010



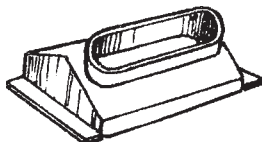
### OVAL INSERT BOOT

Make direct connection between inserts with 5" to 8" round flue collars and 8" Oval Flex Connectors.

Top flange is angled back toward damper. Low profile clears low lintels.

Made from 11 gauge carbon steel

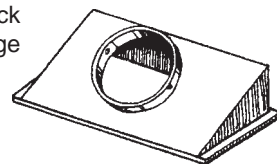
Oval Insert Boot **DCF-RO**



### ROUND INSERT BOOT

Make direct connection between inserts with rectangular or round flue collars and 8" or 6" round liner. Top flange fits over liner for driplless connection and is angled back toward the flue. Made from 11 gauge carbon steel.

6" Round Insert Boot	DCF-R6
8" Round Insert Boot	DCF-R8



### 6" or 8" ADJUSTABLE ROUND TO ROUND

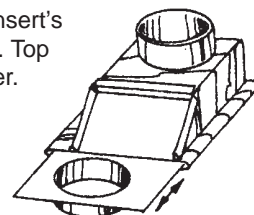
**FIREPLACE ADAPTER** (inserts with 6" or 8" flue outlets)

2 piece adapter allows adjustment of insert's front to back position within the firebox. Top outlet fits over 6" or 8" VENTINOX® liner.

Bottom flange fits into outlet of insert.

Features cleanout door.

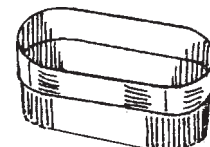
6" Adjustable Adapter	FA-6
8" Adjustable Adapter	FA-8



### OVAL SLEEVE

Makes a driplless connection between 2 pieces of Flex Connector

5" Sleeve	VCP-OV-5
6" Sleeve	VCP-OV-6
7" Sleeve	VCP-OV-7
8" Sleeve	VCP-OV-8
9" Sleeve	VCP-OV-9
10" Sleeve	VCP-OV-10



### OVAL ADJUSTABLE INSERT BOOT

Bottom plate fits over rectangular top flue outlet (with opening up to 6" x 16.5") and is drawn tightly to the insert with the included draw

down kit. Top plate fits over oval

Flex Connector to form driplless

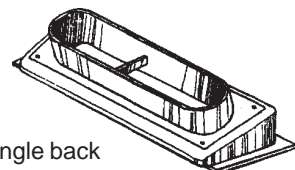
connection. Use for straight-up

connection or turn 180 degrees to angle back

toward damper or to clear low lintel. Made

from 11 gauge carbon steel.

8" Insert Boot (fits 8" Flex Connectors)	ICO-8
10" Insert Boot (fits 10" Flex Connectors)	ICO-10



### OVAL TEE

Connects Oval Flex Connector and rear-vented hearth-sitting

stove. 7" size fits over 7" Oval Flex Connector

and has 6" inlet flange that fits into a 6" flue outlet

(or reducer). 9" size fits over 9" Oval Flex

Connector and has an 8" inlet flange. Includes

Tee Cap.

7" Oval Tee with 6" Inlet	VTE-OV7 X 6R
9" Oval Tee with 8" Inlet	VTE-OV9 X 8R

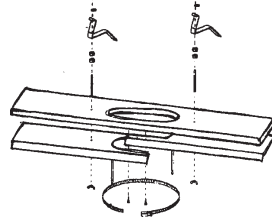


## VENTINOX® DIRECT CONNECT SYSTEM INDIVIDUAL PARTS DESCRIPTION continued

### CONNECTOR SEALING KIT

Sealing plates fit underneath the damper frame and seal the area around the Oval Flex Connector. The kit includes 2 plates which are cut at the ends to fit the damper frame, an insulation panel, support bars with hardware, connector and wing nuts for easy removal. Fits up to 48" wide dampers.

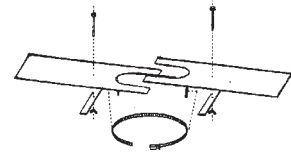
Connector Sealing Kit (VCK)



### DAMPER SEALING KIT

Designed to rest on top of the fireplace damper frame and seal the area around the Oval Flex Connector. Includes 2 panels, cross-bars to tighten against the damper frame for a secure fit and wing nuts for easy removal. Panels fit damper frames up to 49" wide and are designed to be cut to the same dimensions as the damper plate.

Damper Sealing Kit (VSK)



## INSTALLATION AND MAINTENANCE INSTRUCTIONS

1. Inspect and Repair the Fireplace and Chimney Inspect and clean the chimney flue, smoke chamber, smoke shelf and fireplace thoroughly. Any cracks or missing mortar joints must be repaired to bring the chimney in compliance with local building codes before installing the Direct Connect System.

Disassemble and remove the damper closing mechanism and the damper plate.

### IMPORTANT NOTES

- The damper frame should be at least 4.5" wide so that the Oval Flex Connector can fit through it as supplied.
- There must be a clear passageway from the damper frame to the bottom of the flue. Offsets in the smoke chamber to the rear, left or right can be accommodated by bending the Flex Connector accordingly.
- The cross sectional area of the chimney flue must not be greater than three times the cross sectional area of the appliances flue collar, or the chimney must be lined from the flue outlet to assure proper venting. Refer to NFPA 211 for details.
- In some cases, the use of VENTINOX Installation Kits and/or components may result in downsizing. Contact the appliance manufacturer to assure that these products may be used to connect the appliance.
- The appliance must be installed with proper clearances to combustibles. See appliance manufacturer's instructions and applicable building codes for details.

### 2. PREPARING THE FLEX CONNECTOR

Determine the future position of the appliance's flue collar within the fireplace. Simulate the ideal path from this point to the bottom of the flue with a measuring tape. The connector's path and length are correct when smoke is led into the flue directly and does not come in contact with the smoke chamber. Cut the Flex Connector with a hack saw, if needed.

**CAUTION: WHEN HANDLING  
FLEX CONNECTORS AND  
COMPONENTS, WEAR  
GLOVES. EDGES CAN BE  
EXTREMELY SHARP.**

### 3. CONNECTING A TOP VENTED STOVE

Slide the selected component over the Flex Connector and move the appliance under it. Pull the component on top of the appliance and secure it with screws or Draw Down Kit supplied with each component.

When using the Oval Adjustable Insert Boot (ICO), feed the hook (part of the Draw Down Kit) through the hole in the fixed cross bar of the ICO's top plate. Position the ICO over the heater's flue outlet. Reach through the inside of the heater to position a cross bar onto the threaded shank of the hook and across the heater's flue outlet. Draw the entire assembly together with a wing nut.

When using an Oval Insert Boot (DCF-RO) or a Round Insert Boot (DCF-R6,8), position the component over the heater's flue outlet. Reach through the inside of the heater to position two cross bars on top of the component's flange and to the left and right of the flue outlet's center. Drop one bolt through each crossbar, then position a second cross bar onto the bolt and across the heater's flue outlet. Draw each assembly together with a wing nut.

### 4. CONNECTING A REAR VENTED STOVE

Slide the Oval Tee onto the connector and secure with pop rivets. Attach the Tee Cap. Position the heater within the fireplace. If necessary, use stove pipe between the heater and the Oval Tee's outlet for the final connection.

## MAINTENANCE AND INSPECTION

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney and connector should be inspected at least once every 2 months during the heating season to determine if creosote buildup has occurred. We recommend that the VENTINOX® Direct Connect System be inspected annually by an experienced professional who works with VENTINOX® products on a regular basis.

Periodically remove one of the connector sealing plates to inspect the smoke shelf, smoke chamber, and the flue of the fireplace. If creosote has accumulated, it should be

removed to reduce the risk of a chimney fire. After inspection, install the plate according to the original instructions.

## CHIMNEY FIRE

Should a fire occur in a chimney equipped with a Ventinox Direct Connect System, the Fire Department should be notified immediately.

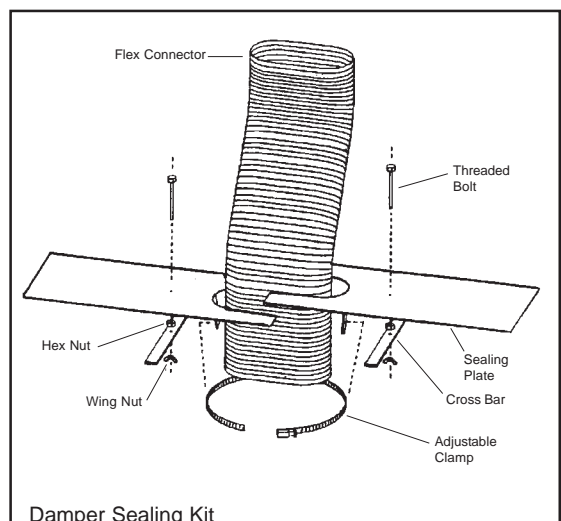
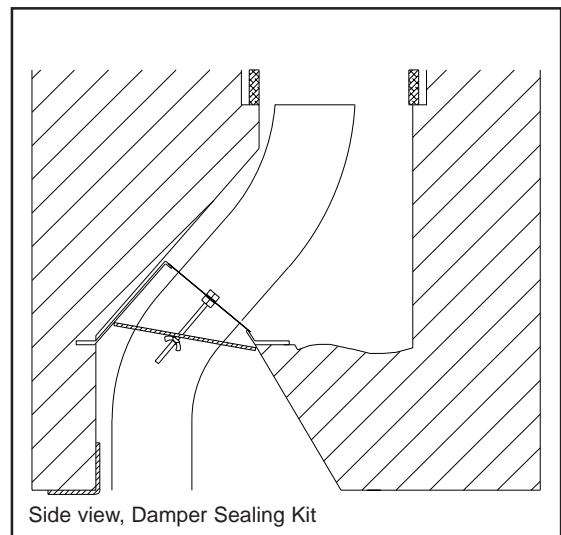
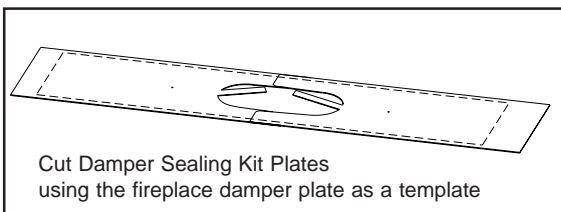
Fires are catastrophic events for any chimney structure. After a chimney fire, regardless of the degree of severity, the VENTINOX® Direct Connect System and the chimney should be thoroughly cleaned and inspected by an experienced professional familiar with the operation and maintenance of heating appliances and chimneys. If damage has occurred to the Connect System or chimney structure, it must be repaired before the chimney is put back in use. Chimney fires can and should be prevented through proper appliance use and maintenance.

## INSTALLATION INSTRUCTIONS FOR THE VENTINOX® DAMPER SEALING KIT (VSK)

For alternate sealing method, see instructions for Connector Sealing Kit (VCK)

The Damper Sealing Kit (VSK) plates rest directly on the top of the damper frame to replace the fireplace damper plate.

1. Cut the sealing plates to the exact dimensions of the damper plate.
2. Insert the long bolts into each half of the sealing plates and secure them with the hex nuts provided.
3. Place one of the plates on the damper frame and fold down the center tab.
4. Lift the Flex connector into position and install the second sealing plate with the center tab bent down.
5. Slide the cross bars onto the bolts and tighten them against the bottom of the damper frame with the wing nuts provided.
6. Adjust the position of the Flex Connector, then use the clamp to tighten the tabs against the connector.
7. Seal voids around the sealing plates or connect with furnace cement.



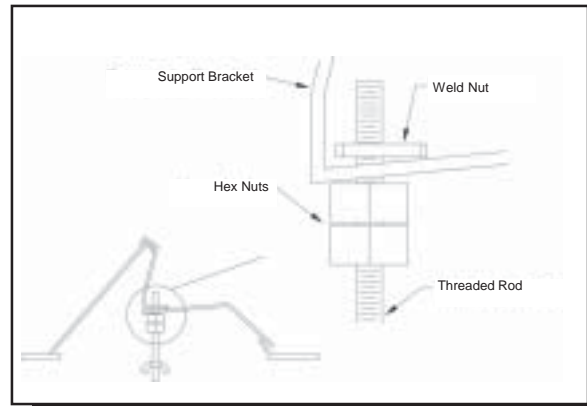
## INSTALLATION INSTRUCTIONS FOR THE VENTINOX® CONNECTOR SEALING KIT (VCK)

The Connector Sealing Kit (VCK) is installed underneath the damper frame.

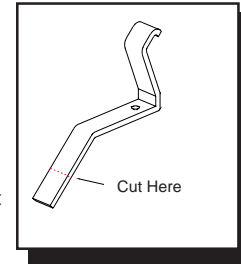
For alternate sealing method, see instructions for Damper Sealing Kit (VSK)

After positioning Flex Connectors properly, assemble and position the Support Bracket.

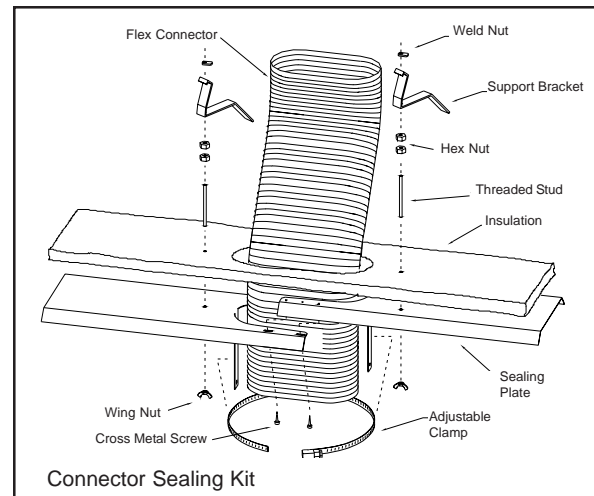
1. Thread two hex nuts to ½ inch from end of each threaded rod.
2. Tighten the nuts against each other.
3. Insert the rod into the Support Bracket and thread the weld nut onto the rod loosely. The rod should still move freely within the Support Bracket.
4. Place the brackets on top of the damper frame, aligning them roughly with the holes in the connector sealing plates.
5. Seat the brackets securely. If necessary, remove some mortar from the top of the damper frame. If too long, trim the Support Brackets as shown.
6. Measure and cut the sealing plates to fit underneath the damper frame. Usually, the plates need trimming at the ends only.
7. Enlarge the hole in the fiberglass blanket so the connector fits through and leave the blanket about ½ inch longer than the plates. Slide the fitted blanket into the connector.
8. Bend both sealing plate's center tabs downward. Install the sealing plate featuring round holes for sheet metal screws first.
9. Lift this plate and insulation into position on one side of the connector, feeding the threaded rod through the blanket and plate.
10. Turn the rod until it tightens against the Support Bracket. Secure the plate with a nut.
11. Install the plate with slotted holes next, then use the provided sheet metal screws to fasten the plates against each other.
12. Seal any remaining openings with insulation. Make any minor adjustments to the Flex Connector, then tighten the adjustable clamp around the center tabs and connector.



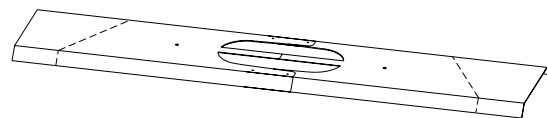
Side view of damper frame with Support Bracket.



Cut the Support Brackets, if necessary, to fit narrower dampers.



Trim the Connector Sealing Plates



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