

FOR USE WITH CHIMNEY MADE BEFORE MARCH 1, 2021

# DURATECH CANADA (DTC)

Factory-built CHIMNEY  
5", 6", 7", 8" & 10" dia.  
TYPE HT

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## INSTALLATION

## AND

## OPERATION

## INSTRUCTIONS

**Read these instructions and keep them for future reference**

Listed:

CAN/ULC-S629 (6", 7", 8" only)

CAN /ULC-S604

UL-103HT



Intertek



# DuraVent®

[www.duravent.com](http://www.duravent.com)

## RECOMMENDATIONS

### Clearance

The clearances stated in this guide are minimum requirements: if more space is available, use it. Minimum clearances mean leaving unobstructed air space. Do not fill these spaces with any material whatsoever, especially not insulating material. If you insulate your attic later, be sure to maintain the necessary clearance.

### Inspection

Contact local building or fire officials about restrictions, installation inspection and permit that may be required in your area.

### Replacement Parts

If a component of your chimney system is damaged it must be replaced by an identical one from Duravent.

3. Never overfire your stove. If any part of the stove or stove pipe is glowing red, then you are overfiring. Immediately close the stove's dampers until the system cools. The high temperature caused by overfiring can permanently damage the stove and stove pipe and may overheat nearby combustible walls and furniture.
4. Install the stove and stove pipe as described in the installation instructions accompanying the stove. Be certain to maintain the required clearances to combustible construction.
5. Keep your flue gases between 300°F and 50°F. This will maximize efficiency while minimizing condensation and creosote formation. Do not fill your stove with wood and allow it to smoulder for 8 to 10 hours. This condition produces large amounts of creosote in the chimney.
6. Do not burn sea driftwood or treated wood. These combustibles are highly corrosive to all types of stainless steel.

## APPLICATIONS

### WOOD AND COAL STOVES

DURATECH CANADA (DTC) chimney has been designed for use with wood, gas, oil and coal burning appliances in residential, commercial and industrial applications.

**DURATECH CANADA (DTC) has been listed to ULC-S629 , 2100 F in diameter 6,7 and 8 inches for wood/coal application . Note that for interior enclosed installation, premium shield are required around the chimney. Refer to specific installation section for proper installation.**

**DURATECH CANADA (DTC) is also designed for use with gas or oil fired heating appliances such as furnace, hot water heaters and other appliances, as per ULC-S604 standards in diameter 5 to 10 inches. In these types of installations, no premium shields are required even where the chimney is enclosed.**

If you are planning to install a wood stove, we recommend that you:

1. Choose the right size stove. Do not buy one larger than you need.
2. Connect only one appliance to a chimney.

### FACTORY BUILT FIREPLACES

In Canada, DTC is suitable for use with closed or opened fireplaces certified for use with ULC-S604 listed chimney or specifically with DTC. When doing so please refer to the fireplace installation instruction to install the chimney.

**NOTE:** Premium shields are not required for factory-built fireplaces unless the appliance manufacturer states otherwise.

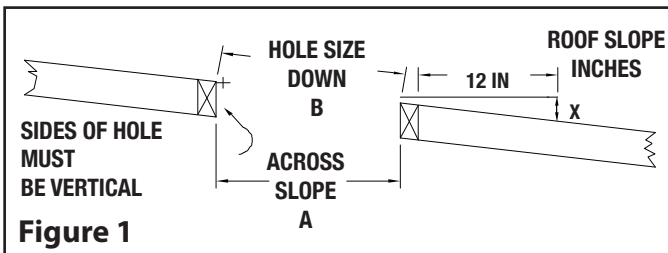
# KEEP YOUR CHIMNEY CLEAN

## CHIMNEY OPERATION AND MAINTENANCE

Wood stoves can quickly create large deposits of creosote in the chimney. Some wood stoves can create enough creosote in two weeks to cause a chimney fire. When using a wood stove, we recommend that you:

1. Initially, inspect the chimney system weekly. You will learn how often it will be necessary to clean your chimney.
2. The chimney should be inspected at least once every 2 months during the heating season to determine if a creosote or soot build-up has occurred: if creosote or soot has accumulated, it should be removed to reduce the risk of chimney fire.
3. Have your chimney cleaned by a qualified chimney sweep. If you want to clean your chimney yourself: clean your chimney using plastic, wood, or stainless steel brushes. Do not use a brush that will scratch the stainless steel interior of your chimney.
4. Do not expect chemical chimney cleaners to keep your chimney clean. Their use does not negate the necessity of periodically inspecting and cleaning your chimney.

# ROOF OPENING CHART



# SIZING CHART

CHIMNEY-SIZE	5"	6"	7"	8"	10"
OUTSIDE-DIAMETER	7"	8"	9"	10"	12"
<b>FRAMING DIMENSION REQUIRED</b>					
Base-Support (DTC-BS)	12-1/8"	---	---	---	--
Reduced Clear. Support (DTC-RCS)	--	10 1/8"	11 1/8"	12 1/8"	--
Cathedral support (DTC-RCSC)	--	12-1/8"	14-3/8"	14-3/8"	--
Square support (DTC-CS)	--	12-1/8"	14-3/8"	14-3/8"	14-3/8"
Wall Thimble (DTC-WTI)	11-3/8"	12-3/8"	13-3/8"	14-3/8"	16-3/8"
Finish support (DTC-FSC)	--	12-1/8"	14-3/8"	14-3/8"	--
Firestop (DTC-FS)	11-3/8"	12-3/8"	13-3/8"	14-3/8"	16-3/8"
Attic Radiation Shield (DTC-ISIA)	11-3/8"	12-3/8"	13-3/8"	14-3/8"	16-3/8"
<b>MAX. LENGTH HEIGHT SUPPORTED **</b>					
Base Support (DTC-BS)	32'	--	--	--	--
Tee Support (DTC-TS)	63'	63'	55'	48'	39'
Roof Support (DTC-RS)	42'	34'	27'	24'	20'
Radiation Shield Connector Support (DTC-FRSCS)	--	30'	24'	21'	--
Cathedral Support (DTC-RCSC)	--	75'	65'	59'	--
Square Support (DTC-CS)	--	60'	50'	45'	35'
Reduced Clearance Support (DTC-RC)	--	60'	50'	45'	--
Adj. Square Support (DTC-CSA)	27'	22'	--	--	--
Finish Support (DTC-FSC)	--	75'	65'	59'	--
Offset/Wall Support (DTC-RE-SU1)	--	28'	24'	20'	14'
Insulated Tee (DTC-TSS) *	63'	63'	55'	50'	50'
Clearance To Combustibles	2"	2"	2"	2"	2"

**Table 1**

\* When installed on a concrete footing.

\*\* **NOTE:** If greater height is required, use additional roof supports at intervals not exceeding 30'

CHIMNEY SIZE	5"		6"		7"		8"		10"	
ROOF SLOPE	ROOF HOLE SIZE									
x/12	A	B	A	B	A	B	A	B	A	B
0	11-3/8	11-3/8	12-3/8	12-3/8	13-3/8	13-3/8	14-3/8	14-3/8	16-3/8	16-3/8
2/12	11-3/8	11-1/2	12-3/8	12-1/2	13-3/8	13-1/2	14-3/8	14-9/16	16-3/8	16-19/32
4/12	11-3/8	12	12-3/8	13	13-3/8	14-3/32	14-3/8	15-5/32	16-3/8	17-1/4
6/12	11-3/8	12-11/16	12-3/8	13-13/16	13-3/8	14-15/16	14-3/8	16-3/32	16-3/8	18-5/16
8/12	11-3/8	13-11/16	12-3/8	14-7/8	13-3/8	16-1/16	14-3/8	17-1/4	16-3/8	19-11/16
10/12	11-3/8	14-13/16	12-3/8	16-1/8	13-3/8	17-7/16	14-3/8	18-23/32	16-3/8	21-5/16
12/12	11-3/8	16-1/16	12-3/8	17-1/2	13-3/8	18-29/32	14-3/8	20-11/32	16-3/8	23-5/32

**Table 2 - Refer to Figure 1**

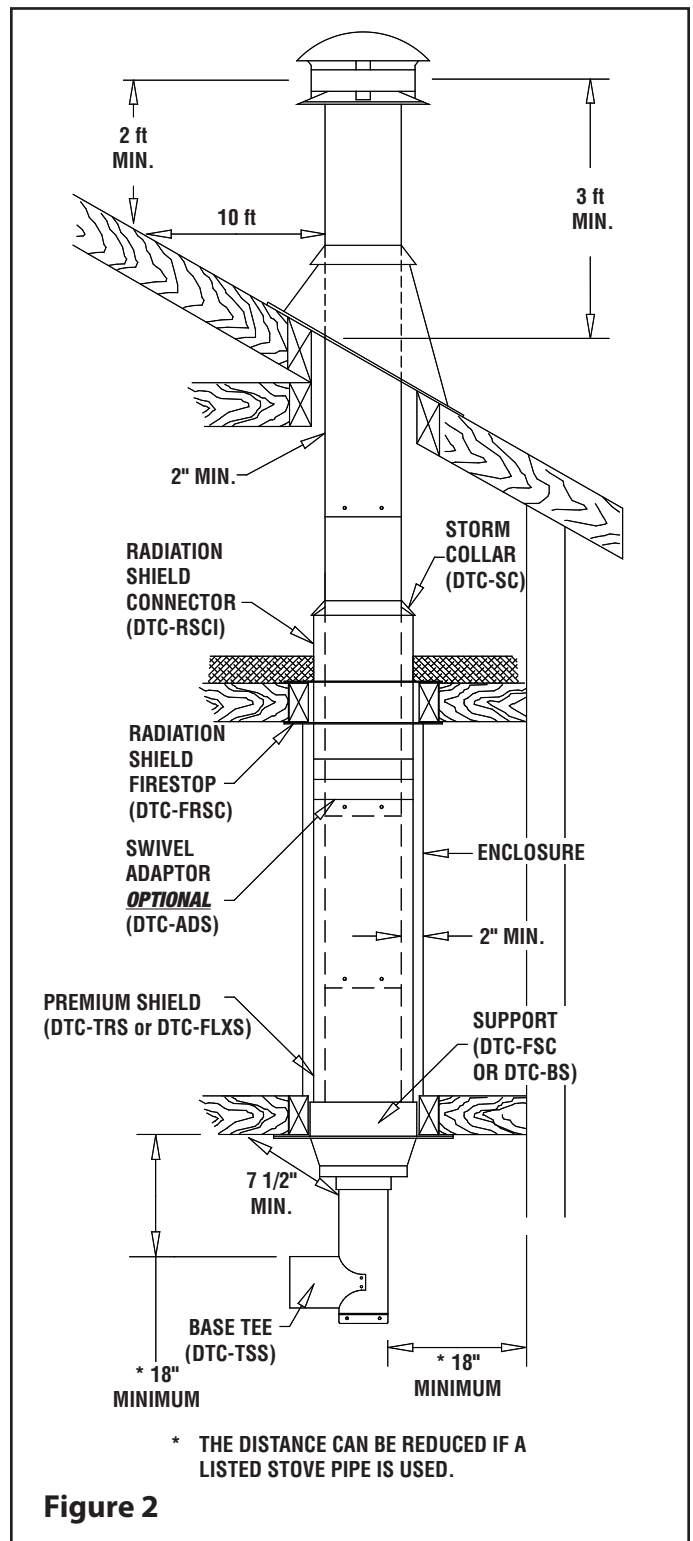
NOTE: ALL DIMENSIONS ARE IN INCHES.

# 1

## GENERAL INSTALLATION NOTES

### INSTALLATION NOTES

- The chimney is intended for use with solid (6", 7", 8" dia. only) or liquid and gaseous fuel burning appliances. (all diameters)  
Allowable flue gas temperature:  
Maximum continuous 540°C (1000°F)  
Brief forced firing 760°C (1400°F)  
Tested to 1150°C (2100°F) - 30 minutes
- On wood or coal stove application and in area where the chimney is completely enclosed, it is required to install Premium shields (telescopic or flexible) around the chimney and a Radiation shield connector (RSCI) at the ceiling level.**  
**For venting of gas or oil burning appliances Premium shields are not required even where the chimney is enclosed.**  
**For factory-built wood burning fireplaces, Premium shields are usually not required, please follow fireplace installation instruction.**
- The maximum height of chimney supported by the various supports are outlined on **page 3**.
- The supports described in this booklet should only be used with Duravent model DURATECH CANADA (DTC), 5", 6", 7", 8" and 10" factory built chimneys.
- Size the chimney in accordance with the appliance manufacturer's instructions.
- When a firestop (DTC-FS, DTC-ISI or DTC-RSCI) needs to be installed, it is important to follow the opening dimensions for the floor openings prescribed in this manual.
- A chimney servicing a fireplace or an incinerator shall not serve any other appliance.
- The chimney shall extend at least 3 ft above its point of contact with the roof and at least 2 ft higher than any wall, roof or adjacent building within 10 ft of it.
- The maximum height of unguided chimney above the roof is 5 ft.
- The clearance between single wall pipe and unprotected combustible material must not be less than 18" (see national building code and NFPA 211) except: The distance between the vertical stove pipe and the ceiling may be less than 18" and will be established by the finish support.
- Portions of the chimney which may extend through accessible spaces shall be enclosed in all cases to avoid personal contact with the chimney and damage to the chimney. When doing so on woodstove or coal application, a telescopic or flexible Premium shield must be installed (**see Figure 2**). Except for installation in single and two-story family dwellings, the enclosure must have a fire resistance rating equal to or greater than that of the floor or roof assemblies through which they pass.
- Do not fill the 2" space around the chimney with insulation or any other material. Insulation placed in this area could cause adjacent combustibles to overheat.
- Self tapping screws are not required, but may be used to reinforce the connection and avoid accidental unlocking of chimney lengths.
- If needed, when penetrating the building envelope, the gap between the outer layer of chimney and any firestop or wall thimble can be sealed with high temperature rated (315°C) (600° F) silicone caulking. Doing so will help preserve the building envelop integrity.



**Figure 2**

### WARNING

**The clearance between the chimney and combustible material must not be less than 2", except where established by the support. Do not fill this area with insulation.**

## 2

## INTERIOR STRAIGHT INSTALLATION - SINGLE FLOOR

**NOTE:** If using the Reduced Clearance Support (RCS) at the attic level, the use of an attic radiation shield is not required. The Reduced Clearance Support (RCS) acts as an attic radiation shield when installed with insulation and a collar (provided).

Step 1: Locate the chimney in a convenient place as near as possible to the appliance outlet.

Step 2: Cut and frame the opening in the ceiling and roof where the chimney will pass (see Table 3).

**NOTE:** It is important to follow the framing dimensions for ceiling and roof openings as prescribed in this manual.

CHIMNEY SIZE	FRAMING DIMENSION	
	REDUCED CLEARANCE SUPPORT (RCS)	ROOF OPENING
6"	10-1/8" x 10-1/8"	12-3/8" x 12-3/8"
7"	11-1/8" x 11-1/8"	13-3/8" x 13-3/8"
8"	12-1/8" x 12-1/8"	14-3/8" x 14-3/8"

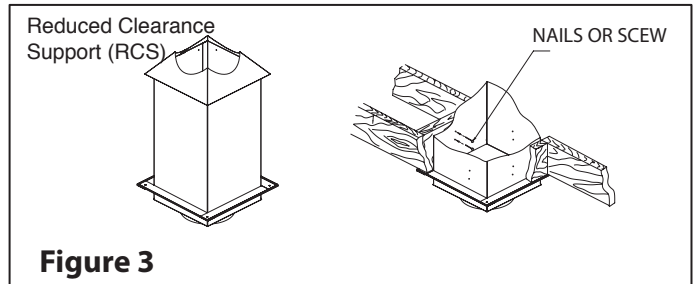
**Table 3**

Step 3: From below, push the Reduced Clearance Support (RCS) into the framed opening in the ceiling. Ensuring the support is level, nail the support to the framed opening using (12) - 3" spiral nails or #8 x 1 1/2" wood screws (see Figure 3). At least 3 1/2" of the support must extend into the room. Screw the Finish Trim (included) to the ceiling.

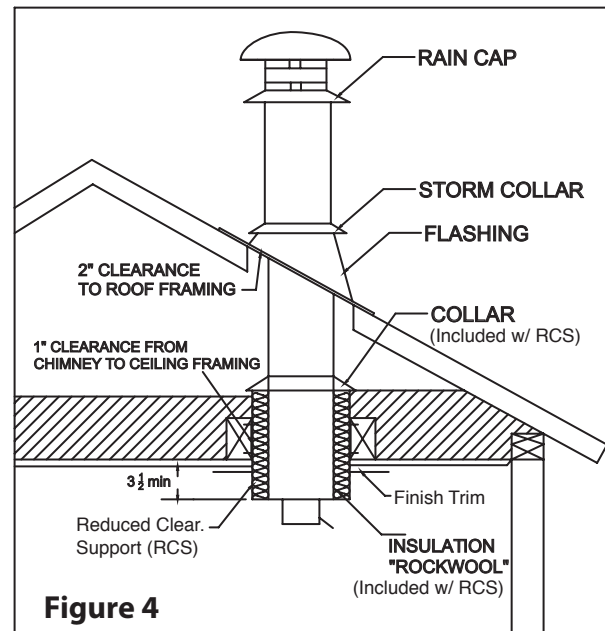
Step 4: Place first chimney length into the support. Twist to lock into place. Wrap the insulation pad around the chimney section removing any excess. Slide insulation pad into the space between the chimney section and support making sure the insulation makes contact with the bottom of the support.

**NOTE:** If needed, a Support Extension (SE) can be attached to the support to increase its height. (See page 11).

You may use approved insulation in the extension, it listed / compliant with ASTM E136/ULC S114 as Non-Combustible, have a melting temperature above 2000°F/1100°C, be water resistant with low moisture absorption. Material such as Rockwool qualify.



**Figure 3**



**Figure 4**

## 2

## INTERIOR STRAIGHT INSTALLATION - SINGLE FLOOR (CONT'D)

**NOTE:** Make sure arrow on pipe label is pointing upward.

Step 5: Place the collar around the chimney on top of the square support. Make sure it completely covers the top of the square support.

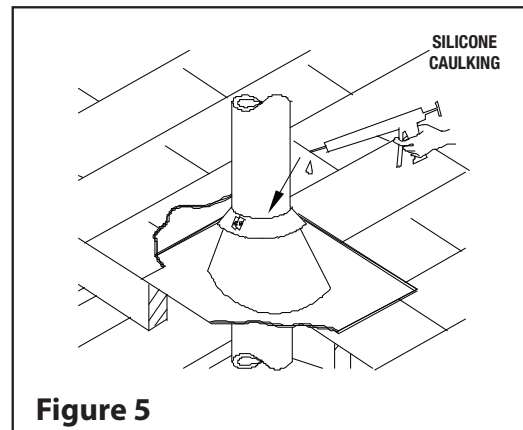
Step 6: Stack the next chimney length on the first length. Be sure that the male and female threads are not in line when putting the lengths together. Turn the chimney clockwise to lock it in place. Continue until the required chimney height is reached.

### Step 7: ROOF FLASHING INSTALLATION

Put the roof flashing in place. Seal the joint between the roof and the flashing with roofing compound. For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Nail the flashing to the roofing nails. Place the storm collar over the chimney and the flashing.

Step 8: Tighten it with the bolt supplied and make sure the joint is properly caulked (see Figure 5).

Step 9: Attach the rain cap to the top of the chimney.



# 3

## INTERIOR STRAIGHT INSTALLATION - MULTIPLE FLOOR

Step 1: Locate the chimney in a convenient place as near as possible to the appliance outlet.

Step 2: Cut and frame the opening in the floor, ceiling and roof where the chimney will pass.

**NOTE:** It is important to follow the framing dimensions for the floor openings prescribed in this manual. (see Table 4).

FRAMING DIMENSIONS		
CHIMNEY SIZE	FINISH SUPPORT (FSC) or (BS)	RADIATION SHIELD* & ROOF
5"	12-1/8" x 12-1/8"	11-3/8" x 11-3/8"
6"	12-1/8" x 12-1/8"	12-3/8" x 12-3/8"
7"	14-3/8" x 14-3/8"	13-3/8" x 13-3/8"
8"	14-3/8" x 14-3/8"	14-3/8" x 14-3/8"
10"	---	16-3/8" x 16-3/8"

**Table 4**

**\* For sloping roofs see size Table 2 on page 3**

Step 3: From below push the Finish Support (FSC) into the framed hole. Nail the support to the framed box using (12) - 3" spiral nails (see Figure 6).

Step 4: If you are venting a Factory built fireplace or an oil or gas burning appliance please refer to installation notes #2 (on page 4) for guidelines on the use of the shields.

Step 5: FOR UNENCLOSED INSTALLATION OR VENTING OF OIL OR GAS APPLIANCES:

Refer to interior installation on a furnace and water heater guideline (page 19).

Step 6: FOR ENCLOSED INSTALLATION (6", 7", 8" dia. only) (woodstove or coal burning appliance):

- Lock the first chimney length into the support with the arrow on label pointing up.
- Slide a Telescopic Rigid shield (TRS) on top of that length all the way to the bottom. Stack the next chimney length on the first length. Be sure that the male and female threads are not in line when putting the lengths together. Turn the chimney clockwise to lock it in place. You may add a 1/2" stainless steel self tapping screw to prevent accidental unlocking. Continue installing until the chimney reached the ceiling.

- At the ceiling level, install a Radiation Shield Connector (RSCI) and a Radiation Shield Firestop (FRSC) on the chimney (see Figure 8). Slide the Radiation Shield Connector down until the bottom of the insulated tube passes just through the Radiation Shield Firestop as shown in (see Figure 7). Adjust the height until a minimum of (1") of the Radiation Shield Connector passes through the firestop below. Fix it to the chimney from the attic side using (3) - 1/2" self-tapping screws. The Telescopic Shield is then slid upwards to the ceiling and attached to the bottom of the Radiation Shield Connector using (3) - 1/2" self-tapping screws.

In the attic:

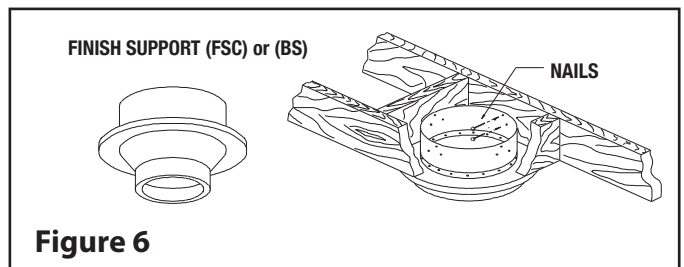
- A Storm Collar (SC) must be installed on top of Radiation Shield to prevent any loose insulation from falling in the area between the chimney and the support.

Step 7: ROOF FLASHING INSTALLATION

Put the roof flashing in place. Seal the joint between the roof and the flashing with roofing compound.

For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles. Nail the flashing to the roof using roofing nails. Place the storm collar over the chimney and the flashing. Tighten it with the bolt supplied making sure the joint is properly caulked (see Figure 9).

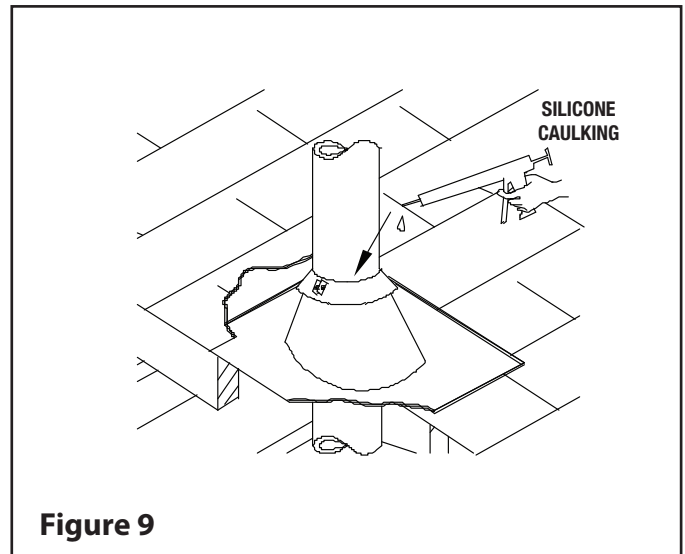
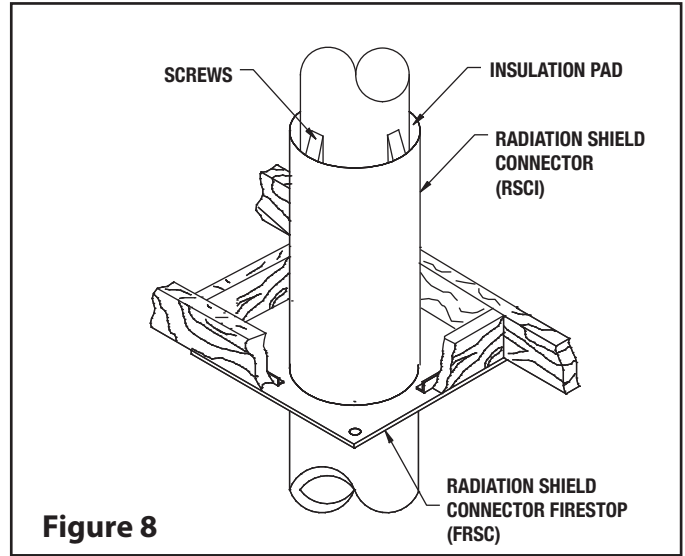
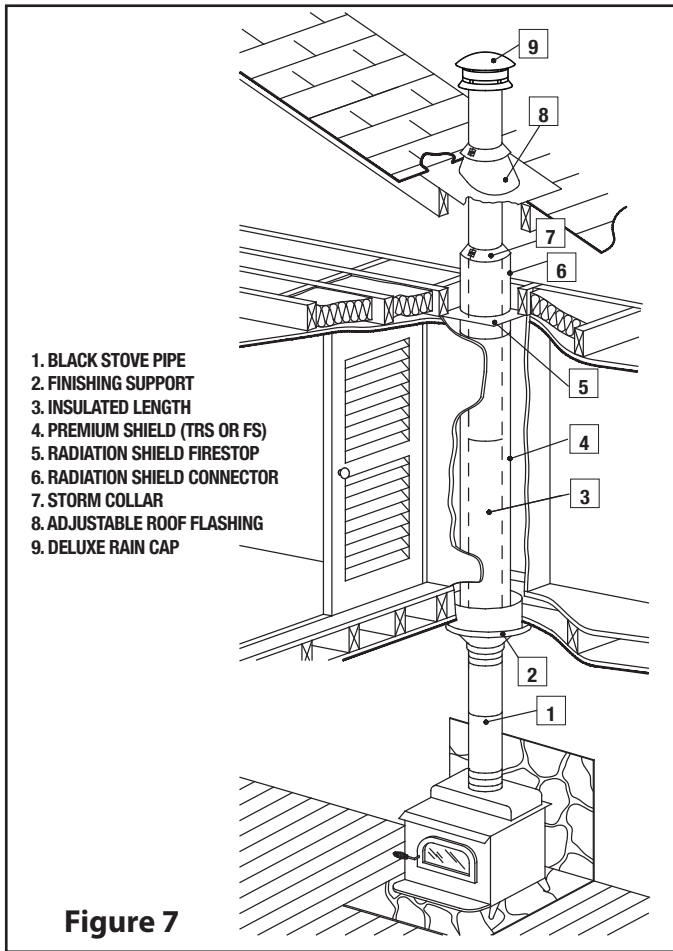
Step 8: Attach the rain cap to the top of the chimney.



**Figure 6**

# 3

## INTERIOR STRAIGHT INSTALLATION - MULTIPLE FLOOR (CONT'D)



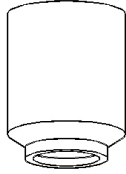


# 4

## INTERIOR INSTALLATION WITH CATHEDRAL CEILING

### A - CATHEDRAL SUPPORT (RCSC)

This support is designed to be used in rooms with cathedral ceilings (no attic space between the ceiling and the roof). If the support is used as a regular floor support, follow the instructions for the Finish Support (FSC) on page 7.



Step 1. Situate the chimney in a convenient location as near as possible to the appliance outlet. Cut and frame an opening in the roof for the support. The sides of this hole must be vertical (Figure 10) (see Table 2 on page 3).

Step 2. From above, place the support in the opening. Refer to table 6 for clearance from finished ceiling.

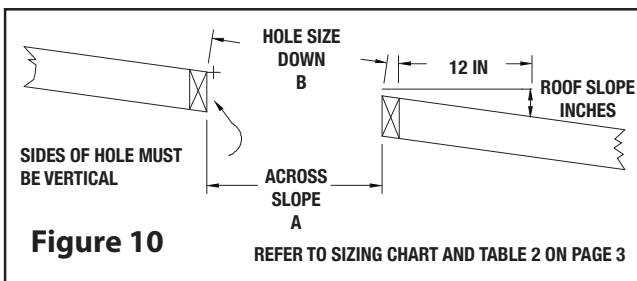
**NOTE:** The cone portion of the support must extend below the nearest wall. The minimum horizontal distance between the single wall stove pipe and the ceiling is 18". \*

THE DISTANCE CAN BE REDUCED IF A LISTED STOVE PIPE IS USED.

Using a level, make sure the support is vertical. If the support extends above the roof, cut it flush with the top of the roof. Nail the support to the framed opening using (12) 3" spiral nails (Figure 11).

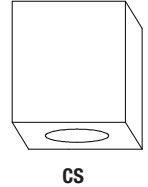
Place first chimney length into the support. Twist to lock in place.

**TO CONTINUE INSTALLATION, REFER TO FLASHING INSTALLATION ON PAGE 7.**



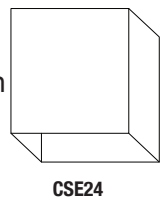
### B - SQUARE SUPPORT (CS)

This support is similar in application and installation as the Cathedral Support (CS). Install it using the instructions previously mentioned (refer to Figure 12 for visual references).



### SUPPORT EXTENSION (CSE24) (For Square Support only)

Steep pitched cathedral ceilings may require the use of a Square Support Extension (CSE24). This piece fits down inside the square support and can be adjusted to increase the support's length by up to 22".



The extension is attached to the support using the eight metal screws provided. Be sure there is at least a 2" overlap where the extension joins the support.

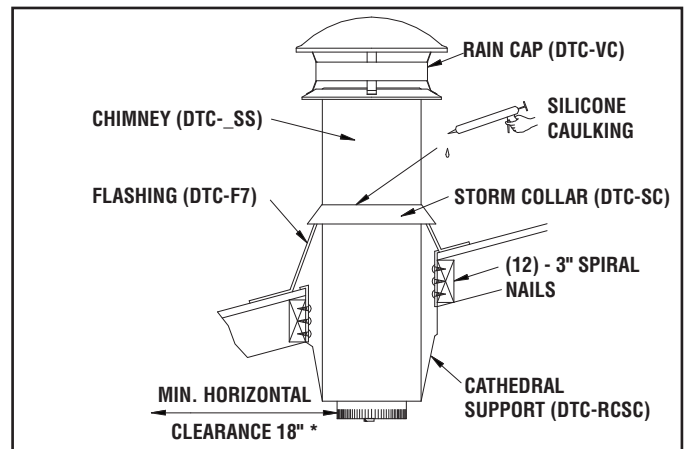


Figure 11

# 4

## INTERIOR INSTALLATION CATHEDRAL CEILING (CONT'D)

### REDUCED CLEARANCE SUPPORT (RCS)

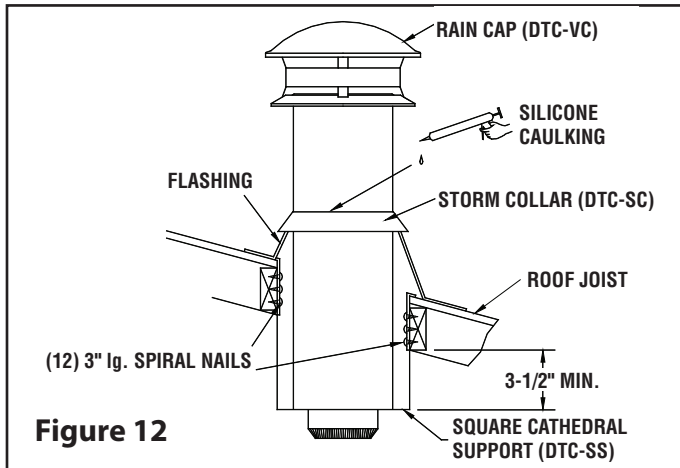
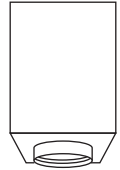


Figure 12

**NOTE:** The Reduced Clearance Support (RCS) comes with a collar. It can be discarded for a Cathedral Ceiling application.



RCS

Step 1: Locate the chimney in a convenient location as near as possible to the appliance outlet. Cut and frame an opening in the roof for the support. The sides of this hole must be vertical (see Figure 15 & Table 5).

Step 2: From above, place the support in the opening. Lower it to proper height (see Figure 14).

**NOTE:** The bottom portion of the support must extend below the ceiling (see Table 6). The minimum horizontal distance between the single wall stove pipe and the ceiling is 18". THE DISTANCE CAN BE REDUCED IF A LISTED STOVE PIPE IS USED.

Step 3: Using a level, make sure the support is vertical. If the support extends above the roof, cut it flush with the top of the roof. Nail the support to the framed opening using (12)-3" spiral nails or #8 x 1 1/2" wood screws (see Figure 14).

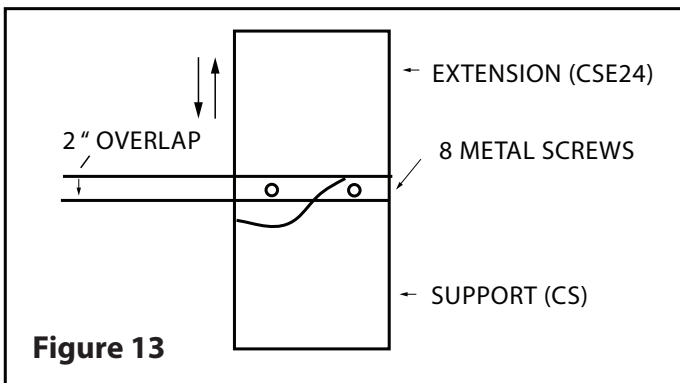


Figure 13

Step 4: Place first chimney length into the support. Twist to lock into place. Wrap the insulation pad around the chimney section removing any excess. Slide insulation pad into space between the chimney section and support making sure the insulation makes contact with the bottom support. If extra insulation required: You may use approved insulation listed / compliant with ASTM E136/ULC S114 as Non-Combustible, have a melting temperature above 2000°F/1100°C, and be water resistant with low moisture absorption. Materials such as rockwool or mineral wool qualify.

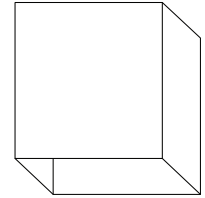
TO CONTINUE INSTALLATION REFER TO FLASHING INSTALLATION ON PAGE 7

# 4

## INTERIOR INSTALLATION CATHEDRAL CEILING (CONT'D)

### Reduce Clearance Support Extension (SE)

Steep pitched cathedral ceilings may require the use of a Support Extension (SE). This piece fits down inside the reduced clearance support and can be adjusted to increase the support's length by up to 22".



SE

The extension is attached to the support using the eight metal screws provided. Be sure there is at least a 2" overlap where the extension joins the support.

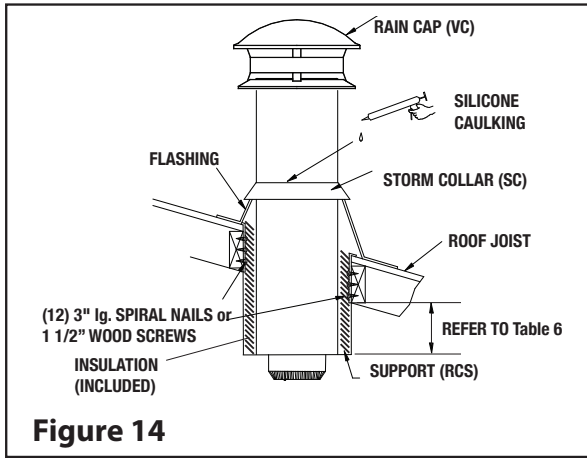


Figure 14

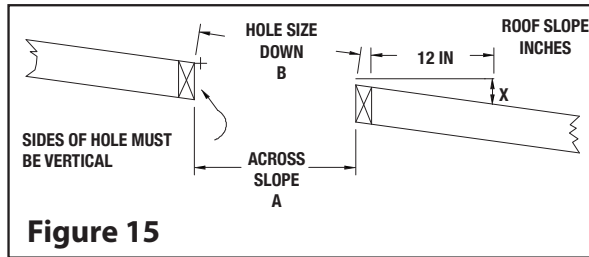
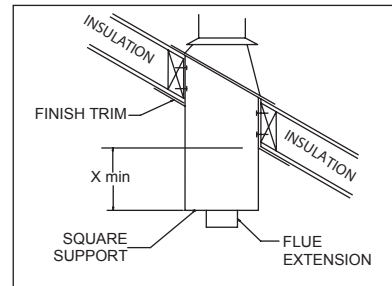


Figure 15

Chimney Size	Hole Size (Reduce Clearance Support)					
	6"		7"		8"	
Roof Slope	A	B	A	B	A	B
x/12						
0	10-1/8	10-1/8	11-1/8	11-1/8	12-1/8	12-1/8
2/12	10-1/8	10-1/4	11-1/8	11-1/4	12-1/8	12-1/4
4/12	10-1/8	10-5/8	11-1/8	11-3/4	12-1/8	12-3/4
6/12	10-1/8	11-1/4	11-1/8	12-1/2	12-1/8	13-1/2
8/12	10-1/8	12-1/8	11-1/8	13-1/4	12-1/8	14-1/2
10/12	10-1/8	13-1/4	11-1/8	14-1/2	12-1/8	15-7/8
12/12	10-1/8	14-1/4	11-1/8	15-3/4	12-1/8	17-1/8

Table 5



Slope	X min
0/12 - 2/12	3 1/2"
2/12 - 7/12	5 1/2"
7/12 - 12/12	6 3/4"
12/12 - 24/12	7 1/2"
24/12	12 1/2"

Table 6

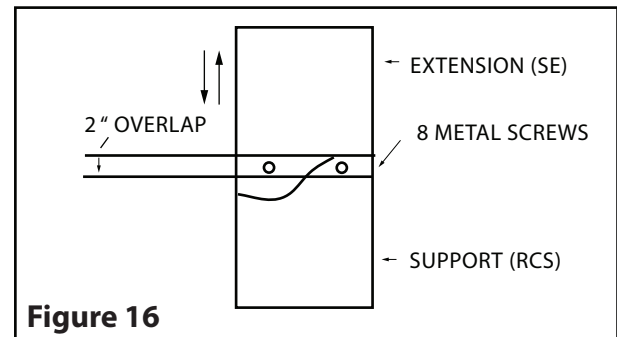
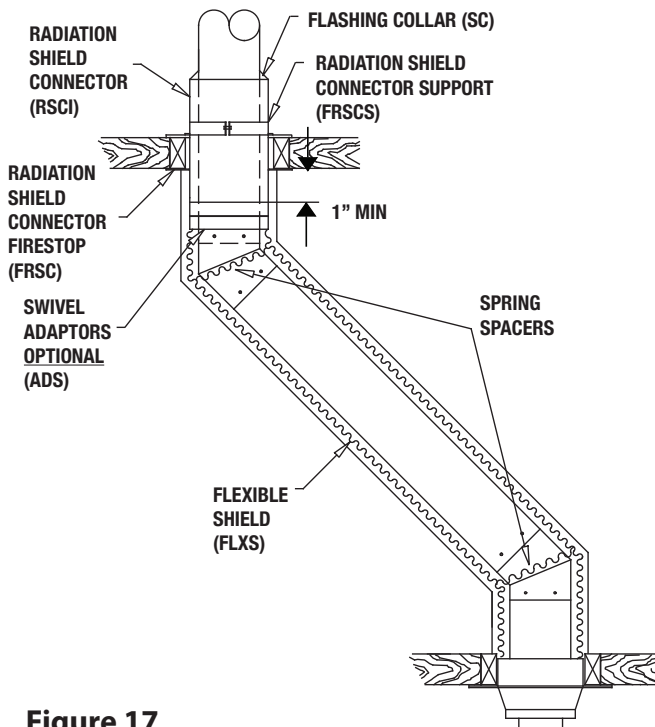


Figure 16

# 5

## OFFSET DEVIATION

### OFFSET CHIMNEY



**Figure 17**

If it is necessary to offset the chimney in order for it to pass through an obstruction, do this by using 15°, 30° or 45° insulated elbows. A maximum of two offsets (4 elbows in all) is allowed in a chimney.

The minimum chimney height when using 15° offsets is 10’.

The minimum chimney height when using 30° offsets is 15’.

The maximum length of unsupported offset chimney is 6’. If the offset chimney is longer than 6’, then it must be supported at 6’ intervals using an Re-Support (RESU) or Wall Band (WSU).

### INSTALLATION INSTRUCTIONS

If you are venting a Factory built fireplace or an oil or gas burning appliance please refer to installation notes #2 (on page 4) for guidelines on the use of the Premium Shields.

### For Enclosed installation (6", 7", and 8" dia. only) (woodstove or coal burning appliance):

- Place the first chimney length on a flat surface with the male coupling on top.
- Slide a Flexible Shield (FLXS) on top of that length all the way to the bottom.
- Attach the flexible shield to the section using 3 x 1/2" stainless steel self tapping screws.
- Slide this assembly in the support and turn clockwise to lock it in place.
- At the ceiling level from the top, install a Radiation Shield Connector (RSCI) and a Radiation Shield Support (FRSCS) attached but not tightened together (see Figure 17).
- Slide the Radiation Shield Connector down until the bottom of the insulated tube exceed the bottom of ceiling.
- Adjust the height until a minimum of (1") of the Radiation Shield Connector project below the ceiling (see Figure 19).

Stack the next chimney length on the first length. Be sure that the male and female threads are not in line when putting the lengths together. Turn the chimney clockwise to lock it in place. You may add a 1/2 in stainless steel self tapping screw to prevent accidental unlocking.

When you reach the height at which the elbow will be installed:

- Step 1. Install the insulated offset elbow on the vertical chimney length. Turn it in the required direction and fasten it to the chimney with the (4)-1/2" metal screws provided.
- Step 2. Place the required offset chimney length (see Table 7) on the elbow. Turn it clockwise to lock it in place.
- Step 3. Use another elbow to turn the chimney vertically. Again secure the elbow to the chimney length using the (4) 1/2" metal screws.

Attach a spacer spring around the chimney at each elbow to help keep the Flexible Shield centered. (See Figure 17) Slide the Flexible Shield up the chimney and attach it below the ceiling to the Radiation Shield Connector using (3) - 1/2" self tapping metal screws. If you are limited in space to screw, install a Swivel Adaptor (SA) (see Figure 17) below the Shield Connector (RSCI) and one on the top end of the Flexible Shield.

# 5

## OFFSET DEVIATION (CONT'D)

In the attic:

- Fix the Radiation Shield (FRSCS) to the chimney and tighten the collar support.
- A Storm Collar (SC) must be install on top of Radiation Shield (RSCI) to prevent any loose insulation from falling in the area between the chimney and the support.

### For Unenclosed installation or venting of oil or gas appliances:

Put the first chimney length in the support. Turn it clockwise to lock it in place.

Stack the next chimney length on the first length. Be sure that the male and female threads are not in line when putting the lengths together. Turn the chimney clockwise to lock it in place. You may add a 1/2" stainless steel self tapping screw to prevent accidental unlocking. When you reach the height at which the elbow will be install:

Step 1. Install the insulated offset elbow on the vertical chimney length. Turn it in the required direction and fasten it to the chimney with the (4)-1/2" metal screws provided.

Step 2. Place the required offset chimney length (see Table 7) on the elbow. Turn it clockwise to lock it in place.

Step 3. Use another elbow to turn the chimney vertically. Secure the elbow to the chimney length using the (4)-1/2" metal screws provided.

Install the remaining chimney as described in the instructions for the Interior Straight installation (see pages 6-7).

### INSTALLATION CALCULATIONS

Determine the offset required in view of the obstacles that must be avoided (see Figure 18). Refer to Table 7 below to determine the elbows required as well as the insulated length needed.

### **! WARNING**

**A support must always be installed right above each offset (two elbows) to support the chimney above the offset.**

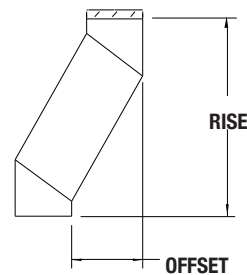


Figure 18

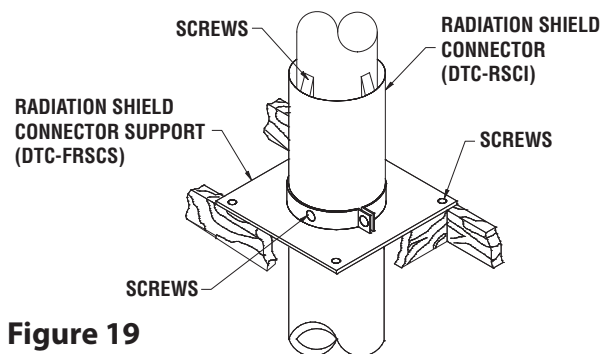


Figure 19

### OFFSET & RISE CHART MODEL DTC (5" - 10")

ANGLE	DIA.	INCHES	ONE LENGTH BETWEEN ELBOWS						TWO LENGTHS BETWEEN ELBOWS					
			8	12	18	24	36	48	8 & 48	12 & 48	18 & 48	24 & 48	36 & 48	48 & 48
15°	5" - 10"	Offset	3-5/16	4-5/16	5-7/8	7-7/16	10-1/2	13-5/8	15-3/8	16-7/16	18	19-1/2	22-5/8	25-3/4
		Rise	15-11/16	19-9/16	25-3/8	31-3/16	42-3/4	54-3/8	60-15/16	64-13/16	70-9/16	76-3/8	87	99-9/16
30°	5" - 10"	Offset	7-7/16	9-7/16	12-7/16	15-7/16	21-7/16	27-7/16	30-13/16	32-13/16	35-13/16	38-13/16	44-13/16	50-13/16
		Rise	20	23-1/2	28-11/16	33-7/8	44-1/4	54-11/16	60-9/16	64	69-1/4	74-7/16	84-13/16	95-1/4
45°	5" - 10"	Offset	10-5/16	13-3/16	17-3/8	21-5/8	30-1/8	38-5/8	43-7/16	46-1/4	50-1/2	54-3/4	63-1/4	71-11/16
		Rise	17-13/16	20-5/8	24-7/8	29-1/8	37-5/8	46-1/8	50-15/16	53-3/4	58	62-1/4	70-3/4	79-3/16

Note: All dimensions are in inches.

Table 7

# 5

## OFFSET DEVIATION (CONT'D)

### ROOF SUPPORT (RS)

The roof support has three possible uses:

- It may be used to support a chimney from the roof. It adjusts to any roof pitch.
- It may be used on a floor, ceiling, or roof above an offset to support the chimney above the offset.
- It may be used on a floor, ceiling or roof as a supplementary support when the chimney height exceeds that of the primary support. (See maximum length height supported, Table 1 page 3).

### INSTALLATION INSTRUCTIONS

With the chimney extending through the hole in the roof, ceiling or floor proceed as follows (Refer to Figure 20 for visual references):

- Step 1. Assemble the support collar to fit your chimney diameter, as described on the instruction sheet supplied with the support.
- Step 2. Slip the support down over the chimney length until its brackets rest on the roof or floor. Tighten the collar around the chimney length, then secure it by screwing the (4) 1/2" metal screws (supplied) through the holes located on each side of the collar bolts and into the chimney (Figure 20).
- Step 3. Center the chimney and nail or screw the support to the roof or floor using (8) - 2-1/2" nails or (8) N°. 8 - 1-1/4" wood screws.

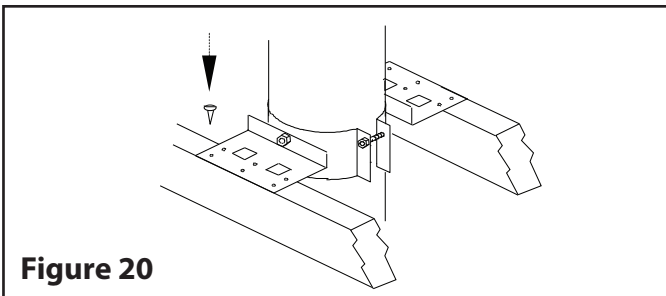
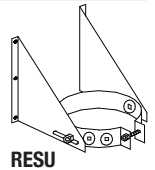


Figure 20

### OFFSET/WALL SUPPORT (RESU) (RESU1)

When a chimney is used along a wall, this support may be used on the wall to support the chimney. The height of chimney supported is shown in supported height page 3.

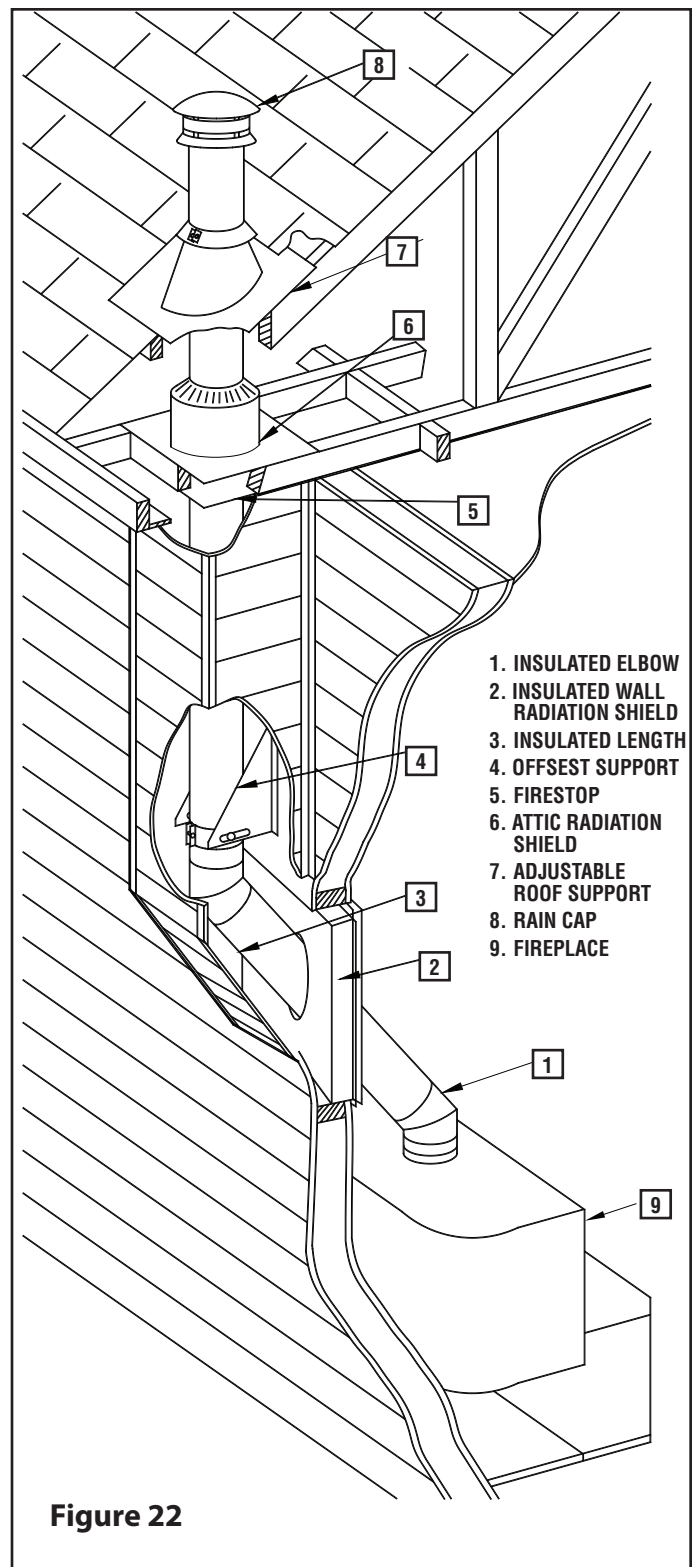
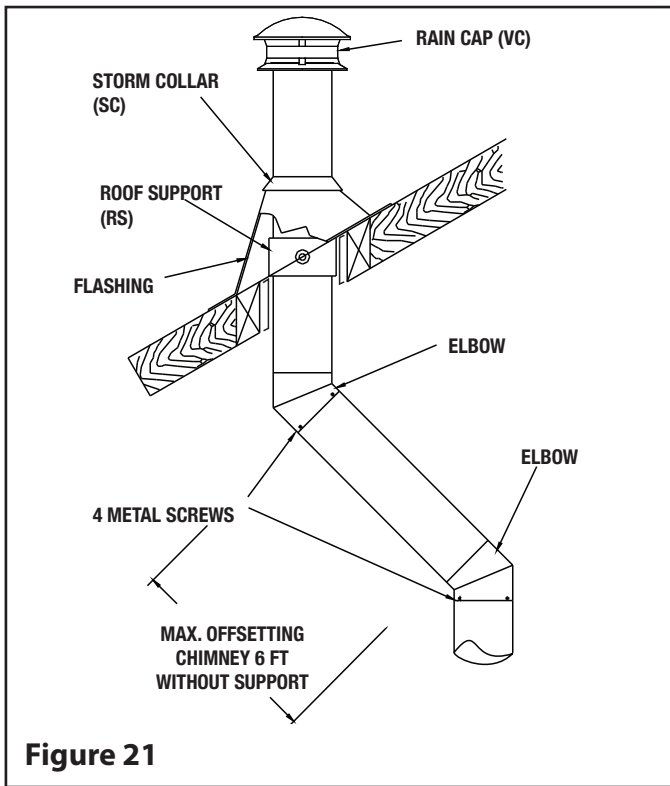


### INSTALLATION INSTRUCTIONS

Install the support as follows (Figure 22):

- Step 1. Assemble the support collar to fit your chimney diameter as described on the installation sheet supplied with the support.
- Step 2. Slip the support down over the chimney to a convenient location. Be sure that the support attaches to a solid wall and not merely to dry wall or aluminum siding.
- Step 3. Tighten the collar around the chimney. Then, secure it by screwing four 1/2" metal screws (supplied) through the holes located on each side of the collar bolts and into the chimney.
- Step 4. Attach the support brackets to the wall using (8) 3" nails or (8) N°. 10 x 1-1/4" wood screws.
- Step 5. Continue installing the chimney.

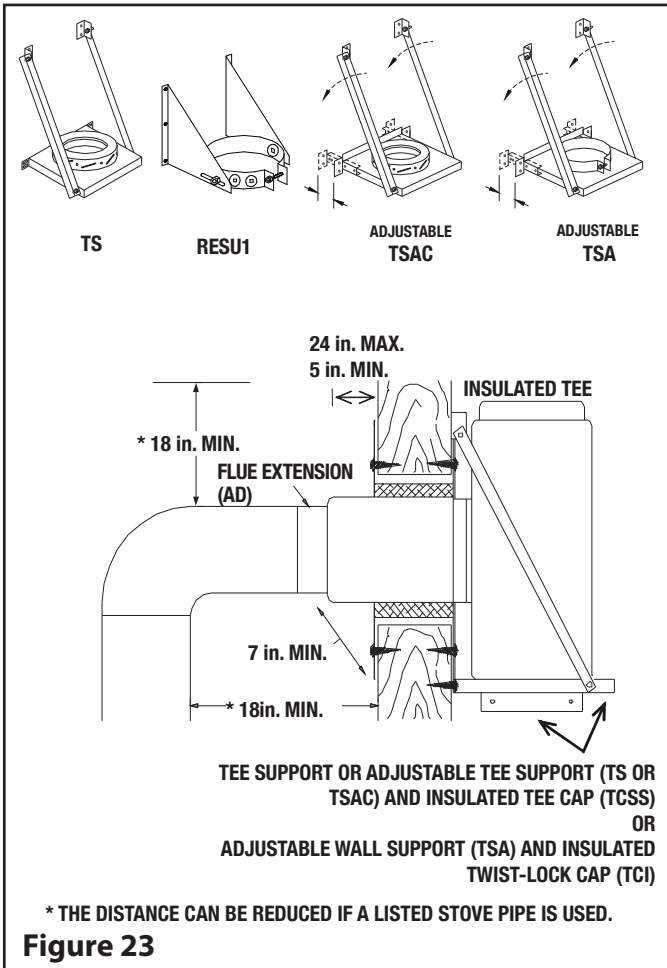
NOTE: Be sure that the support attaches to framing and not merely to dry wall or aluminum siding.



# 6

## EXTERIOR INSTALLATION

### TEE & WALL SUPPORT



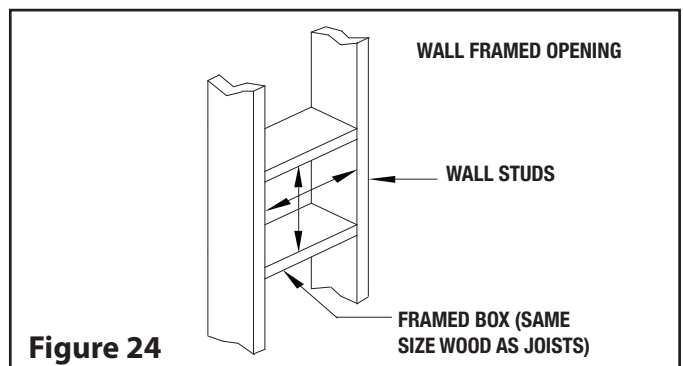
**Figure 23**

Four supports are available, an Adjustable with Collar (TSA), an Offset/Wall Support (RESU1), an Adjustable with Coupling (TSAC), and a Non-Adjustable with Coupling (TS).

### INSTALLATION NOTES

If possible, install an interior chimney as it will provide better performance than an exterior chimney. In areas with continuous temperatures below -18°C (0°F), the use of an exterior chimney may result in operating problems such as poor draft, excessive condensation of combustion products and rapid accumulation of creosote when connected to a wood burning appliance. If you do install an exterior chimney, we recommend that you enclose it using an insulated enclosure.

1. The chimney may be enclosed or unenclosed.
- NOTE:** If enclosed at 3" or more clearance all around the chimney on a wood stove application, no Premium shields are required on exterior installations.
2. Do not fill the clearance space around the chimney with insulation or any other material.
3. On installations where there is no enclosure around the chimney a wall band must be used to secure the chimney to the wall. Maximum distance between wall bands is 8'.
4. The minimum length of chimney extending past the inside wall is 5".
5. The maximum length of chimney extending past the inside wall is 24".
6. The distance between the stove pipe and a parallel combustible wall or ceiling must not be less than 18". The distance between the horizontal stove pipe and the unshielded vertical wall.
7. If an exterior installation is to be enclosed, allow for access to base of tee to facilitate required cleaning.
8. The minimum distance between the bottom of the support and any horizontal combustible (including the ground) is 6". This distance can be reduced to 2" by using an insulated tee cap (TCI) in conjunction with an Adjustable Wall Support (TSA) or (RESU1).
9. The Adjustable Support (TSA) and (RESU1) may only be installed with a twist-lock Tee Cap (TCI) or (TCSS).



**Figure 24**



# 6

## EXTERIOR INSTALLATION (CONT'D)

CHIMNEY SIZE	HOLE SIZE (WALL)	
	COMBUSTIBLE	CONCRETE
5"	11-3/8" x 11-3/8"	7-3/4"
6"	12-3/8" x 12-3/8"	8-3/4"
7"	13-3/8" x 13-3/8"	9-3/4"
8"	14-3/8" x 14-3/8"	10-3/4"
10"	16-3/8" x 16-3/8"	12-3/4"

**Table 8**

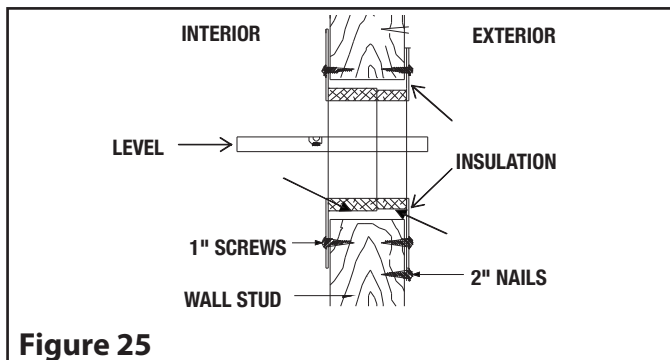
### INSTALLATION INSTRUCTIONS

Step 1: Determine where the chimney will pass through the wall.

- For concrete walls cut an opening slightly larger than the chimney.
- For combustible walls cut and frame a hole 4" larger than the chimney, midway between the wall studs (see Table 8 above for sizing).

Step 2: Normally wall studs are placed at 16" centers. With the hole midway between them, the support will fasten to these studs and thus ensure a strong attachment to the wall. (see Figure 24).

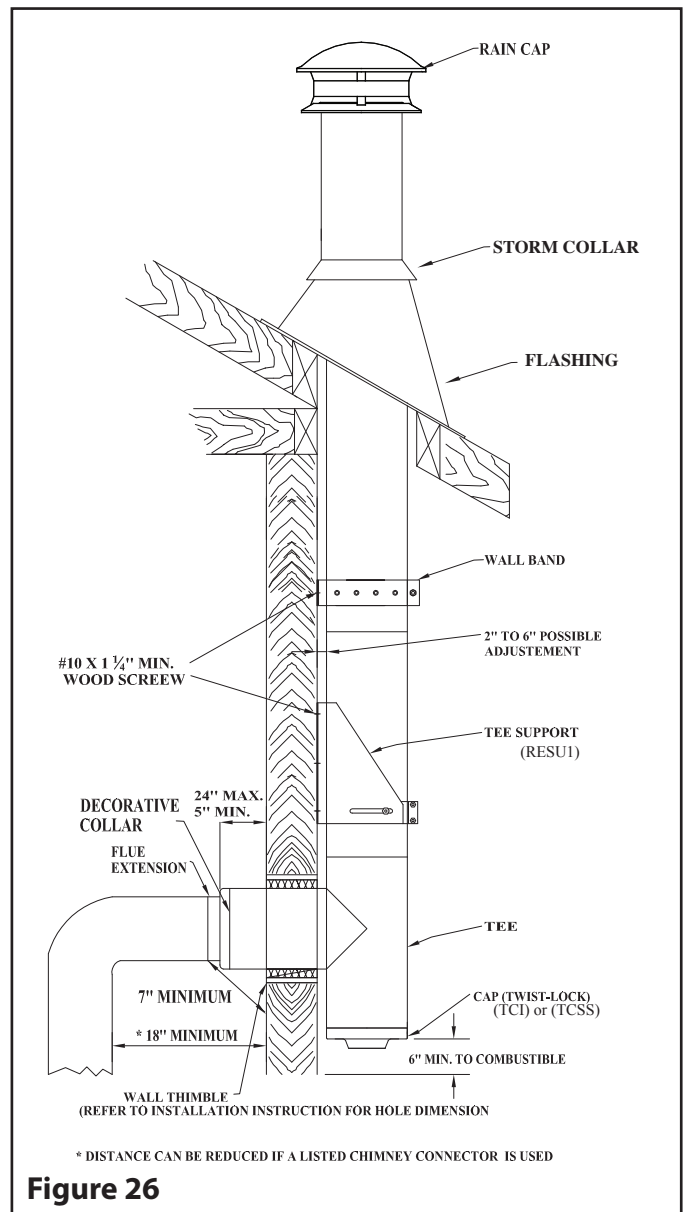
Step 3: Wood walls: Place the exterior half of the Insulated Wall Thimble (WTI) in the opening from the outside. Nail in place using (4) 2" nails or 1" screws. Make sure the insulation pad is cut to the desired length according to the wall thickness. Wrap the insulation pad around the tube of the interior half of the Insulated Wall Thimble. Place the metal sheet around the insulation pad and join the locking tabs together. Place the interior half of the Insulated Wall Thimble inside the exterior half of the Insulated Wall Thimble.



**Figure 25**

Step 4: Using a level make sure that the hole for the chimney to pass through is horizontal. Screw the outer thimble in place with the provided screws (see Figure 25).

**NOTE:** The cavity surrounding the wall thimble can be filled with house insulation.



**Figure 26**

# 6

## EXTERIOR INSTALLATION (CONT'D)

Step 5: The minimum length of insulated chimney required to pass through the wall will be thickness plus 7". The insulated chimney must extend at least 5" into the room beyond the finished wall. Insert this chimney length in the side entry of the insulated tee. Turn it clockwise to lock it in place. Seal this joint by wrapping it with the aluminum tape supplied with the tee.

Mount the insulated tee on the support so that the chimney length which will go through the wall is perpendicular to the side of the support that will fasten to the wall.

Step 6: This step will require 2 people: Insert the chimney length of this tee-support assembly into the hole in the wall. Using a level, ensure the tee is vertical, then attach the support to the wall using (8) N°. 10 x 1 - 1/4" wood screws or 4" spiral nails.

Step 7: Attach the clean-out cap to the support's flue extension using the three metal screws provided. Make sure that the screws have pierced through the flue extension. The cap is in the box with the insulated tee. If an insulated tee cap is used, twist lock the tee cap to the tee (Adjustable Support (TSA) only).

**NOTE:** To provide sufficient strength, the nails must be driven into the wall studs. For concrete walls, the support should be attached using (8) 1/4" x 2" lag bolts.

Step 8: Attach the flue extension to the horizontal chimney length using the three metal screws provided.

Step 9 Stack a chimney length on top of the tee. Turn it clockwise to lock it in place.

**NOTE:** The arrow on label should be pointing up.

**Depending on your installation, continue to Step 10 or to Step 11**

### **FOR UNENCLOSED OR ENCLOSED INSTALLATION (3" OR MORE CLEARANCE):**

Step 10: Continue until the required chimney height is reached.

**NOTE:** At 8' intervals, attach the chimney to the wall using a Wall Band (WSU). If the chimney passes through the roof, cut a hole large enough to provide 2" clearance between the chimney and the roof. For pitch roof, see Table 2 on page 3.

TO CONTINUE, SEE ROOF FLASHING INSTALLATION, ON PAGE 7.

### **FOR ENCLOSED INSTALLATION AT LESS THAN 3" FROM COMBUSTIBLES (Woodstove or coal burning appliance only):**

Step 11: Place the first chimney length on a flat surface with the male coupling on top. Slide a Flexible Shield (FLXS) on top of that length all the way to the bottom. Attach the flexible shield to the section using 3 x 1/2" stainless steel self tapping screws. Put this assembly on the tee and turn clockwise to lock in place. At the eave level from the top, install a Radiation Shield Connector (RSCI) and a Radiation Shield Support (FRSCS) attached but not tightened together (Figure 19). Slide the Radiation Shield Connector down until the bottom of the insulated tube exceeds the bottom of the ceiling. Adjust the height until a minimum of 1" of the Radiation Shield Connector projects below the eave. (see figure 17) and tighten the collar support. Stack the next chimney length on the first length. Be sure that the male and female threads are not in line when putting the lengths together. Turn the chimney clockwise to lock it in place. You may add a 1/2" stainless steel self tapping screw to prevent accidental unlocking.

TO CONTINUE, SEE ROOF FLASHING INSTALLATION, ON PAGE 7.

# 5

## INTERIOR INSTALLATION ON A FURNACE AND WATER HEATER

Step 1. Locate the chimney in a convenient place as near as possible to the appliance outlet. Cut and frame the opening in the ceiling where the chimney will pass.

**NOTE:** It is important to follow the framing dimensions for the floor openings prescribed in this manual.

Chimney Size	Hole size
5"	12-1/8" x 12-1/8"
6"	12-1/8" x 12-1/8"
7"	14-3/8" x 14-3/8"
8"	14-3/8" x 14-3/8"
10"	14-3/8" x 14-3/8"

**Table 9**

Step 2. From below push the support into the framed hole. Nail the support to the framed box using (12) 3" spiral nails (see Figure 27).

Step 3. Put this first chimney length in the support. Turn it clockwise to lock it in place.

**NOTE:** The arrow on pipe label must be pointed up.

Step 4. From below, install a firestop (DTC-FS) in each floor through which the chimney passes (see Figure 28).

Step 5. Stack the next chimney length on the first length. Be sure that the male and female threads are not in line when putting the lengths together. Turn the chimney clockwise to lock it in place. Continue until the required chimney height is reached.

Step 6. At the attic level, install a firestop (DTC-FS), from below and an attic radiation shield (DTC-ISI) from above (see Figure 29).

Step 7. Put the roof flashing in place. Seal the joint between the roof and the flashing with roofing compound.

For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles.

Nail the flashing to the roof using roofing nails.

Step 8. Place the storm collar over the chimney and the flashing. Tighten it with the bolt supplied making sure the joint is properly caulked (see Figure 30).

Fit the rain cap to the top of the chimney.

FINISH SUPPORT (DTC-FSC) or (DTC-BS)

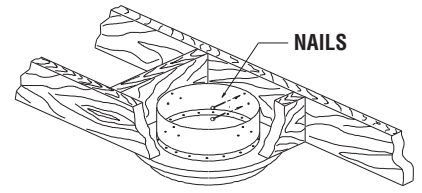
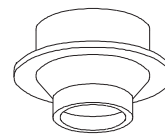
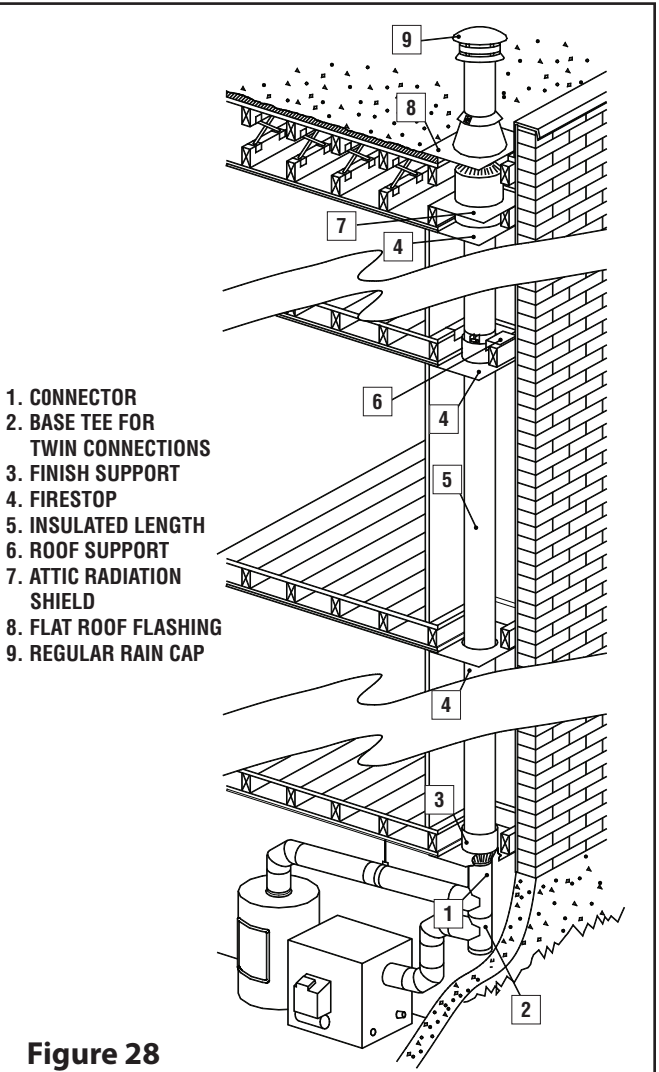


Figure 27



1. CONNECTOR
2. BASE TEE FOR TWIN CONNECTIONS
3. FINISH SUPPORT
4. FIRESTOP
5. INSULATED LENGTH
6. ROOF SUPPORT
7. ATTIC RADIATION SHIELD
8. FLAT ROOF FLASHING
9. REGULAR RAIN CAP

Figure 28

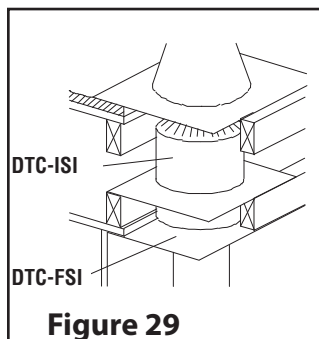


Figure 29

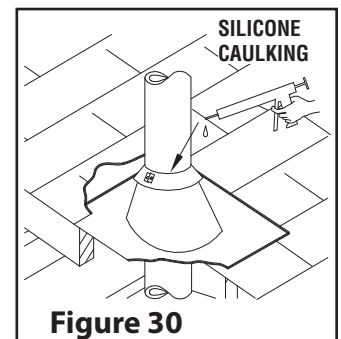


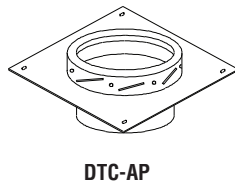
Figure 30



## SPECIALIZED COMPONENTS

### ANCHOR PLATE (DTC-AP)

This support is used on a masonry fireplace or on top of a furnace to provide a positive connection to the chimney. It is not to be used in contact with any combustible material, such as on a wood floor.



DTC-AP

### INSTALLATION INSTRUCTIONS

Once the appliance is installed, bolt the anchor plate (AP) to it. Install the chimney according to the installation instructions for the finish support (DTC-FSC) (See figure 31).

### FACTORY-BUILT FIREPLACES

For chimneys installed on factory-built fireplaces, follow the installation instructions accompanying the fireplace.

### INSULATED WALL RADIATION SHIELDS

#### ANGLED INSULATED RADIATION SHIELD (DTC-WRSI30/DTC-WRSI45)

It has been designed for use when a chimney passes through a wall at an angle. (See figure 33 for application).

Ø INT.	FRAMING SIZE					
	DTC-WRSI30			DTC-WRSI45		
	7"	8"	10"	7"	8"	10"
A	37-3/4	39-3/4	45-5/16	26-5/8	28	30-1/2
B	16-5/8	17-5/8	19-3/8	16-5/8	17-5/8	19-3/8
C	12-5/8	13-5/8	15-3/8	12-1/8	13-1/2	14-7/8
D	33-3/4	35-3/4	39-1/4	22-1/8	23-1/2	26
E	3	3	3	3	3	3

Table 10

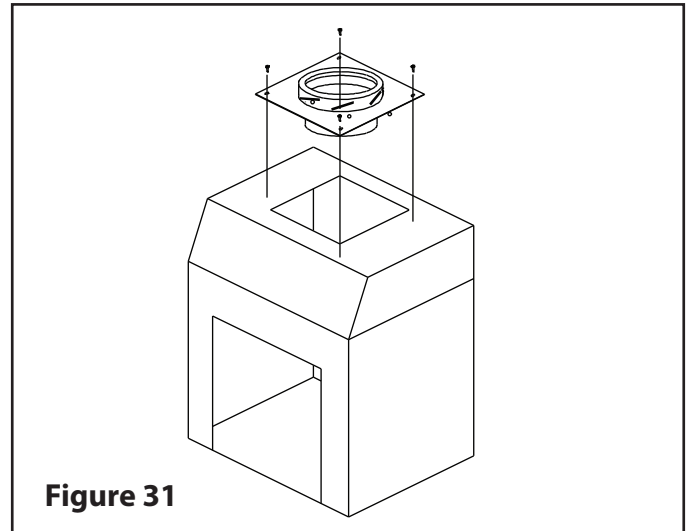


Figure 31

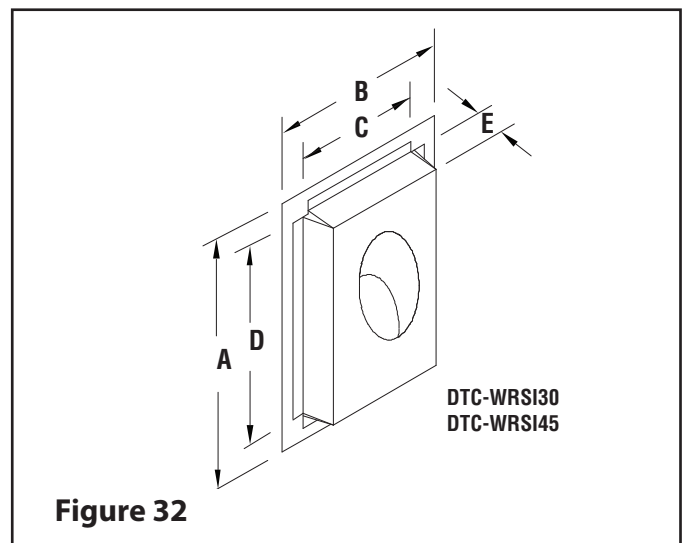
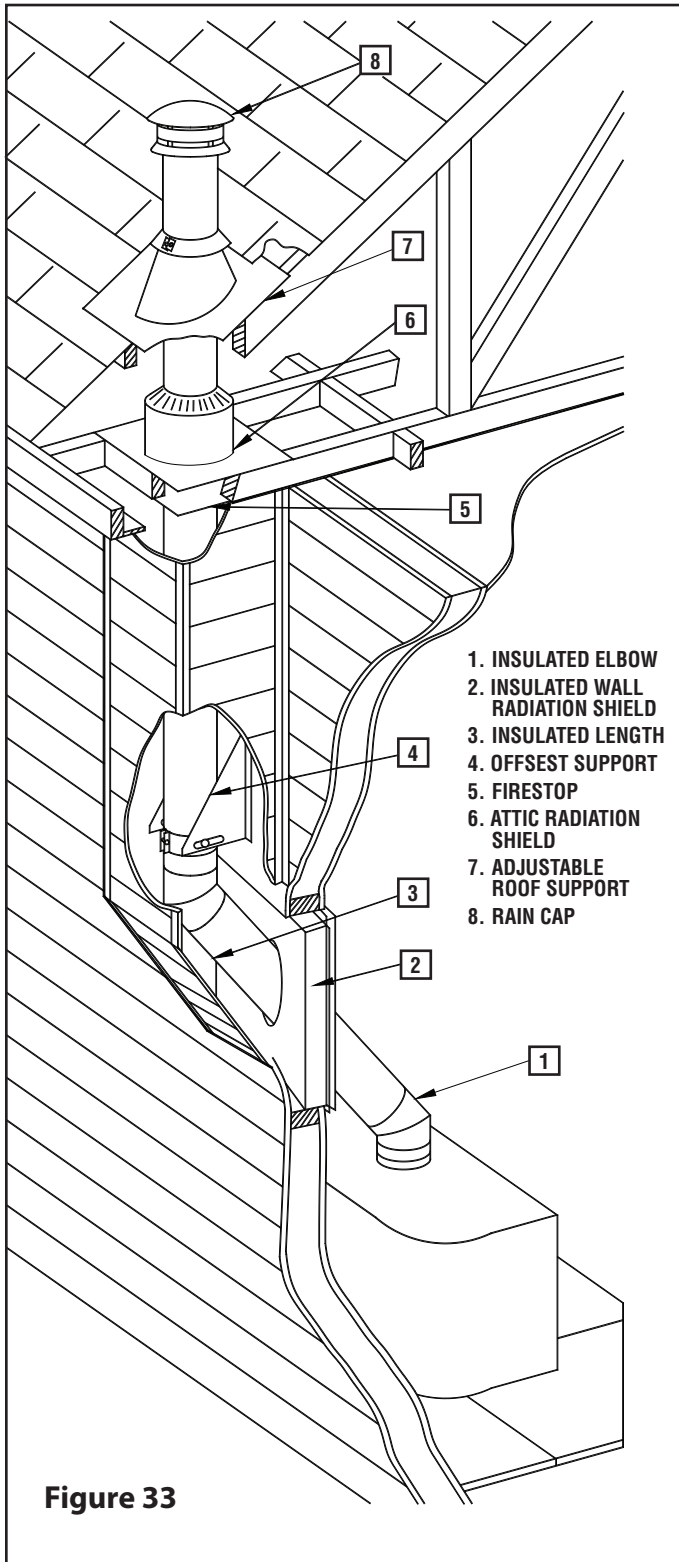


Figure 32

DTC-WRSI30  
DTC-WRSI45



## SPECIALIZED COMPONENTS



## DuraVent Limited Lifetime Warranty

M&G DuraVent, Inc. ("DuraVent") provides this limited lifetime warranty for all of its products with the exception of Ventinox® (lifetime), and PolyPro® (ten years). Subject to the limitations set forth below, DuraVent warrants that its products will be free from defects in material or manufacturing, if properly installed, maintained and used. DuraVent products are fully warranted if installed only by a professional installer. This Warranty is transferable from the original homeowner to the buyer of the home. This warranty does not cover normal wear and tear, smoke damage or damage caused by chimney fires, acts of God, or any product that was: (1) purchased other than from an authorized DuraVent dealer, retailer or distributor; (2) modified or altered; (3) improperly serviced, inspected or cleaned; or (4) subject to negligence or any use not in accordance with the installation instructions included with the product as determined by DuraVent. Installation instructions are available online at [www.duravent.com](http://www.duravent.com) under Support/Literature and through our Customer Service Department 800-835-4429 or [customerservice@duravent.com](mailto:customerservice@duravent.com). This limited lifetime warranty applies only to parts manufactured by DuraVent.

DuraVent provides the following warranties for its products: One Hundred Percent (100%) MSRP 15 years from the date of purchase, and Fifty Percent (50%) thereafter, except for the following limitations on: all Termination Caps and DuraBlack® are warranted at One Hundred Percent (100%) for five years.

All warranty obligations of DuraVent shall be limited to repair or replacement of the defective product pursuant to the terms and conditions applicable to each product line. These remedies shall constitute DuraVent's sole obligation and sole remedy under this warranty. This warranty provides no cash surrender value. The terms and conditions of this warranty may not be modified, altered or waived by any action, inaction or representation, whether oral or in writing, except upon the express, written authority of an executive officer of DuraVent.

Corn, bio-fuels, driftwood or other wood containing salt, preservative-treated lumber, plastic and household trash or garbage, or wood pellets containing such materials must not be burned in the appliance or fireplace. In case of a chimney fire, the chimney must be inspected and approved by a certified Chimney Sweep before reuse. After each annual inspection, maintenance, and cleaning, the certified Chimney Sweep must fill out and date the appropriate section of the warranty card provided with the chimney liner.

LIMITATIONS ON INTERNET SALES: Notwithstanding any other terms or conditions of this Limited Lifetime Warranty, DuraVent provides no warranty for the following specific products if such products are not installed by a qualified professional installer: DuraTech®, DuraTech® DTC, DuraTech® Premium, DuraPlus HTC®, DuraChimney® II, PelletVent Pro®, DirectVent Pro®, FasNSeal®, FasNSeal® W2, FasNSeal® Flex,

and PolyPro®, and DuraVent's relining products including DuraLiner®, DuraFlex® (SW, Pro, 316, 304), and Ventinox®. For purposes of this warranty, a trained professional installer is defined as one of the following: licensed contractors with prior chimney installation experience, CSIA Certified Chimney Sweeps, NFI Certified Specialists, or WETT Certified Professionals.

DuraVent must be notified and given the opportunity to inspect defective product prior to replacement under the terms of this limited lifetime warranty. All warranty claims must be submitted with proof of purchase. Labor and installation costs are not covered under this warranty. To obtain warranty service contact: DuraVent Warranty Service, 877 Cotting Ct., Vacaville CA 95688, or call 800-835-4429.

WHERE LAWFUL, DURAVENT DISCLAIMS ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL DURAVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES OR DIRECT OR INDIRECT LOSS OF ANY KIND, INCLUDING BUT NOT LIMITED TO PROPERTY DAMAGE AND PERSONAL INJURY. DURAVENT'S ENTIRE LIABILITY IS LIMITED TO THE PURCHASE PRICE OF THIS PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON IMPLIED WARRANTIES, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

For the most up-to-date installation instructions, see [www.duravent.com](http://www.duravent.com)

REV 11.28.17

Manufactured in Vacaville CA

# DuraVent®

[www.duravent.com](http://www.duravent.com) | 800-835-4429

L209\_810007492\_DV Limited Lifetime Warranty\_11-28-2017



## **WARRANTY**

This product has a limited lifetime warranty. Please read the warranty to be familiar with its coverage.

Retain this manual. File it with your other documents for future reference.

## **PRODUCT REFERENCE INFORMATION**

Please contact Duravent for the phone number of your nearest Duravent dealer who will answer your questions or address your concerns.

Normally, all parts should be ordered through your Duravent distributor or dealer. Parts will be shipped at prevailing prices at time of order.

When ordering repair parts, always give the following information:

1. The model number of the vent system.
2. The part number.
3. The description of the part.
4. The quantity required.
5. The installation date of the chimney system.

If you encounter any problems or have any questions concerning the installation or application of this system, please contact your dealer.

# **DuraVent<sup>®</sup>**

**800-835-4429 | [www.duravent.com](http://www.duravent.com)**

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Duravent reserves the right to make changes at any time, without notice, in design, materials, specifications, prices.  
Consult your local distributor for chimney system code information.