

EXCEL BLACK LABEL FACTORY BUILT CHIMNEY - INSTALLATION AND MAINTENANCE INSTRUCTIONS

A MAJOR CAUSE OF CHIMNEY RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACE) TO COMBUSTIBLE MATERIALS. IT IS OF UPMOST IMPORTANCE THAT THIS CHIMNEY BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

WARNING: There is a major risk of fire if loose fill insulation comes in contact with the chimney. It is particularly important to ensure that there is **NEVER** any insulation above the radiation shield in the attic.

This chimney is intended for use with solid, liquid and gas fired appliances, including wood fired stoves, fireplaces and furnaces. It is not intended for use in positive internal pressure applications.

The chimney should be the size recommended by the appliance manufacturer.

Use only ICC Model EXCEL /EXCEL-X (Black Label) components with a **black UL certification label**. Failure to do so will void the certification and warranty of the product. **These Installation instructions are for the new chimney sections with higher density insulation (EL-X, ELA18-X, EE15-X, EE30-X, EE45-X, ETI-X) as well as the NEW component design. Gaps at the building envelope between components and the chimney can be sealed with high temperature silicone or aluminum tape. See Parts Compatibility Chart for detailed information (next page).**

Keep these installation and operating instructions in a safe location for future reference. Contact local building or fire officials about restrictions and installation inspection in your area.

EXCEL-X has been tested and listed to the UL-103HT and ULC-629 chimney standards by Underwriter Laboratories UL file # : MH16722.



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FOR USA AND CANADA ONLY

Compatibility between Current EXCEL and new EXCEL-X design

ICC is introducing significant improvements to the EXCEL product line. This document presents these improvements and explains the differences between the old components and the new ones. These instructions also highlight the compatibility between old and new components. With the new system, the radiation shield tubes are no longer required for Canadian installations. All supports and radiation shields are insulated, and it is possible to seal penetrations at the building envelope with silicone. (refer to detailed installation instructions *XL-X-UL_2026-02*)

- What's new:**
- **New pipe section with higher density insulation**
 - **New Insulated reduced clearance round and square supports**
 - **New insulated wall radiation shield**
 - **Improved insulated firestops**

To clearly differentiate the parts, NEW EXCEL-X components will have a -X suffix added to the part code (see parts list in black below). New EXCEL-X components will also have a single black certification label on the part as opposed to the white label for the current EXCEL parts. Packaging labels for the new EXCEL-X parts will be metallic gold instead of orange to easily identify the new parts in your warehouse and installation site. To benefit from the improvements of the new design, the installation will have to be done with new EXCEL-X components and new vent pipes with a single black label and -X codes as listed in the right column in the table below. Other components not listed in the table below will fit both systems and will have both white and black certification labels. (see full compatible parts list at the end of this document)

To facilitate the transition, it will also be possible to use the new EXCEL-X vent pipes (black labeled -X lengths, elbows and tees) with the old components (see middle column in table below). Installations combining old components and new vent pipes must follow the old installation method requiring the radiation shield tubes and cannot have sealant at the building envelope (see *XLCND-II_2025-03* for Canada *XLUSA-II_2025-03* for USA). As of June 2025, old components will be fitted with both black and white labels to highlight that they can be used with old lower density insulated vent pipes with a white labels and new vent pipes with a black label.

Excel and Excel-Black Label Compatibility Chart

EXCEL PIPES WITH EXCEL COMPONENTS			EXCEL-X PIPES WITH EXCEL COMPONENTS			EXCEL-X PIPES AND EXCEL-X COMPONENTS		
Old EXCEL chimney sections (White labels)			New EXCEL-X chimney sections (Black Label)			New EXCEL-X chimney sections (Black Label)		
EL	Chimney Length		EL-X	Chimney Length		EL-X	Chimney Length	
ELA18	Adjustable Length		ELA18-X	Adjustable Length		ELA18-X	Adjustable Length	
EE15	Elbows 15°		EE15-X	Elbows 15°		EE15-X	Elbows 15°	
EE30	Elbows 30°		EE30-X	Elbows 30°		EE30-X	Elbows 30°	
EE45	Elbows 45°		EE45-X	Elbows 45°		EE45-X	Elbows 45°	
ETI	90° Tee		ETI-X	90° Tee		ETI-X	90° Tee	
Old EXCEL components (White and Black labels)			Old EXCEL components (White and Black labels)			New EXCEL-X Components (Black labels only)		
ETC	Tee Cap		ETC	Tee Cap		ETC-X	Tee Cap Insulated	
EITC	Tee Cap Insulated		EITC	Tee Cap Insulated		ERDSI-X	Round Support Insulated	
ERDS	Round Support		ERDS	Round Support				
ERDSI	Round Support Insulated		ERDSI	Round Support Insulated				
ERDSE	Round Support Extension		ERDSE	Round Support Extension				
ESS	Square Support		ESS	Square Support		ESSI-X	Square Support Insulated	
ESS+EIS	Square Support + Insulation sleeve		ESS+EIS	Square Support + Insulation sleeve				
ESSE	Square Support Extension		ESSE	Square Support Extension		EWRSI-X	Wall Radiation Shield Insulated	
EWRS	Wall Radiation Shield		EWRS	Wall Radiation Shield		ERSI-X	Radiation Shield	
EWRSI	Wall Radiation Shield Insulated		EWRSI	Wall Radiation Shield Insulated		ERSCI-X	Radiation Shield for Cathedral Ceiling	
ERS / ERSA	Radiation Shield		ERS / ERSA	Radiation Shield		ESC-X	Universal Collar Oversized	
ERSC / ERSCA	Radiation Shield for Cathedral Ceiling		ERSC / ERSCA	Radiation Shield for Cathedral Ceiling				
ESC			All Storm Collars are being gradually replaced by the new ESC-X version which is slightly wider to accommodate Black Label Radiation Shields.					
Follow these installation instructions			Follow these installation instructions			Follow these installation instructions		
Canada	XLCND-II_2025-12		Canada	XLCND-II_2025-12		Canada		
USA	XLUSA-II_2025-03		USA	XLUSA-II_2025-03		USA		
Use tubes for Canadian installations and no sealing allowed at the building envelope			Use tubes for Canadian installations and no sealing allowed at the building envelope			No tubes needed for Canadian installations and can be sealed at the building envelope		
All other parts not listed in this table are compatible with all 3 systems configurations								

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EXCEL-X TECHNICAL SPECIFICATIONS

Exterior (casing):		.016" Type 434 Stainless Steel		
Interior (flue):		.016" Type 304 Stainless Steel		
Insulation:		ICC "Thermoplus" Blanket		
Maximum continuous flue gas temperature:		650°C	1200°F	
Brief forced firing:		925°C	1700°F	
Tested to: (3 X 30 minutes)		1150°C	2100°F	
Inside Diameter	5 Inch	6 Inch	7 Inch	8 Inch
Outside diameter	7"	8"	9"	10"
Weight/Foot (lb/ft.)	4.3	4.9	5.6	6.3
Clearances to combustibles	2" or as established by factory built supports and firestops			
Rough Opening Required				
Round support (ERDSI-X)	10" x 10"	10" x 10"	11" x 11"	12" x 12"
Square support (ESSI-X)	N/A	10" x 10"	11" x 11"	12" x 12"
Roof support (ESR)	11" X 11"	12" X 12"	13" X 13"	14" X 14"
Offset support (EOS)	11" X 11"	12" X 12"	13" X 13"	14" X 14"
Radiation shields (ERSI-X)	12" X 12"	12" X 12"	13" X 13"	14" X 14"
Wall radiation shield (EWRSI-X)	12" X 12"	12" X 12"	13" X 13"	14" X 14"
Radiation shield cathedral (ERSCI-X)	12" X 12"	12" X 12"	13" X 13"	14" X 14"
Maximum Support Capacity				
Round support (ERDSI-X)	55'	48'	42'	38'
Square support (ESSI-X)	N/A	51'	44'	39'
Roof support (ESR)	36'	32'	28'	25'
Wall support (EWS)	43'	38'	33'	29'
Offset support (EOS)	30'	27'	23'	21'
Extended wall support (EWSE)	25'	22'	19'	17'
Radiation shields must be used at all floor joist and ceiling areas				

GENERAL INFORMATION

CREOSOTE AND SOOT - Formation and need for removal

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.

CELLULOSE INSULATION - WARNING

Cellulose insulation is combustible and is often made from old newspapers or other cellulose materials. If cellulose insulation contacts a hot chimney, it can smolder and potentially set fire to wood framing or other combustibles nearby. Areas requiring “air space” around the chimney must be void of all insulation and debris, but extra precaution should be taken to ensure they are void of cellulose insulation. Where insulation is present, EXCEL support boxes and radiation shields are required to be installed with a storm collar on top to prevent insulation from falling into required air spaces. **If cellulose is blown in after the support box / radiation shield is installed, there should be a visual inspection to ensure that no cellulose is inside the support box / radiation shield or within 2” of any exposed chimney components.**

COAL

Some coals contain large quantities of Sulphur (up to 7%). When coal is burned, Sulphur and coal ash are deposited in the chimney flue. This deposit combines with moisture to form a highly corrosive acid (Sulphuric Acid).

In order to protect your chimney, we recommend that you:

1. Burn only low Sulphur coals (less than 1% Sulphur).
2. Have your chimney cleaned within 48 hours of shutting down your stove at the end of the heating season. Be certain that all the soot is removed.

WOOD AND COAL STOVES

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

1. Choose a stove that has a label of a recognized Testing Laboratory (such as WH, UL, ULC, CSA). The EPA approved, low emissions stoves are highly recommended.
2. Connect only one solid fuel burning appliance to a chimney. Do not connect an oil or gas burning appliance to a chimney venting a solid fuel burning appliance.
3. Never over fire your stove. If any part of the stove or stove pipe is glowing red, then you are over firing. Immediately close the stove's damper until the system cools. The high temperatures caused by over firing 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 500°F. This will maximize efficiency while minimizing condensation and creosote formation.
6. Do not burn sea driftwood. Salt is highly corrosive to all types of stainless steel. Do not burn treated lumber.

OPERATION AND MAINTENANCE

KEEP YOUR CHIMNEY CLEAN. 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. From this, you will learn how often it will be necessary to clean your chimney.
2. THE CHIMNEY SHOULD BE INSPECTED AT LEAST ONCE EVERY TWO MONTHS DURING THE HEATING SEASON to determine if creosote or soot has built up. When a maximum of 1/4" (3mm) of creosote or soot has accumulated, it should be removed to reduce the risk of a chimney fire.
3. Have your chimney cleaned by a qualified chimney sweep. If you want to clean your chimney yourself, then clean your chimney using a properly fitting nylon or steel brush. Do not use a brush that will scratch the stainless steel interior of the chimney. Use of an oversize brush may damage the 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.

CHIMNEY FIRES

If you are having a chimney fire, follow these steps:

1. Close all heater doors and combustion air controls. For fireplaces, block the fireplace opening with a non-combustible material (such as a steel sheet).
2. Alert your family to the possible danger.
3. If you require assistance, alert your fire department.
4. If possible, use a dry chemical fire extinguisher, baking soda or sand to control the fire. Do not use water as it may cause a dangerous steam explosion.
5. Watch for smoldering or fire on combustibles next to the stove, stove pipe and chimney. Check outside to ensure that sparks and hot embers coming out of the chimney are not igniting the roof.
6. Do not use the stove again until your chimney and stove pipe have been inspected by a qualified chimney sweep or Fire Department Inspector.

INSTALLATION

1. The chimney is intended for use with wood heating and other low-heat appliances.
2. A chimney venting a fireplace or an incinerator shall not vent any other appliance.
3. The clearance between single wall stove pipe and unprotected combustible material must not be less than 18" (reference National Building Codes, NFPA 211 and CSA-B365).

The distance between a vertical stove pipe and the ceiling may be less than 18" when it is installed with an EXCEL support. The reduced clearance in this area has been confirmed as part of the chimney safety testing.

The distance between the horizontal stove pipe and a vertical wall may be less than 18" where the insulated chimney passes horizontally through the wall. The distance will be determined by the Insulated Wall Radiation Shield (EWRSI-X).

4. The maximum height of an unguyed chimney above the roof is 5 feet.
5. 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.
6. **Do not fill the air space** around the chimney with insulation or any other material. Do not add or modify the factory-built supports or radiation shields with insulation. This could cause adjacent combustibles to overheat.

Do not allow sawdust or construction debris to accumulate around the chimney. Clean all areas surrounding the chimney before closing up any enclosed areas.

7. The chimney shall extend at least 3 ft. above its point of penetration with the roof and at least 2 ft. higher than any wall, roof or adjacent building within 10 ft. of it. For chase installations, the chimney must extend at least 8" above the top of the chase.
8. The following does not apply to installation in single and two-family dwellings:

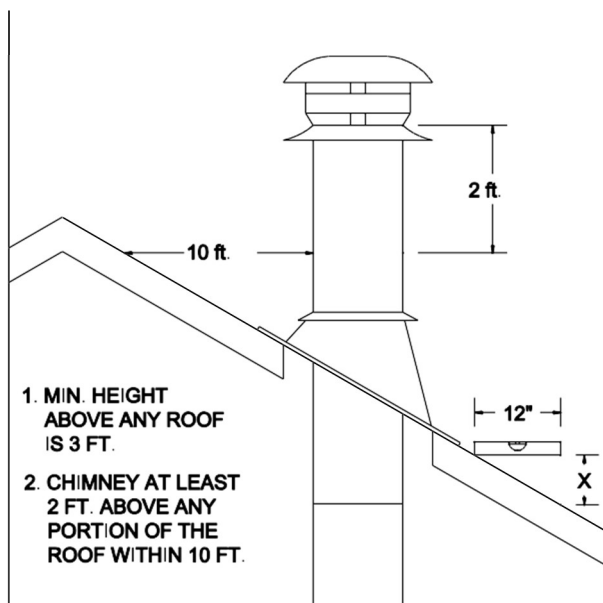
Factory built chimneys which extend through any story above that on which the connected appliance is located are to be provided with enclosures having a fire resistance rating equal to or greater than that of the floor or roof assemblies through which they pass.

FACTORY BUILT FIREPLACE

When Excel is approved with a factory-built fireplace, the chimney and fireplace are tested in combination as a complete system. It is not possible to include specific installation instructions for each make and model of fireplace in these instructions; you must follow the instructions included with the fireplace you are installing.

CHIMNEY HEIGHT

The minimum height of the chimney above a roof required is the same for all support styles and sizes. The diagram below shows the minimum chimney height as required by code. A quick way to calculate this dimension is to multiply the vertical rise per 12" of horizontal distance (X in the diagram) by 10 and add 24". When the chimney is installed within 10' of the peak, it must clear the peak by 24". The minimum chimney height is 3'.



We recommend that our products be installed and serviced by professionals who are certified in

the U.S. by NFI (National Fireplace Institute) or in Canada by WETT (Wood Energy Technical Training).



**Wood Energy
Technical Training**
www.wettinc.ca

INSTALLATION INSTRUCTIONS

TYPICAL INSTALLATIONS - Flat ceiling

If the support is installed in a ceiling with an attic directly above, the support also acts as the attic radiation shield when installed with a universal storm collar (ESC-X for Round Supports, ESQSC for Square Supports).

1. Locate the chimney in a convenient place as near as possible to the appliance outlet. Cut and frame the holes in the floor, ceiling and roof where the chimney will pass. Refer to the technical specifications on page 4 to determine the required rough opening for the support model and size you are installing.

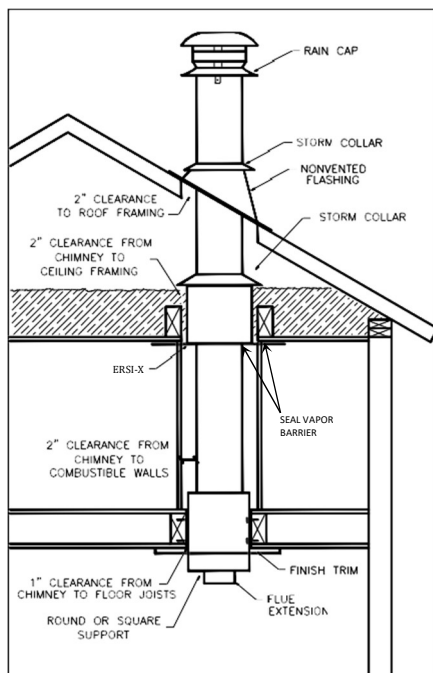
NOTE - Look Up - The round and square supports are designed to protect the surrounding combustible materials, and as a result, they permit 1" clearance from the chimney to combustible framing - in the area that they protect. When these supports are installed in a roof truss, ensure that the chimney has 2" clearance at the top of the truss. This may require you to block out the support at the bottom. Another option is to install a support extension (see page 24). Trim the support extension flush with the roof, this will permit the chimney to pass within 1" of the truss.

2. Install an Insulated Square Support (ESSI-X) or an Insulated Round Support (ERDSI-X). See support Installation section for detailed installation procedure on page 20.
3. Fasten the Flue Extension (EX) to the first length of chimney with the three screws provided. Place the first section of chimney into the support with the flue extension protruding through the hole in the support. When installing additional sections of chimney, line up the vertical seams to ensure that the pre-punched screw holes line up with the slots in the outside casing. Screw the Lengths together with the provided screws.

If the chimney passes through additional floors above the support, follow instruction 4. If the chimney passes directly into the attic without going through another floor, proceed to instruction 5.

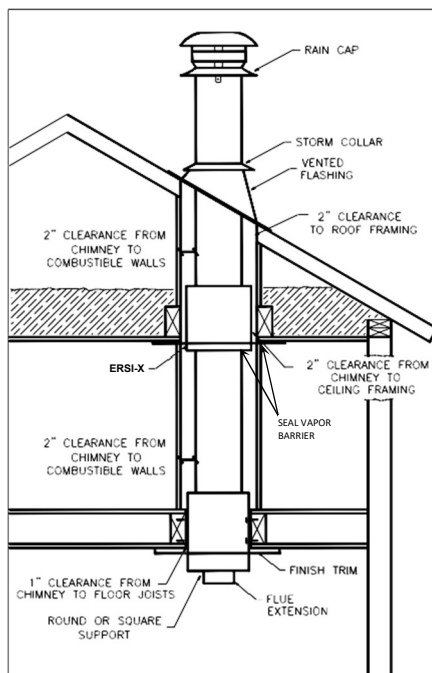
4. Install additional chimney lengths as required, making sure that you install a Radiation Shield (ERSI-X) where the chimney penetrates the ceiling - the ERSI-X should be installed from the bottom, screw or nail the ERSI-X solidly to the framing.
5. It is possible to seal all penetrations at the building envelope to ensure continuity of the vapor barrier. Gaps between the vapor barrier and any wall thimble, firestop, or ceiling support components can be sealed

UNENCLOSED ATTIC



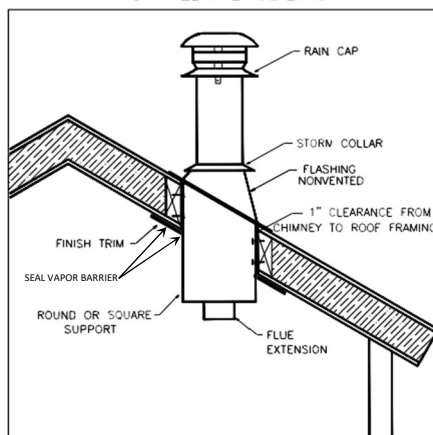
DRAWING 1

ENCLOSED ATTIC



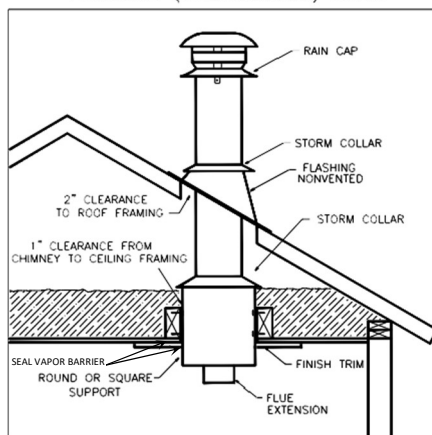
DRAWING 2

CATHEDRAL CEILING



DRAWING 3

REGULAR (UNENCLOSED) ATTIC



DRAWING 4

using high temperature silicone caulking or metallic tape such as aluminum tape. Gaps between the outer casing of the chimney and firestops can also be sealed using high temperature silicone caulking rated for 260°C/500°F continuous operation (as ADSEAL 4706-3 High temperature silicone adhesive sealant or similar).

6. A) IF THE **CHIMNEY IS NOT ENCLOSED IN THE ATTIC (Drawings 1 or 4 on page 10)**: Install a storm collar on top of the Support or radiation shield. Use the ESC-X storm collar for round supports and radiation shields. Use the ESQSC storm collar for square supports. Make sure the storm collar is in contact with the radiation shield. This will prevent loose insulation from falling into the area between the chimney and the support or radiation shield. Install a regular roof flashing. Go to instruction 7.

B) IF THE **CHIMNEY IS ENCLOSED IN THE ATTIC (Drawing 2 on page 10)**: Install a radiation shield at the attic joist. Continue installing chimney sections up through the roof opening and install a vented flashing on the roof.

7. Seal the joint between the roof and the flashing with roofing tar or silicone. For sloping roofs, place the flashing under the upper shingles and on top of the lower shingles -approximately half of the flashing should be under the shingles. Seal the joint between the roof and the flashing with roofing tar or silicone. Nail the flashing to the roof using roofing nails. Place the universal Storm Collar (ESC-X) over the chimney and the flashing. Tighten it in place. Caulk the joint between the chimney and storm collar with silicone. **WARNING:** When using a ventilated flashing, do **not** caulk, seal or obstruct any of the ventilating openings on the flashing. This may increase the risk of fire.
8. Continue adding chimney sections until the required chimney height is reached. See the drawing on page 8 to determine the correct height.
9. If the chimney height above the roof exceeds 5 feet, then a Roof Brace (ERB) must be installed.
10. Fit the rain cap to the top of the chimney. Screw the four metal screws provided through the straps and into the top chimney length.

CATHEDRAL CEILINGS

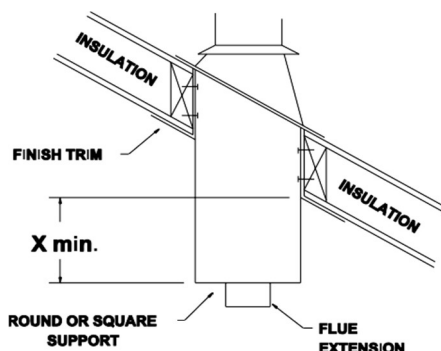
If your home has a cathedral ceiling (no attic space between the ceiling and the roof), install the chimney and support as follows.

1. Situate the chimney in a convenient location as near as possible to the appliance outlet. Cut and frame a hole in the roof for the support. The sides of this hole must be vertical (see page 4 for hole size).
2. Place the support in the opening. Lower it to the correct height as determined by the table and diagram below. Install a Square Support (ESSI-X) or an Insulated Round Support (ERDSI-X). See the support Installation section for detailed installation procedure on page 20. 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.

Place the trim collar around the support and fasten it to the ceiling using the screws provided. To ensure continuity at the building envelope, gaps between the vapor barrier and the support (box or collar) can be sealed using high-temperature silicone caulking (as ADSEAL 4706-3 High-temperature silicone adhesive sealant or similar) or metallic tape such as aluminum tape.

3. Attach the flue extension (found in the support box) to the bottom of the first chimney length using the 3 metal screws provided. Put this chimney length in the support with the flue extension protruding through the support.
4. Use a regular roof flashing. Put the roof flashing in place. Place the flashing under the upper shingles and on top of the lower shingles approximately half of the flashing should be under the shingles. Seal the joint between the roof and the flashing with roofing tar or silicone. Nail the flashing to the roof using roofing nails. Place the universal storm collar (ESC-X) over the chimney and flashing. Caulk the joint between the chimney and collar with silicone caulking.
5. Put the remaining required lengths of chimney in place aligning the seams to ensure pre-drilled holes align. Fasten the lengths together using three metal screws at each joint (provided with the chimney). If the chimney extends more than 5 feet above the roof, install a roof brace.
6. Fit the rain cap to the top of the chimney. Screw the four metal screws provided through the straps and into the top chimney length.

SLOPE	X
0/12 - 2/12	3"
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"



OFFSET CHIMNEY

If it is necessary to offset the chimney in order for it to pass through an upstairs cupboard or to clear a joist, do this by using 15° or 30° insulated elbows if the installation is in the USA.

For Canada only : The 45° insulated elbows can also be used to offset the chimney **only** in Canadian installations.

The maximum number of elbows permitted is four (typically this would consist of two sets of an offset and a return).

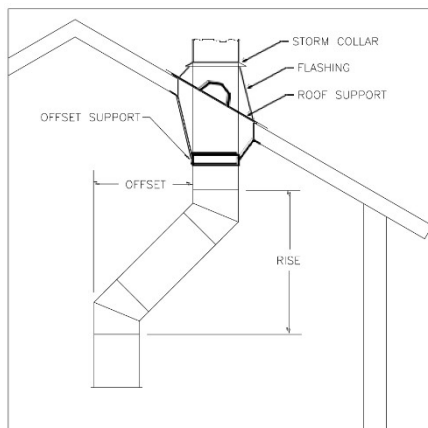
To determine the parts required for your installation refer to the drawing below and the offset tables on page 14 and 15.

You may find it convenient to install an adjustable length (ELA18-X) between the elbows when combined with a fixed length. This will allow you to offset the exact distance you require. The offset table on page 14 should be used when no adjustable length is required. Use the table on page 15 when an adjustable length is required.

The maximum length of unsupported offset chimney is 8'. If the offset chimney is longer than 8', then it must be supported at 6' intervals using an offset support (EOS).

When you reach the height at which the elbow will be installed, proceed as follows:

1. Install the insulated elbow on the chimney length. Turn it in the required direction and fasten it to the chimney with the 3 metal screws provided. Since the offset direction varies from installation to installation the pre-punched holes will not line up.
2. Place the required length of chimney on the elbow. Fasten it to the elbow with the three metal screws provided.
3. Use another elbow to turn the chimney vertically. Again, secure the elbow to the chimney length using three metal screws.
4. Install the remaining chimney as described in the support instructions.
5. An Offset, Wall or Roof Support must be installed above each offset (two elbows) to support the chimney above the offset. This support may be installed on any convenient location on the vertical run above the offset.



EXCEL-X OFFSET TABLE - Use this table if you are not installing an adjustable length between the elbows.

LENGTH BETWEEN OFFSETS	15° Elbows		30° Elbows		45° Elbows (Canada Only)	
	RISE	OFFSET	RISE	OFFSET	RISE	OFFSET
5 INCH Ø						
NO LENGTH	9 1/4	1 1/4	10 1/2	2 3/4	11 1/4	4 3/4
6" Length	13 1/4	2 1/4	14 1/4	5	14 1/4	7 3/4
12" Length	19	3 3/4	19 1/4	8	18 1/2	12
18" Length	25	5 1/2	24 1/2	11	22 3/4	16 1/4
24" Length	30 3/4	7	29 3/4	14	27	20 1/2
48" Length	53 3/4	13 1/4	50 1/2	26	44	37 1/2
24" + 12"	40 1/2	9 1/2	38 3/4	19	34 1/4	27 3/4
48" + 12"	63 3/4	15 3/4	59 1/2	31	51 1/4	44 3/4
48" + 18"	69 1/2	17 1/2	64 1/2	34	55 1/2	49
48" + 24"	75 1/4	19	69 3/4	37	59 3/4	53 1/4
48" + 24" + 12"	85 1/4	21 1/2	78 3/4	42 1/4	67	60 1/2
48" + 48"	98 1/2	25 1/4	90 1/2	49	76 3/4	70
6 INCH Ø						
NO LENGTH	9 1/2	1 1/4	11	3	12	5
6" Length	13 1/2	2 1/4	14 3/4	5	15	8
12" Length	19 1/4	4	19 3/4	8	19 1/4	12 1/4
18" Length	25 1/4	5 1/2	25	11	23 1/2	16 1/2
24" Length	31	7	30 1/4	14	27 3/4	20 3/4
48" Length	54	13 1/4	51	26	44 3/4	37 3/4
24" + 12"	40 3/4	9 3/4	39 1/4	19 1/4	35	28
48" + 12"	64	15 3/4	60	31 1/4	52	45
48" + 18"	69 3/4	17 1/2	65	34 1/4	56 1/4	49 1/4
48" + 24"	75 1/2	19	70 1/4	37 1/4	60 1/2	53 1/2
48" + 24" + 12"	85 1/2	21 3/4	79 1/4	42 1/4	67 3/4	60 3/4
48" + 48"	98 3/4	25 1/4	91	49 1/4	77 1/2	70 1/2
7 INCH Ø						
NO LENGTH	9 3/4	1 1/4	11 1/2	3	12 3/4	5 1/4
6" Length	13 3/4	2 1/2	15 1/4	5 1/4	15 3/4	8 1/4
12" Length	19 1/2	4	20 1/4	8 1/4	20	12 1/2
18" Length	25 1/2	5 1/2	25 1/2	11 1/4	24 1/4	16 3/4
24" Length	31 1/4	7	30 3/4	14 1/4	28 1/2	21
48" Length	54 1/2	13 1/4	51 1/2	26 1/4	45 1/2	38
24" + 12"	41	9 3/4	39 3/4	19 1/4	35 3/4	28 1/4
48" + 12"	64 1/4	16	60 1/2	31 1/4	52 3/4	45 1/4
48" + 18"	70	17 1/2	65 1/2	34 1/4	57	49 1/2
48" + 24"	75 3/4	19	70 3/4	37 1/4	61 1/4	53 3/4
48" + 24" + 12"	85 3/4	21 3/4	79 3/4	42 1/2	68 1/2	61
48" + 48"	99	25 1/4	91 1/2	49 1/4	78 1/4	70 3/4
8 INCH Ø						
NO LENGTH	10	1 1/4	12	3 1/4	13 1/2	5 1/2
6" Length	14	2 1/2	15 3/4	5 1/4	16 1/2	8 1/2
12" Length	19 3/4	4	20 3/4	8 1/4	20 3/4	12 3/4
18" Length	25 3/4	5 1/2	26	11 1/4	25	17
24" Length	31 1/2	7	31 1/4	14 1/4	29 1/4	21 1/4
48" Length	54 3/4	13 1/4	52	26 1/4	46 1/4	38 1/4
24" + 12"	41 1/4	9 3/4	40 1/4	19 1/2	36 1/2	28 1/2
48" + 12"	64 1/2	16	61	31 1/2	53 1/2	45 1/2
48" + 18"	70 1/4	17 1/2	66	34 1/2	57 3/4	49 3/4
48" + 24"	76 1/4	19	71 1/4	37 1/2	62	54
48" + 24" + 12"	86	21 3/4	80 1/4	42 1/2	69 1/4	61 1/4
48" + 48"	99 1/4	25 1/4	92	49 1/2	79	71

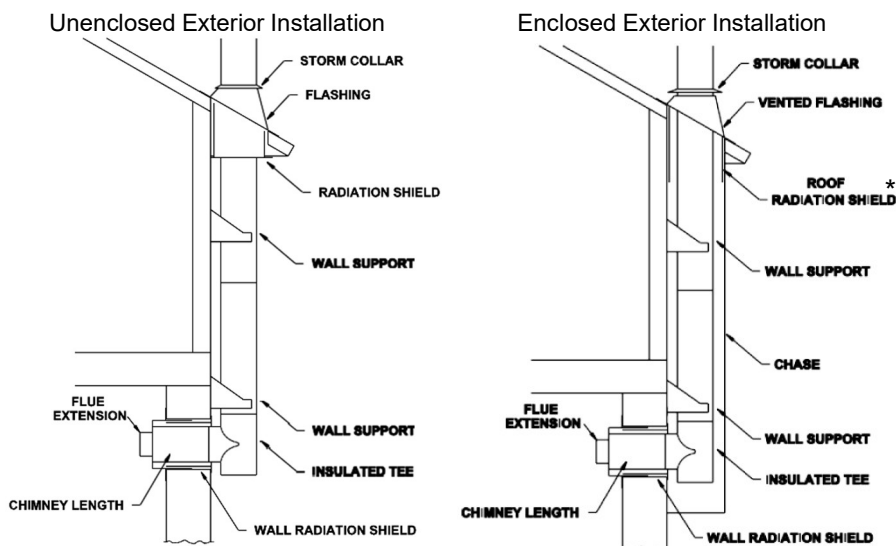
EXCEL-X OFFSET TABLE - Use this table when using an 18-inch Adjustable Length combined with a standard Length.

ADDITIONAL LENGTH BETWEEN OFFSETS	15° Elbows		30° Elbows		45° Elbows (Canada Only)	
	RISE	OFFSET	RISE	OFFSET	RISE	OFFSET
5 inch Ø						
6" Length	23 - 28 3/4	5 - 6 1/2	22 3/4 - 28	10--13	21 1/2 - 25 3/4	14 3/4 - 19
12" Length	28 3/4 - 34 1/2	6 1/2 - 8	28 - 33 1/4	13 - 16	25 3/4 - 30	19 - 23 1/4
18" Length	34 1/2 - 40 1/4	8 - 9 1/2	33 1/4 - 38 1/2	16 - 19	30 - 34 1/4	23 1/4 - 27 1/2
24" Length	40 1/4 - 46 1/4	9 1/2 - 11	38 1/2 - 43 1/2	19 - 22	34 1/4 - 38 1/2	27 1/2 - 31 3/4
48" Length	63 1/2 - 69 1/4	15 3/4 - 17 1/4	59 1/4 - 64 1/2	31 - 34	51 1/4 - 55 1/4	44 1/2 - 48 3/4
24" + 12"	50 1/4 - 56	12 1/4 - 13 3/4	47 1/4 - 52 1/2	24 - 27	41 1/2 - 45 3/4	34 1/4 - 39
48" + 12"	73 1/2 - 79 1/4	18 1/2 - 20	68 - 73 1/4	36 - 39	58 1/4 - 62 1/2	51 3/4 - 56
48" + 18"	79 1/4 - 85	20 - 21 1/2	73 1/4 - 78 1/2	39 - 42	62 1/2 - 66 3/4	56 - 60 1/4
48" + 24"	85 - 90 3/4	21 1/2 - 23	78 1/2 - 83 3/4	42 - 45	66 3/4 - 71	60 1/4 - 64 1/2
48" + 24" + 12"	95 - 100 3/4	24 1/4 - 25 3/4	87 1/4 - 92 1/2	47 1/4 - 50 1/4	74 - 78 1/4	67 1/2 - 71 3/4
48" + 48"	108 1/4 - 114	27 3/4 - 29 1/4	99 1/4 - 104 1/2	54 - 57	83 3/4 - 88	77 1/4 - 81 1/2
6 inch Ø						
6" Length	23 1/4 - 29	5 - 6 1/2	23 1/4 - 28 1/2	10--13	22 1/4 - 26 1/2	15 - 19 1/4
12" Length	29 - 34 3/4	6 1/2 - 8	28 1/2 - 33 3/4	13 - 16	26 1/2 - 30 1/2	19 1/4 - 23 1/2
18" Length	34 3/4 - 40 1/2	8 - 9 1/2	33 3/4 - 39	16 - 19	30 1/2 - 34 3/4	23 1/2 - 27 3/4
24" Length	40 1/2 - 46 1/2	9 1/2 - 11 1/4	39 - 44	19 - 22	34 3/4 - 39	27 3/4 - 32
48" Length	63 3/4 - 69 1/2	15 3/4 - 17 1/4	59 3/4 - 65	31 - 34	51 3/4 - 56	44 3/4 - 49
24" + 12"	50 1/2 - 56 1/4	12 1/4 - 13 3/4	47 3/4 - 53	24 1/4 - 27 1/4	42 - 46 1/4	35 - 39 1/4
48" + 12"	73 3/4 - 79 1/2	18 1/2 - 20	68 1/2 - 73 3/4	36 1/4 - 39 1/4	59 - 63 1/4	52 - 56 1/4
48" + 18"	79 1/2 - 85 1/4	20 - 21 1/2	73 3/4 - 79	39 1/4 - 42 1/4	63 1/4 - 67 1/2	56 1/4 - 60 1/2
48" + 24"	85 1/4 - 91	21 1/2 - 23	79 - 84 1/4	42 1/4 - 45 1/4	67 1/2 - 71 3/4	60 1/2 - 64 3/4
48" + 24" + 12"	95 1/4 - 101	24 1/4 - 25 3/4	87 3/4 - 93	47 1/4 - 50 1/4	74 3/4 - 79	67 3/4 - 72
48" + 48"	108 1/2 - 114 1/4	27 3/4 - 29 1/4	99 3/4 - 105	54 1/4 - 57 1/4	84 1/2 - 88 3/4	77 1/2 - 81 3/4
7 inch Ø						
6" Length	23 1/2 - 29 1/4	5 - 6 1/2	23 3/4 - 29	10 1/4 - 13 1/4	22 3/4 - 27	15 1/4 - 19 1/2
12" Length	29 1/4 - 35	6 1/2 - 8	29 - 34 1/4	13 1/4 - 16 1/4	27 - 31 1/4	19 1/2 - 23 3/4
18" Length	35 - 40 3/4	8 - 9 1/2	34 1/4 - 39 1/2	16 1/4 - 19 1/4	31 1/4 - 35 1/2	23 3/4 - 28
24" Length	40 3/4 - 46 3/4	9 1/2 - 11 1/4	39 1/2 - 44 1/2	19 1/4 - 22 1/4	35 1/2 - 39 3/4	28 - 32 1/4
48" Length	64 - 69 3/4	15 3/4 - 17 1/2	60 1/4 - 65 1/2	54 - 57	52 1/2 - 56 3/4	45 - 49 1/4
24" + 12"	50 3/4 - 56 1/2	12 1/4 - 13 3/4	48 1/4 - 53 1/2	1 1/2 - 4 1/2	42 3/4 - 47	35 1/4 - 39 1/2
48" + 12"	74 - 79 3/4	18 1/2 - 20	69 - 74 1/4	36 1/4 - 39 1/4	59 3/4 - 64	52 1/4 - 56 1/2
48" + 18"	79 3/4 - 85 1/2	20 - 21 1/2	74 1/4 - 79 1/2	39 1/4 - 42 1/4	64 - 68 1/4	56 1/2 - 60 3/4
48" + 24"	85 1/2 - 91 1/4	21 1/2 - 23 1/4	79 1/2 - 84 3/4	42 1/4 - 45 1/4	68 1/4 - 72 1/2	60 3/4 - 65
48" + 24" + 12"	95 1/2 - 101 1/4	24 1/4 - 25 3/4	88 1/4 - 93 1/2	47 1/2 - 50 1/2	75 1/2 - 79 3/4	68 - 72 1/4
48" + 48"	108 3/4 - 114 1/2	27 3/4 - 29 1/4	100 1/4 - 105 1/2	54 1/4 - 57 1/4	85 1/4 - 89 1/2	77 3/4 - 82
8 inch Ø						
6" Length	23 3/4 - 29 1/2	5 - 6 1/2	24 1/4 - 29 1/2	10 1/4 - 13 1/4	23 1/2 - 27 3/4	15 3/4 - 20
12" Length	29 1/2 - 35 1/4	6 1/2 - 8	29 1/2 - 34 3/4	13 1/4 - 16 1/4	27 3/4 - 32	20 - 24 1/4
18" Length	35 1/4 - 41	8 - 9 3/4	34 3/4 - 40	16 1/4 - 19 1/4	32 - 36 1/4	24 1/4 - 28 1/2
24" Length	41 - 47	9 3/4 - 11 1/4	40 - 45	19 1/4 - 22 1/4	36 1/4 - 40 1/2	28 1/2 - 32 3/4
48" Length	64 1/4 - 70	15 3/4 - 17 1/2	60 3/4 - 66	31 1/4 - 34 1/4	53 1/4 - 57 1/2	45 1/4 - 49 1/2
24" + 12"	51 - 56 3/4	12 1/4 - 13 3/4	48 3/4 - 54	24 1/2 - 27 1/2	43 1/2 - 47 3/4	35 3/4 - 40
48" + 12"	74 1/4 - 80	18 1/2 - 20	69 1/2 - 74 3/4	36 1/2 - 39 1/2	60 1/2 - 64 3/4	52 1/2 - 56 3/4
48" + 18"	80 - 85 3/4	20 - 21 3/4	74 3/4 - 80	39 1/2 - 42 1/2	64 3/4 - 69	56 3/4 - 61
48" + 24"	85 3/4 - 91 1/2	21 3/4 - 23 1/4	80 - 85 1/4	42 1/2 - 45 1/2	69 - 73 1/4	61 - 65 1/4
48" + 24" + 12"	95 3/4 - 101 1/2	24 1/4 - 25 3/4	88 3/4 - 94	47 1/2 - 50 1/2	76 1/4 - 80 1/2	68 1/4 - 72 1/2
48" + 48"	109 - 114 3/4	27 3/4 - 29 1/2	100 3/4 - 106	54 1/2 - 57 1/2	86 - 90 1/4	78 - 82 1/4

The best place to install the adjustable length is immediately below the top elbow.
The adjustable length can then be adjusted to give you the offset you require.

NOTE: An adjustable length cannot be used immediately above an elbow, there must be a straight length below it.

THROUGH WALL INSTALLATION



*See text below for instructions for the use of Radiation Shield.

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

For concrete walls cut a hole slightly larger than the chimney. If the concrete wall has a wood wall inside it follow the instructions for a combustible wall.

For combustible walls cut and frame a hole corresponding to the rough opening required for Wall Radiation Shield (EWRSI-X) in the table on page 4.

2. Combustible wall:

From outside, put the exterior portion (the galvanized part with the square plate) of the wall radiation shield in the hole. Nail the shield in place using 4 - 2" nails or # 8 X 1 1/2" wood screws. Seal the joint between the shield and the wall with silicone caulking.

3. Assemble the Wall Support (EWS or EWSE) - follow instructions on page 27.
4. Fasten the required chimney length to the Tee side entrance. The horizontal chimney section must extend through the finished interior wall by at least 4 inches. In some cases, you may wish to use an adjustable length (ELA18-X) in combination with a short length for this purpose. Attach the flue extension (EX) - found in the EWRSI-X to the end of the horizontal chimney length using the 3 metal screws provided.

5. Fasten a chimney length to the top of the Tee.
6. The wall support should be installed on the first vertical chimney section above the Tee. Tighten the universal band locking bolt just enough to hold the wall support in place.
7. Install this assembly through the hole in the radiation shield so that the flue extension penetrates into the room.
8. Fasten the Wall Support brackets to the outside wall in a convenient location directly above the hole. Use 4 - #10 X 3" or larger screws. Ensure that the screws are fastened into a structural member and not only to the wall sheeting. If the stud locations do not line up properly you may wish to use a wall channel (EWC) - see instructions page 27. The Wall Support brackets are slotted to allow them to adjust in and out. Adjust the brackets so that the chimney is a minimum of 2" from the wall and parallel with it. Tighten the Wall Support collar around the chimney, then secure it using 3 metal screws.
9. Stack the next chimney length in place. Align the vertical seams; this will also align the screw holes. Fasten the lengths together using 3 metal screws. Continue installing lengths until you reach the roof or until the required overall height is achieved. Many installers prefer to screw two or three vertical lengths together in advance because it is easier to screw the chimney sections together in the open than when they are close to a wall.
10. Install another Wall Support at 8' intervals. The Wall Support should be adjusted to ensure the chimney is vertical and at 2" (or more) clearance to combustibles.
11. A) If the chimney is installed in a combustible chase, then a ventilated flashing (EVF) must be installed - see drawing on page 16.

B). **For Canada only:** If the chimney is installed in a combustible chase, then a roof radiation shield (ERRS) must be installed immediately below the flashing or chase top, and a ventilated flashing (EVF) must be installed.
12. If the chimney passes through the roof, cut a hole large enough to provide a 2" clearance between the chimney and the roof. Install a radiation shield (ERSI-X) from the bottom to seal the opening. Continue installing lengths as required.
13. Put the roof flashing in place. Seal the joint between the roof and the flashing with roofing pitch. 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 universal storm collar (ESC-X) over the chimney just above the flashing. Caulk the joint between the chimney and storm collar with silicone caulking. **WARNING** : When using a ventilated flashing, do **not** caulk, seal or obstruct any of the ventilating openings on the flashing. This may increase the risk of fire.

14. Continue adding chimney sections until the required chimney height is reached. See the drawing on page 8 to determine the correct height.
15. If the chimney extends more than 5' above the roof it should be secured to the roof using a Roof Brace (ERB).
16. Fit the rain cap to the top of the chimney. Screw the four metal screws provided through the straps and into the top chimney length. Install the spark screen if you wish to have a spark screen.
17. FROM INSIDE. Slide the black portion of the Insulated Wall Radiation Shield over the galvanized portion which was installed from the outside and push it until it stops against the chimney. The black interior portion of the Insulated Wall Radiation Shield must project into the room a minimum of 4". Install the round finish trim with the long black screws provided.

NOTES:

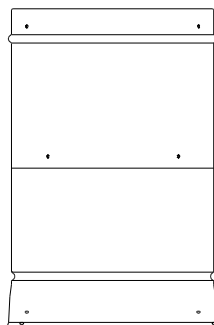
1. The chimney may be enclosed or un-enclosed. Always maintain 2" clearance to combustible materials. Do not fill the space around the chimney with insulation or any other material.
2. A wall support must be used to secure the chimney to the wall. Maximum distance between wall supports is 8 feet if the chimney is not enclosed.
3. The chimney must extend into the room at least 4 inches.
4. The distance between a single wall stovepipe and a parallel combustible wall or ceiling must not be less than 18". The distance between the horizontal stove pipe and the un-shielded vertical wall through which the insulated chimney passes is determined by the Wall Radiation Shield and can be less than 18".
5. If an exterior installation is to be enclosed, allow for access to the base of the Tee to facilitate cleaning. Use an insulated tee cap (ETC-X)
6. The minimum distance between the end of the chimney (tee cap) and any horizontal combustible (bottom of the chase) is 5".

ADJUSTABLE LENGTH (ELA18-X)

An adjustable chimney length is available for chimney installations that require exact lengths. An adjustable length cannot be installed immediately above a support, elbow or tee. It can only be installed above a straight length. When using the adjustable length the flue (inside) does not adjust, only the outside casing.

DO NOT SEPARATE THE EXTERIOR CASING. IT CANNOT BE RE-INSTALLED.

1. Determine the required length.
2. Remove the three screws from the outside casing of the adjustable length. Slide the two sections of the outer casing together until the required overall length is achieved.
3. Using the stainless steel screws provided fasten the two sections of outer casing together through the three pre-punched holes. The screws are self drilling and will make their own holes. Cut off the exposed insulation. The remaining insulation will compress enough to allow the next chimney section to connect. Do not cut the inner flue, it will slide inside the next chimney length.
4. To install the adjustable length slide the flue into the length below until the outside casing seats firmly in place. You may need to press firmly to compress the additional insulation. Fasten the lengths together using the 3 metal screws provided.



ACCESSORIES INSTALLATION

SUPPORTS

ROUND SUPPORT (ERDSI-X) & SQUARE SUPPORT (ESSI-X)

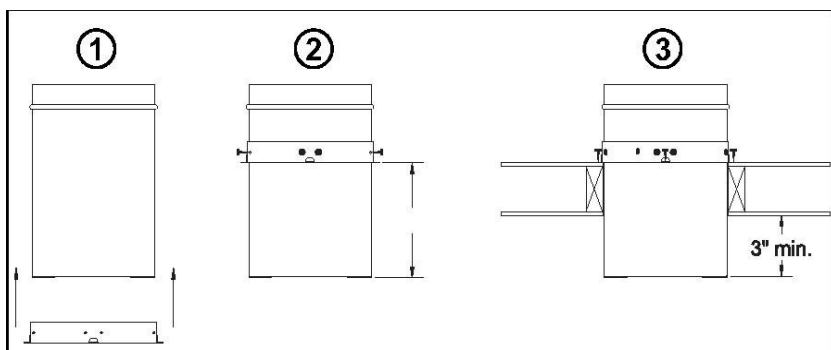
Typical round and square support installations are shown in drawings 1 through 4 on page 10. The clearance between the chimney and combustible material must not be less than 2" except for areas protected by the support. Do not fill this area with insulation. If the support is installed in a cathedral ceiling, follow the instructions for Cathedral Ceilings.

INSULATED ROUND SUPPORT (ERDSI-X)

The round support comes with a support collar. It can be installed using this collar (A) or screwed directly to the joist frame (B). Refer to the technical specifications on page 4 to determine the required rough opening.

A. Installation with Collar

Slide the support collar over the support, making sure the four tabs are pointing downwards - see drawing below. Before screwing the collar in place, you must measure to compensate for the thickness of the framing materials and ensure that the bottom of the support extends a minimum of 3" below the finished ceiling. Fasten the collar to the support with the self-tapping metal screws provided.



The tabs have been designed so that the support can be pushed up through the square framed opening from the bottom and then rotated 1/4 turn so that the tabs sit on top of the framing - the round trim collar is large enough to cover the square hole. Once all four tabs are sitting on the framing, it must be nailed or screwed in place through the holes in the tabs using a minimum #8 X 1 1/2" screws.

B. Installation with Screws

From below, push the support into the framed hole. The support must protrude at least 3" below the finished ceiling. Align the inner slots with the framing and screw the support to the framed joist using eight # 8 X 1 1/2" wood screws (2 per side). Place the Finish Collar around the support and fasten it to the ceiling using the two screws provided. It's recommended to drill pilot holes in the support before screwing it to the framed joist.

SQUARE SUPPORT INSTALLATION (ESSI-X)

The square support comes with angled brackets, which can be screwed to the outside of the support box and nailed to the surrounding framing as required (A). It can also be screwed directly to the joist frame (B). Refer to the technical specifications on page 4 to determine the required rough opening.

A. Installation with Angled brackets

Screw the angled brackets to the outside of the support using a minimum of four # 8 X 1/2" metal screws per bracket. Insert the Support in the opening from the top, ensuring that the bottom of the support extends a minimum of 3" below the finished ceiling. Nail or screw the brackets to the joist framing using 8 - 3" spiral nails or #8 X 1 1/2" wood screws. In some cases, these brackets may need to be trimmed (e.g.: to fit under a flashing).

B. Installation with screws

From below, push the support into the framed hole. The support must protrude at least 3" below the finished ceiling. Align the inner slots with the framing and screw the support to the framed joist using eight #8 X 1 1/2" wood screws (2 per side). Place the Finish Collar around the support and fasten it to the ceiling using the two screws provided. It's recommended to drill pilot holes in the support before screwing it to the framed joist.

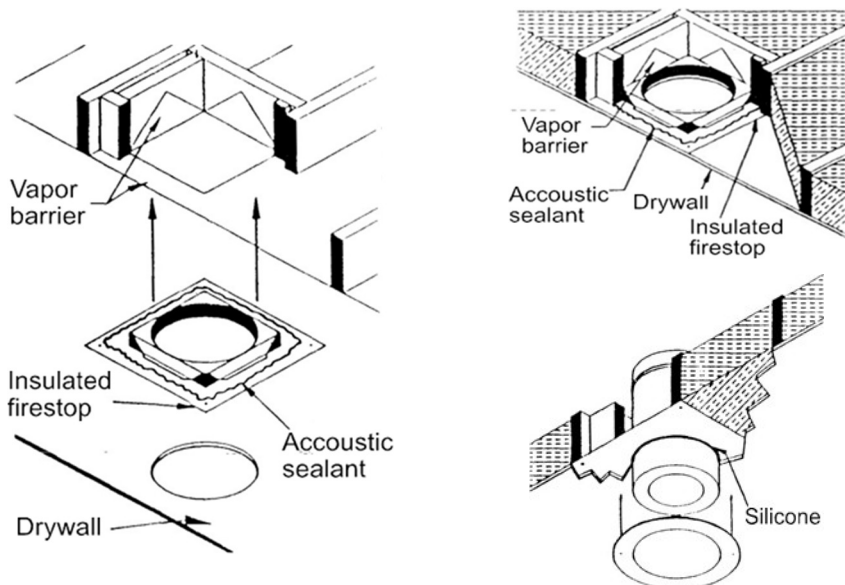
INSULATED FIRESTOP (RSI) FOR ROUND SUPPORT

An **optional** Insulated Firestop (RSI) may be used in conjunction with the Insulated Round Support (ERDSI-X) to provide more insulation at the building envelope if necessary.

1. Frame the opening for the support - see table in page 4 of the Excel-X installation instructions for the correct size.
2. Carefully cut an X in the vapor barrier so that it can be folded into the

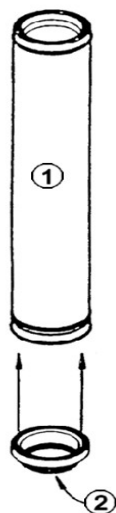
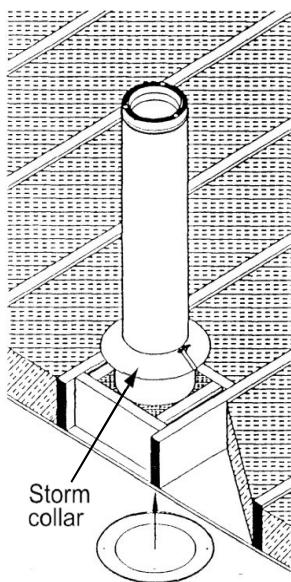
framed opening and fasten it.

3. Apply acoustic sealant to the insulated firestop. Be sure to place the sealant so that the screw holes in the firestop will be sealed. Push the insulated firestop up from the bottom so that the sealant is compressed against the vapor barrier. Fasten in place with four drywall nails or screws.



4. Apply the drywall and carefully cut a round hole to accommodate the round support, being careful not to pierce the vapor barrier.
5. Place the first chimney length (#1) on a flat surface with the female end facing upwards. Attach the flue extension (#2) using the 3 metal screws provided

NOTE: The drawing shows the chimney length as it is installed in the support, however it is easier to install the flue extension with the chimney section inverted.



6. You may insulate right up to the support inside the framed opening. Under no circumstances can insulation be permitted to come in contact with the chimney directly (eg: above the top of the support). If the insulation depth exceeds the height of the support, you must install a support extension (ERDSE) to keep the insulation away from the chimney.
7. Ensure that there is no debris or insulation between the chimney and the support. Install a storm collar immediately above the support to keep loose insulation and debris from falling into the support.
8. From inside the room, seal the joint between the support and the insulated firestop with silicone.
9. Install the trim collar - be sure to seal the screw holes with silicone.

SUPPORT EXTENSIONS ROUND (ERDSE) & SQUARE (ESSE)

Steep-pitched cathedral ceilings, or attics with greater than average insulation depth, may require the use of a support extension. This piece fits down inside the 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-inch overlap where the extension joins the support.

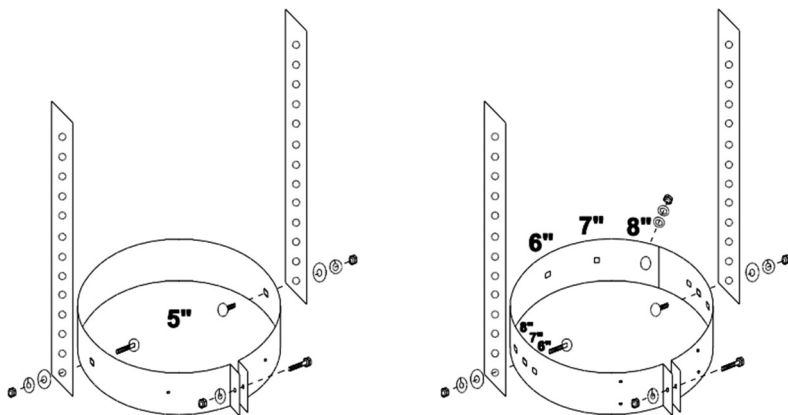
OFFSET SUPPORT (EOS)

This support is used for re-supporting a chimney above an offset.

Install the chimney and elbows according to the installation instructions. Install the support as follows:

See the table on page 4 to determine the minimum joist opening. The chimney must have 2" of clearance all around.

1. Assemble the band following the instructions below.
2. Bolt on the offset support straps - see diagram above.
3. Slip the support down over the chimney to a convenient location.
4. Tighten the collar around the chimney, then secure it by screwing three metal screws through the holes in the collar and into the chimney.
5. Attach the support straps to the floor or roof structure using two 3" nails or #10 X 2" wood screws per strap.
6. Continue installing the chimney.

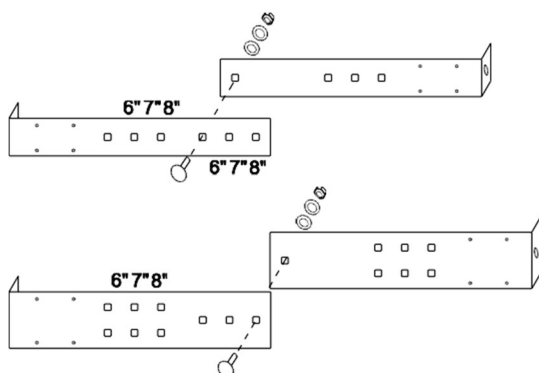


UNIVERSAL BAND AND ROOF SUPPORT BAND ASSEMBLY

The universal band is a sub-component of the following parts:

Wall Support (EWS) Roof Brace (ERB) Offset Support (EOS)

The Roof Support Band is a sub-component of the roof support and is assembled in the same manner as the universal band.



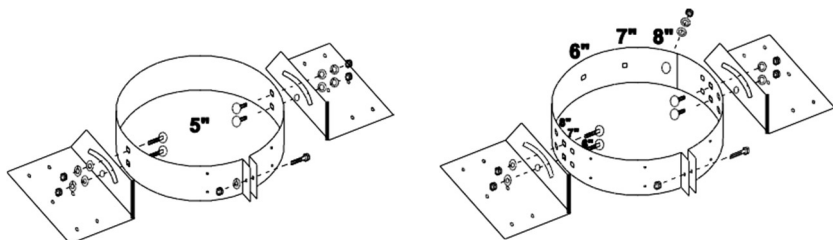
1. The universal band and the roof support band are shipped pre-assembled to fit 6" chimney. To install the bands on a 7" or 8" chimney carefully remove the three 1/4" X 1" elevator bolts (five bolts for a roof support) and replace them in the corresponding factory labeled holes for 7" or 8".

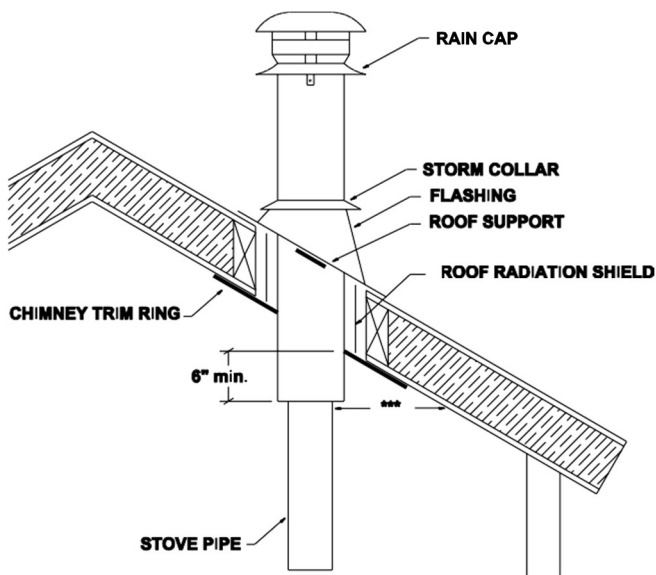
For 5"Ø chimney the band that come with the supports (wall, roof or offset) and with the roof brace is made to fit the outside diameter of the 5" chimney only.

2. Bend the band around the chimney section and secure with the 1/4" X 2" bolt, lock washer and nut provided. The band will bend to conform to the diameter of the chimney.

ROOF SUPPORT (ESR)

The roof support may be used to support the chimney on a flat or inclined roof.





***** MINIMUM DISTANCE 18" FOR SINGLE WALL STOVE PIPE
FOR SHIELDED CONNECTORS FOLLOW MANUFACTURER'S INSTRUCTIONS**

When using a roof support, the chimney must extend in to the room a minimum of 6 inches below a finished ceiling. You must also maintain the required horizontal clearance between the single or double wall connector and the combustible ceiling - see diagram above.

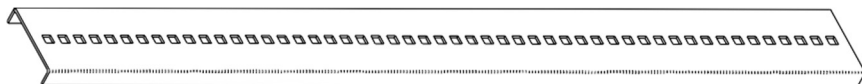
See the table on page 4 to determine the minimum opening required in the roof. The chimney must have 2" of clearance all around - regardless of roof pitch.

1. Assemble the roof support band following the instructions on page 25.
2. Bolt on the two 90° roof support brackets. These brackets require two elevator bolts per bracket - see the drawing above. Leave these bolts loose.
3. Slip the support down over the chimney - locate the support on the chimney so that the required amount of chimney projects below the finished ceiling - tighten the locking nut. Place the chimney in the opening in the roof. Rotate the 90° brackets to adjust for the roof pitch. Tighten the collar around the chimney, then secure it by screwing three metal screws through the holes in the collar and into the chimney. Tighten the four nuts which hold the brackets to the support band.
4. Centre the chimney in the hole in the roof and nail or screw the support to the roof using 6 - 2 1/2" nails or # 8 X 1 1/2" wood screws.

WALL CHANNEL (EWC)

The use of a wall channel will simplify the installation of a wall band or wall support. The wall channel is 26 inches long to allow for 24 inch on centre framing.

1. Locate the framing members you will screw the wall channel to.

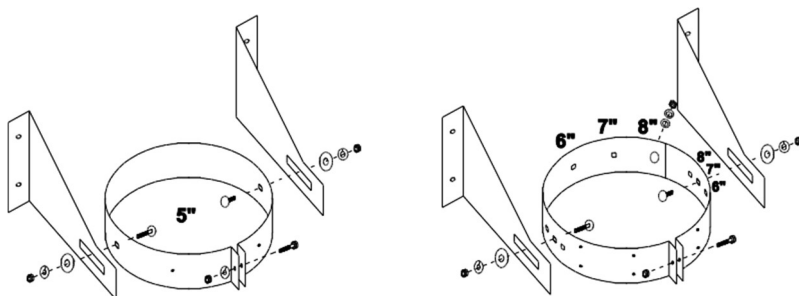


- do not screw the wall channel in place yet.

2. Determine the correct location on the wall channel for the wall band or wall support. The two short sides of the wall channel rest against the wall. Bolt the support brackets to the wall channel with elevator bolts.
3. Screw the wall channel in place using a minimum of four #10 X 3 inch screws.

WALL SUPPORT (EWS)

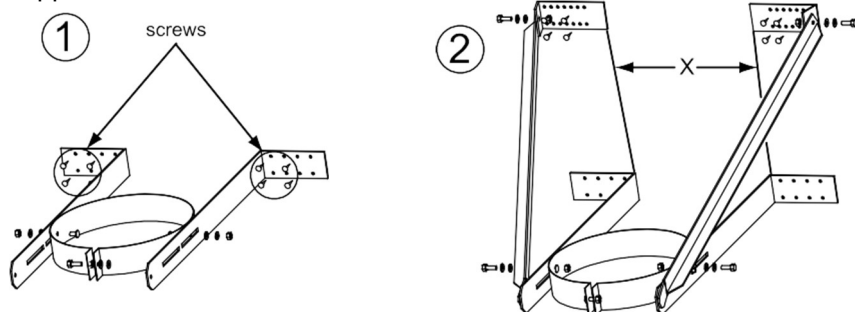
1. Assemble the band following the instructions on page 25.
2. Fasten the wall support components to the band - see diagram above. The components are attached to the two elevator bolts projecting from the sides of the band.



EXTENDED WALL SUPPORT (EWSE)

1. Assemble the universal support collar on the chimney section as shown on page 25.
2. Attach the horizontal braces to the universal support collar as shown in the diagram below. Place the support collar at the desired distance

from the wall using the slots on the horizontal braces. The braces are attached to the two elevator bolts that protrude from the sides of the support collar.



Continue the installation in accordance with through the wall installation instruction on page 16, and replace instructions 6 and 8 on page 17 with the following:

3. The horizontal braces and support flange should be installed on the first vertical chimney section above the Tee. Tighten the universal band locking bolt just enough to hold the wall support in place.
4. Install the support horizontal braces on the external wall by using four #10 X 3" or longer screws. Attach the diagonal braces and the wall brackets to the horizontal braces. Install the brackets on the external wall using #10 X 3" or longer screws. As mentioned previously, ensure that the screws are anchored in the structural member and not only to the wall sheeting. If the stud locations do not line up properly you may wish to use a wall channel (see instructions page 27). The wall support brackets are slotted to allow them to adjust in and out. Adjust the brackets so that the chimney is a minimum of 2" from combustible material and parallel with the wall. Tighten the Wall Support collar around the chimney and then secure it using 3 metal screws.

Chimney diameter	Maximum height that can be supported
5" Ø	25'
6" Ø	22'
7" Ø	19'
8" Ø	17'

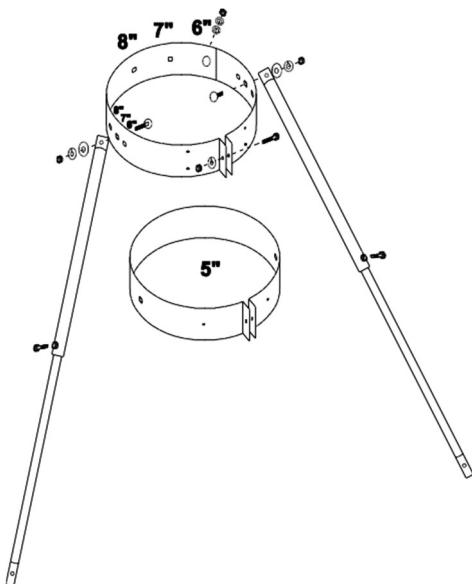
(continue the installation in accordance with the instruction manual at the page 17)

ROOF BRACE (ERB, ESRB)

The roof brace is required to provide extra stability for chimneys which extend more than 5 feet above a roof.

1. Assemble the band following the instructions on page 25.

2. Place the band at a point at least two thirds of the way up the chimney. Fasten the larger diameter section of the braces to the collar using the nuts provided. Adjust the length of the braces by telescoping one tube inside the other until the desired length is reached. The angle of the braces should not be more than 45 degrees from horizontal when fastened to the roof.



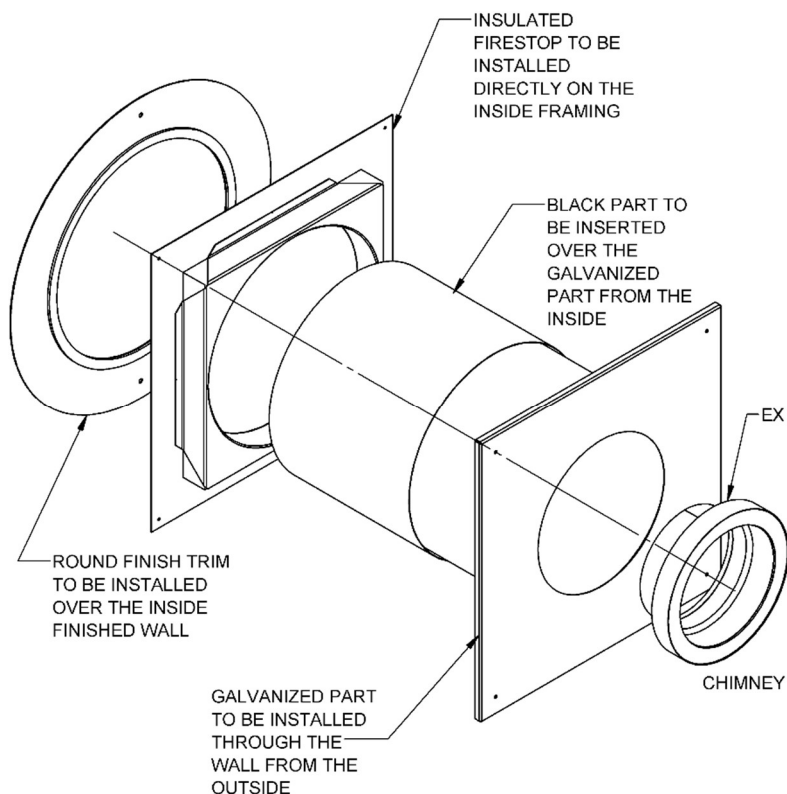
3. Fasten the other end of each brace to the roof using a # 10 X 4" or larger screw and a washer. Ensure that the screws are fastened into a structural member of the roof and not only into the roof sheeting. The two braces should be installed approximately 90° apart.
4. Tighten the bolt which locks the two tubes together very firmly. We recommend that you screw the inside and outside tubes together using # 8 X 1/2" screws to permanently lock them in place.
5. Tighten the locking bolt on the universal band then secure the collar by screwing the metal screws provided through the holes in the collar and into the chimney.

RADIATIONS SHIELDS

WALL RADIATION SHIELD (EWRSI-X)

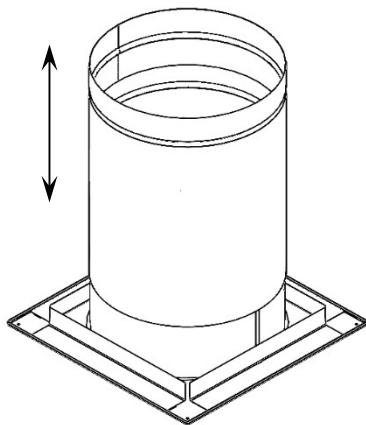
If possible, install an interior chimney as it will provide better performance than an exterior chimney. In areas with continuous temperatures below -18°C (0°F), the use of an exterior chimney may result in operating problems such as poor draft, excessive condensation of combustion products, and rapid 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. See the drawing for the installation sequence of each part. Make sure to install the insulated firestop on the interior wall. The gypsum board goes over the insulated firestop. Refer to page 16 for the overall installation.



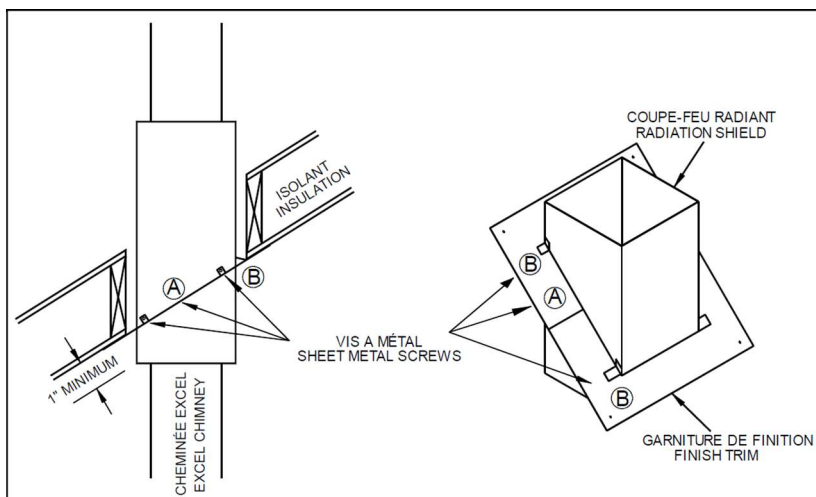
RADIATION SHIELD (ERSI-X)

The radiation shield must be used when the chimney passes through a floor, or when it is installed in an attic (see illustrations on page 10). The radiation shield is designed to adjust for a variety of attic heights. Always adjust the radiation shield to be as high as the attic will allow, even if the additional height is not required to provide shielding from insulation. This will reduce the chance that loose fill insulation will come in contact with the chimney if additional insulation is added in the future. To adjust the radiation shield, simply slide the top tube up as high as possible then screw the two sections together with the self-drilling screws provided. When the radiation shield is installed in the attic, a universal storm collar (ESC-X) must be used. Make sure the storm collar is in contact with the radiation shield. This will prevent the infiltration of insulation between chimney and the radiation shield. Gaps between the vapor barrier and the firestops can be sealed using high temperature silicone caulking or metallic tape such as aluminum tape. Gaps between outer casing of the chimney and firestops can also be sealed using high temperature silicone caulking rated for 260°C/500°F continuous operation (as ADSEAL 4706-3 High-temperature silicone adhesive sealant or similar).



RADIATION SHIELD FOR CATHEDRAL CEILINGS (ERSCI-X)

1. Cut and frame the opening as per the dimensions in the Table below.
2. Pre-assemble the Finish Trim to the same dimensions as the ceiling opening using two sheet metal screws (A) provided (see Figure below).
3. Attach the Finish Trim to the Radiation Shield Box using four sheet metal screws (B) provided (see Figure below).
4. From below, screw the Radiation Shield assembly to the ceiling framing using #8 x 1 ½" wood screws. If the Radiation Shield extends above a roof, cut it flush with the top of the roof.



Ouverture brute requise / Rough opening required

Pente de toit Roof slope	Ouverture brute requise Rough opening required		
	6" Ø	7" Ø	8" Ø
0 / 12	12" x 12"	13" x 13"	14" x 14"
3 / 12	12" x 12 3/8"	13" x 13 3/8"	14" x 14 3/8"
4 / 12	12" x 12 5/8"	13" x 13 3/4"	14" x 14 3/4"
5 / 12	12" x 13"	13" x 14 1/8"	14" x 15 1/8"
7 / 12	12" x 13 7/8"	13" x 15"	14" x 16 1/4"
8 / 12	12" x 14 3/8"	13" x 15 5/8"	14" x 16 7/8"
9 / 12	12" x 15"	13" x 16 1/4"	14" x 17 1/2"
12 / 12	12" x 17"	13" x 18 3/8"	14" x 19 3/4"

FLASHINGS

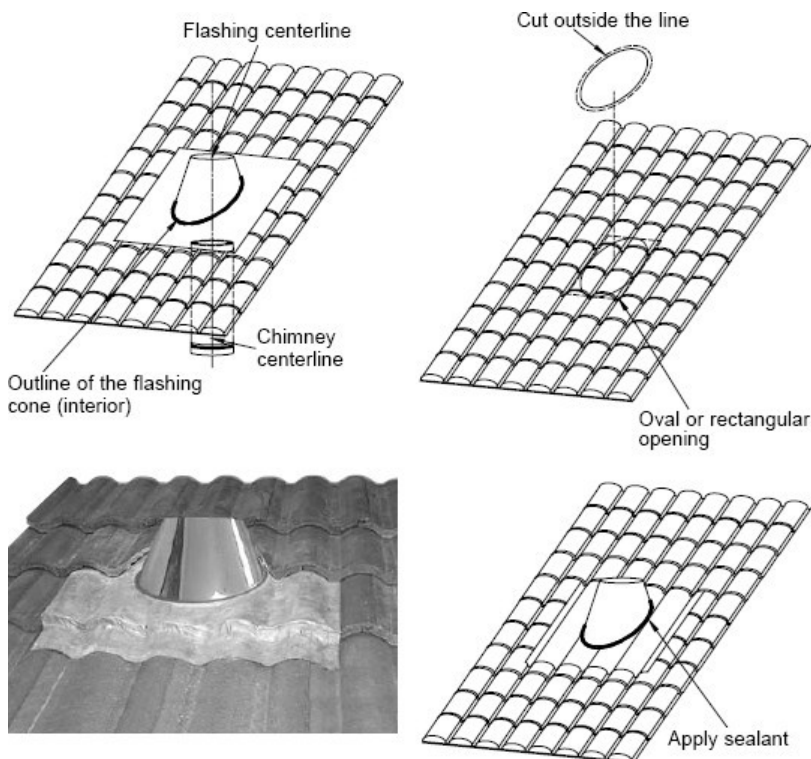
FLEXIBLE BASE FLASHING (ELFA-B-C)

WARNING: WEAR GLOVES TO MANIPULATE THE FLASHING.

1. Align the centerline of the flashing with the centerline of the chimney.
2. Trace a line on the roof corresponding to the interior of the flashing cone.
3. Remove the flashing and cut a hole in the roof tiles and roof sheeting following the line. Make sure to provide 2" clearance between the

chimney and combustible material. Note: a rectangular opening would also be adequate.

- Slide the top of the flashing under the upper tiles and let the bottom of the flashing rest on the roof. Firmly press the base of the flashing against the roof so that it matches the profile of the roof.
- Seal the bottom of the cone along the base of the flashing with a good quality exterior sealant.
- Install the storm collar, as described on page 12.

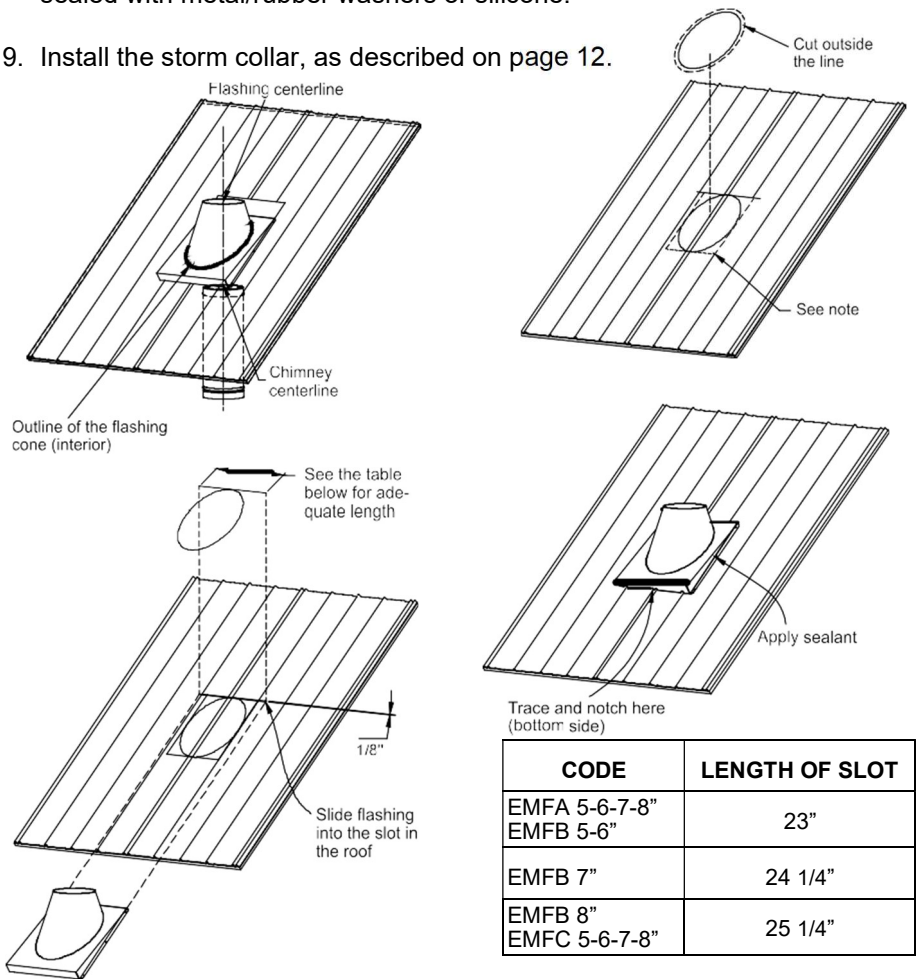


METAL ROOF FLASHING (EMFA-B-C)

- Align the centerline of the flashing with the centerline of the chimney.
- Trace a line on the metal roof corresponding to the interior of the flashing cone.
- Remove the flashing and cut a hole in the metal roof deck and roof sheeting following the line. Make sure to provide 2" clearance between the chimney and combustible material.

Note: a rectangular opening would also be adequate.

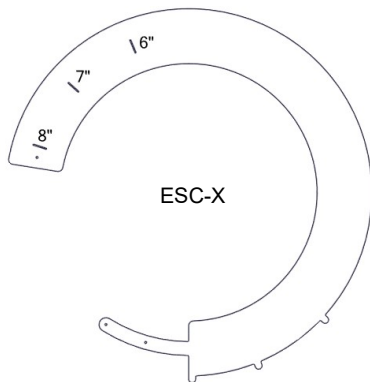
- 4. Cut a slot in the metal roofing at the top (peak) side of the hole and parallel with the peak. The slot should be approximately 1/8" wide (centered over the hole): See the table below for adequate length.
- 5. Slide the top of the flashing into the slot and let the bottom of the flashing rest on the roof.
- 6. Trace the profile of the roof ridges on to the vertical portion of the flashing base and then notch the flashing to correspond with the roof.
- 7. Seal the side flanges of the flashing with an external grade sealant.
- 8. Fasten the flashing to the roof with a minimum of 6 x # 8 wood screws, sealed with metal/rubber washers or silicone.
- 9. Install the storm collar, as described on page 12.



CODE	LENGTH OF SLOT
EMFA 5-6-7-8" EMFB 5-6"	23"
EMFB 7"	24 1/4"
EMFB 8" EMFC 5-6-7-8"	25 1/4"

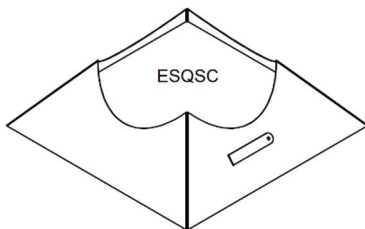
STORM COLLAR (ESC-X, ESQSC)

The storm collars have been designed as a compatible fit for EXCEL chimneys 6" to 8" in diameter. The ESC-X storm collar must be used on regular (non-vented) flashing, on the radiation shield or round supports when installed in an attic. The ESC-X storm collar is included with all standard flashings. The ESQSC storm collar must be used on square supports installed in an attic. It follows the box shape to completely cover the opening of the support.



To install a storm collar:

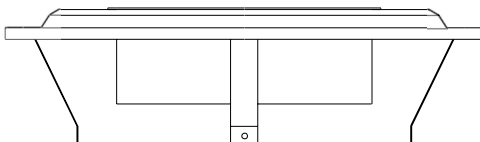
1. Place the storm collar around the chimney.
2. Slide the tongue into the appropriate slot for the required diameter.
3. Ensure the tongue is placed into the slot correctly.
4. Bend the tongue back over the slot.
5. Bend the two tabs to secure the inner portion of the collar (ESC-X).
6. Hold the tongue in place by inserting a screw into the hole at the tip.
7. When the collar is installed in an attic, ensure that it sits properly on the radiation shield or support box so that no insulation can fall into the radiation shield or support. No silicone is required in an attic.
8. When installed above a flashing, place a bead of silicone beneath the storm collar and then drag the storm collar downwards through the silicone until a trace of silicone is visible above the collar.
9. Seal the top of the joint where the storm collar meets the chimney with another bead of silicone.
10. Seal the unused slots of the universal storm collar with silicone.



CAPS

RAIN CAP BASE (ERCB)

The rain cap base is used to seal off the end of the chimney where it is installed without a rain cap. In some Northern areas the use of a rain cap is either not permitted or discouraged. Excel chimneys do not have end caps so the ends of the chimney are open to the weather unless they are protected by a rain cap or rain cap base. **Under no circumstances** can the end of an Excel chimney be left unprotected. If it is necessary for the rain cap to be removed, a rain cap base must be installed.

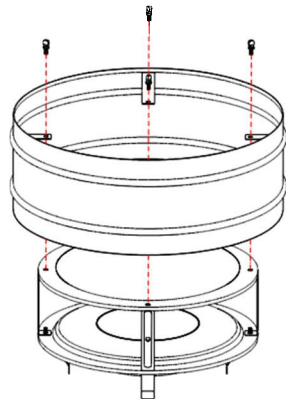


WIND SHIELD (ERCW)

Use the wind shield on a regular rain cap to improve draft and reduce the rain penetration in windy conditions.

Install at a minimum high of 15 1/2" above the chase.

1. Remove the four thumb screw.
2. Place the wind shield on the cap.
3. Put the thumb screw back in place.



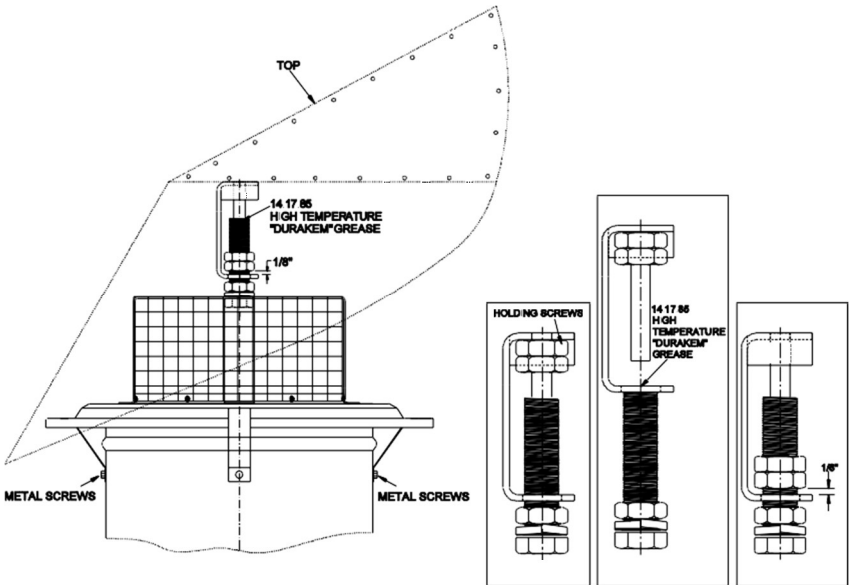
REVOLVING RAIN CAP (ERRC)

Use the revolving rain cap when you have drafting problems caused by wind.

1. Remove the old rain cap.
2. Place the revolving rain cap and screw it to the chimney with the screws supplied.
3. To clean the chimney, remove the revolving rain cap by unscrewing the four screws that hold it to the chimney. Also check if the revolving rain cap turns well and needs lubrication.
4. If lubrication is required, follow the procedure.
5. If your fireplace smokes, there may be two reasons: either your revolving rain cap does not turn well or your (optional) spark screen

(ERCS) is clogged and requires cleaning.

Note : Remove both holding screws, raise the top of the rain cap and then put the grease into the hole. Put the rain cap in place, then the screws. If you want your rain cap to revolve smoothly without jamming and avoid back draft problems in your home, use only the high temperature grease (14.17.85) supplied by ICC.

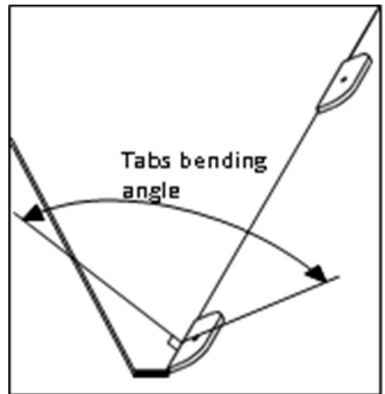


MISCELLANEOUS

ADJUSTABLE SNOW WEDGE (ESW)

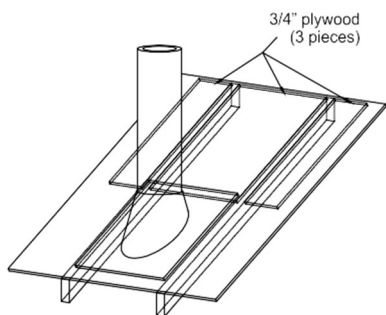
1. The snow wedge must be solidly fastened to the roof in order to resist the force of a heavy snow load. Simply screwing it to typical roof sheeting is not Tabs normally sufficient. We recommend that bending you install 3/4" plywood or 2 X 6 backing angle large enough to accept all eight screws.

2. The tabs on the snow wedge are factory adjusted for a 4/12 roof. These tabs must be bent in the field to adjust for the actual roof pitch - see attached table. The snow wedge is designed to be adjustable for all pitches up to a maximum of 12/12.

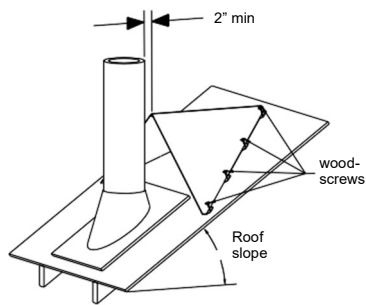


Roof slope	Locking tabs bend
4/12	136°
7/12	130°
9/12	125°
12/12	112°

3. Position the snow wedge on the roof with the hinge aligned with the center of the chimney. Adjust the wedge so that the top (hinge) is horizontal. Leave a minimum distance of 2" between the chimney and the top of the wedge.
4. Screw the wedge to the roof using #10 X 3" or heavier screws: be sure to install all eight screws. Before tightening the screws, apply some silicone under each tab to seal the screw hole in the roof. Make sure all screws penetrate the backing as well as the roof sheathing.



①

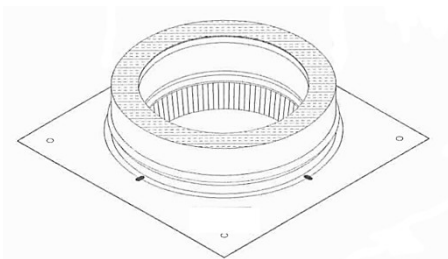


②

ANCHOR PLATE (EAP)

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

Once a fireplace is installed, bolt the anchor plate to the fireplace. Install the chimney according to the Installation Instructions for the round and square supports. Omit steps 2 and 3 since the anchor plate acts as the chimney's support.



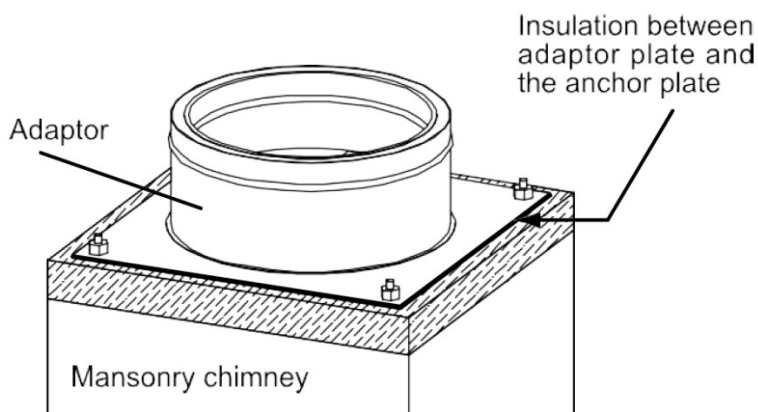
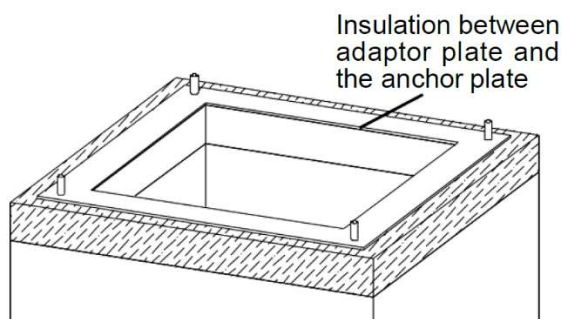
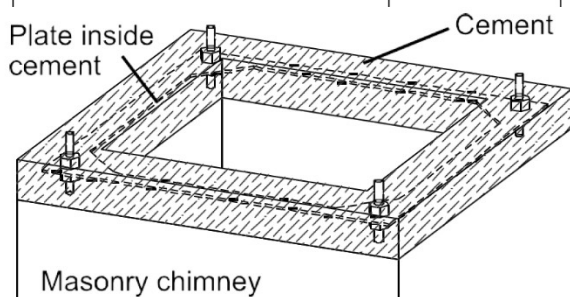
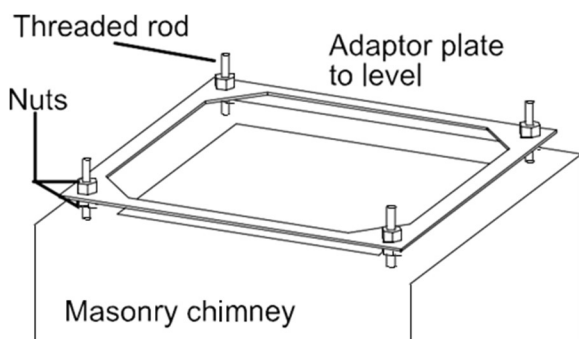
ANCHOR PLATE DAMPER (EAPD)

The anchor plate damper combines a heavy gauge stainless steel damper with the transition from a masonry fireplace to an RIS metal chimney. When you latch the damper closed (pull it down) it will virtually eliminate the flow of warm air up the chimney. The damper is counter- balanced and will open by itself when you un-latch the damper chain.

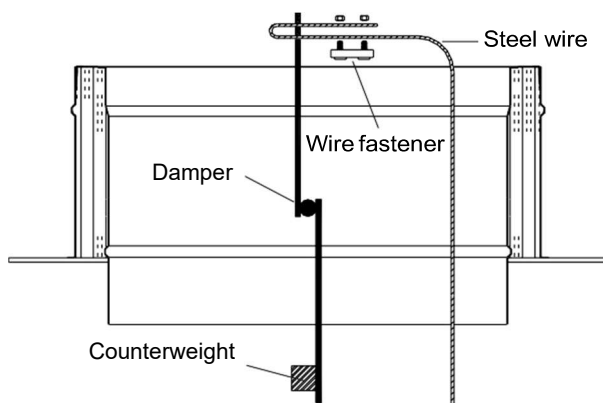
IMPORTANT : DO NOT CLOSE THE DAMPER WHILE THE FIREPLACE IS BURNING AS IT MAY CAUSE A SMOKE TO FLOW OUT OF THE FIREPLACE INTO THE HOME. THIS CAN CAUSE SERIOUS SMOKE DAMAGE TO THE HOME AND EXPOSE YOU TO DANGEROUS GASES

Installation steps

1. Install the four 5/16" threaded rods on the adapter plate (ADP-1) using eight of the nuts provided (one on top of the adapter plate, the other one beneath, for each rod). Ensure that the adapter plate will be level once the masonry has set and that the plate sits at least 3/4" above the existing masonry surface. This will help facilitate a strong bond to the existing fireplace or chimney. We recommend a minimum masonry thickness of 1" above the adapter plate, plus 3/4" below. Ensure that the threaded rods are long enough to fasten the anchor plate damper once the masonry has been poured.
2. Pour the masonry on the top of the adapter plate. Make sure the adapter plate it is kept level and well centered with the chimney until the masonry has set.
3. You can install the anchor plate damper once the masonry is dry. Place the insulation pad provided over the protruding bolts making sure the hole in the pad is centered. Place the anchor plate damper over the bolts and the insulation pad. Tighten the bolts to fasten the anchor plate damper in place. Make sure the bolts are tight enough to firmly compress the insulation pad.

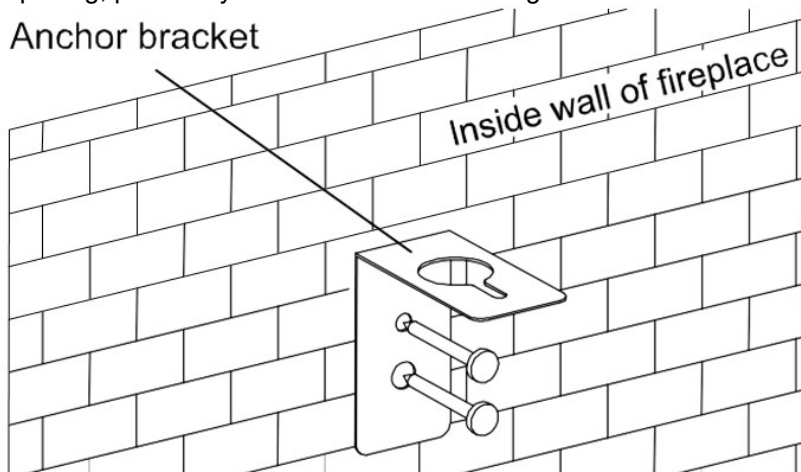


4. Fasten one end of the stainless steel wire as shown.

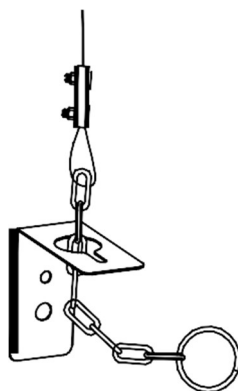


5. Install the anchor bracket in a convenient place close to the fireplace opening, preferably a location which will not get too hot.

Anchor bracket



6. Using the wire fastener provided fix the chain and ring to the stainless steel wire. Adjust the wire length to ensure that the chain locks firmly into the slot in the bracket when you close the damper.



NOTES:

LIMITED LIFETIME WARRANTY ICC EXCEL RESIDENTIAL CHIMNEY

ICC warrants its EXCEL stainless steel chimney lengths to be free from functional failure due to defects in material or workmanship for as long as the original consumer owns the chimney system. This warranty provides for replacement of any chimney lengths which fail as a result of normal use on a residential fireplace, wood burning stove, furnace or boiler and includes replacement of any lengths damaged as a result of a chimney fire. (Note: Chimney fires are dangerous and preventable, we strongly encourage you to have your chimney cleaned regularly). This warranty does not cover damage caused to the building by chimney fires or misuse of the product.

No claims under this warranty will be honored unless ICC is notified of the potential claim and is given the opportunity to have one of its agents examine the chimney prior to replacement.

ICC will only be responsible for repair or replacement of any chimney lengths found to be defective under this warranty. In no event shall ICC be responsible for any incidental or consequential damage caused by defects in the EXCEL chimney system.

During the first ten years of the warranty ICC will provide replacement chimney lengths at no charge. During the balance of the warranty ICC will provide replacement chimney lengths at 50% of the current retail price at the time of the warranty claim.

ICC will not be responsible for labor of any kind required in the removal or replacement of an EXCEL system replaced under this warranty.

This chimney is designed to vent residential heating oil, untreated wood, low sulphur coal, and natural or LP gas. It is designed to operate at a continuous temperature of 650°C or less. It is not designed to vent condensing oil or gas appliances. This warranty is void if the chimney is used in an application for which it is not designed.

The EXCEL system must be installed according to the Installation Instructions included with every system at the time of purchase. If you do not have a set of installation instructions they are available free upon request. This warranty is void if the chimney is not installed according to the installation instructions.

This warranty may not be extended or modified by our agents or representatives. This warranty is in lieu of all other express warranties or guarantees, of any kind.

CERTIFICATION LABELS

CANADA	 CERTIFIED TO / CERTIFIÉ À : CAN / ULC 629	650°C FACTORY-BUILT CHIMNEYS CHEMINÉES PRÉFABRIQUÉES 650°C MODEL / MODÈLE : EXCEL-X	 UP
	INSTALL IN ACCORDANCE WITH ICC INSTALLATION INSTRUCTIONS FOR CONNECTION TO GAS, OIL AND SOLID FUEL BURNING APPLIANCES NORMALLY PRODUCING FLUE GASES OF 650°C OR LESS. MINIMUM CLEARANCE 2 INCH AIR SPACE TO COMBUSTIBLE MATERIAL AND BUILDING INSULATION. SUITABLE FOR INTERIOR OR EXTERIOR INSTALLATION.	INSTALLER SELON LES INSTRUCTIONS D'INSTALLATION DE ICC. POUR RACCORDEMENT À DES APPAREILS AU GAZ, À L'HUILE ET AU BOIS PRODUISANT DES TEMPÉRATURES D'ÉVACUATION DE 650°C OU MOINS. DÉGAGEMENT MINIMAL 2 PO D'ESPACE D'AIR AUX MATIÈRES COMBUSTIBLES ET AUX ISOLANTS. UTILISABLE À L'INTÉRIEUR OU À L'EXTÉRIEUR.	
	FACTORY BUILT FIREPLACES MUST BE INSTALLED ACCORDING TO THE FIREPLACE MANUFACTURER'S INSTRUCTIONS.	POUR LES FOYERS PRÉFABRIQUÉS, SUIVRE LES INSTRUCTIONS D'INSTALLATION DU MANUFACTURIER DE FOYER.	
USA	CHIMNEYS, FACTORY-BUILT RESIDENTIAL TYPE AND BUILDING HEATING APPLIANCE, TYPE HT MODEL : EXCEL-X LISTED UL 103 HT INSTALL AND USE ONLY IN ACCORDANCE WITH ICC INSTALLATION AND MAINTENANCE INSTRUCTIONS. MINIMUM CLEARANCE : 2 INCH AIR SPACE TO COMBUSTIBLE MATERIALS AND BUILDING INSULATION.		
ICC INDUSTRIAL CHIMNEY COMPANY INC. ICC COMPAGNIE DE CHEMINÉES INDUSTRIELLES INC. ST-JÉRÔME, QUÉBEC, CANADA		MADE IN CANADA FABRIQUE AU CANADA 933056	

	RECOGNIZED COMPONENT FOR FACTORY-BUILT CHIMNEY COMPOSANT RECONNU POUR CHEMINÉE PRÉFABRIQUÉE	
	MODEL / MODÈLE : EXCEL-X	
CERTIFIED TO / CERTIFIÉ À CAN / ULC 629 UL 103 HT	FOR USE WITH ICC MODEL EXCEL-X FACTORY-BUILT CHIMNEY. INSTALL AND USE ONLY IN ACCORDANCE WITH ICC INSTALLATION INSTRUCTIONS	POUR UTILISATION AVEC LA CHEMINÉE DE MODÈLE EXCEL-X DE ICC INSTALLER SELON LES INSTRUCTIONS D'INSTALLATION D'ICC
ICC INDUSTRIAL CHIMNEY COMPANY INC. ICC COMPAGNIE DE CHEMINÉES INDUSTRIELLES INC. ST-JÉRÔME, QUÉBEC, CANADA	MADE IN CANADA FABRIQUE AU CANADA 933058	

PARTS LIST

Description	Part
Chimney Length	EL-X
Adjustable Length	ELA18-X
Elbow 15°	EE15-X
Elbow 30°	EE30-X
Elbow 45°	EE45-X
Insulated Tee	ETI-X
Insulated Tee Cap	ETC-X
Insulated Round Support	ERDSI-X
Round Support Extension	ERDSE
Square Support	ESSI-X
Square Support Extension	ESSE
Flue Extension	EX
Stom Collar	ESC-X
Wall Radiation Shield	EWRSI-X
Radiation Shield	ERSI-X
Insulated Radiation Shield for Cathedral Ceiling	ERSCI-X
Chimney Top Damper	ETD
Stainless Trim for EWRS	EST
Insulated 30° Angled Wall Radiation Shields	EWRSI30
Insulated 45°Angled Wall Radiation Shields	EWRSI45
Gable End Guide	EGEG
Roof Brace Stiffener	ERBS
Adjustable Stud Support	EAS
Universal Vinyl Siding Trim	EVT
Rain/Wind Shield	ERCW
Revolving Rain Cap	ERRC
Flat Flashing	EF
Roof Flashing 1/12 to 7/12	EFA
Roof Flashing 8/12 to 12/12	EFB
Roof Flashing 12/12 to 21/12	EFC
Vented Flat Roof Flashing	EVF
Vented Roof Flashing 1/12 to 7/12	EVFA
Vented Roof Flashing 8/12 to 12/12	EVFB
Vented Roof Flashing 12/12 to 21/12	EVFC
Metal Roof Flashings 1/12 to 7/12	EMFA
Metal Roof Flashings 8/12 to 12/12	EMFB
Metal Roof Flashings 12/12 to 21/12	EMFC
Vented Chase Cone	EVCC
Adjustable Peak Flashing	EFPP
Square Support Collar	ESQSC
Universal Roof Support	ESR
Wall support	EWS

Extended Wall Support	EWSE
Offset Support	EOS
Round Support Trim Ring Angled	ERTA-B-C
Trim Ring Flat	ECT
Trim Ring Angled	ECTA-B-C
Roof Brace	ERB
Adjustable Snow Wedge	ESW
Wall Channel	EWC
Anchor Plate Damper	EAPD
Roof Radiation Shield	ERRS
Regular Rain Cap	ERC
Deluxe Rain Cap	EDRC
Rain Cap Base	ERCB