

EXCELDirect

DIRECT VENT FOR GAS & PROPANE APPLIANCES



EXCELDirect® Technical Information

Certification

EXCELDirect® is certified by INTERTEK and UL.

Applications*

EXCELDirect® is a certified venting system designed to be used only with certified direct vent gas fired appliances.

Clearance to Combustible Materials

As determined by the gas appliance specifications in its instruction manual.

Construction

Flue: .016" Stainless Steel

Casing: .019" Galvalume Steel or .022" Satin Coated (painted black)

Paint: Forrester "Stove Bright" flat black.

Seam: Interior and exterior seams are laser welded.

Sizes

4" interior X 6 5/8" exterior

5" interior X 8" exterior

* charts refer to inner diameter.

EXCELDirect® Design Considerations

Prior to starting your installation, we suggest you take the following into consideration:

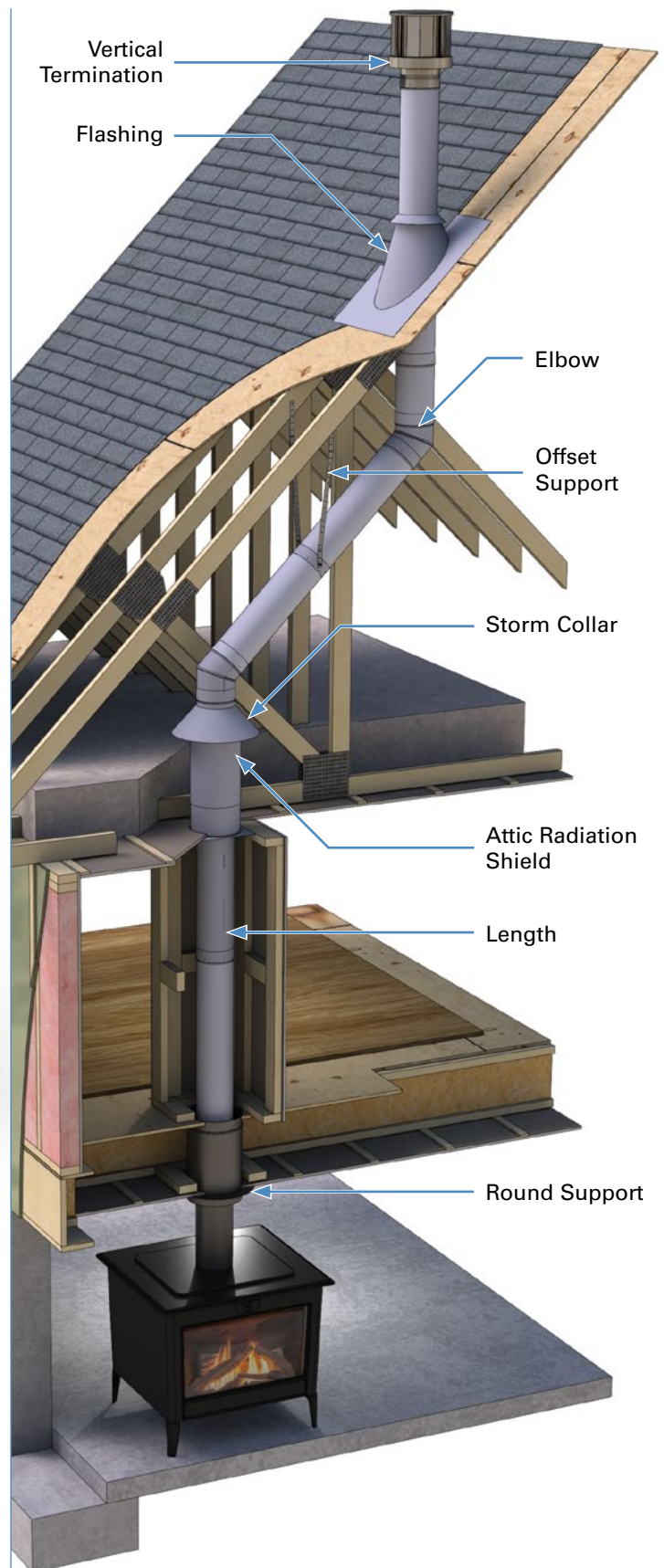
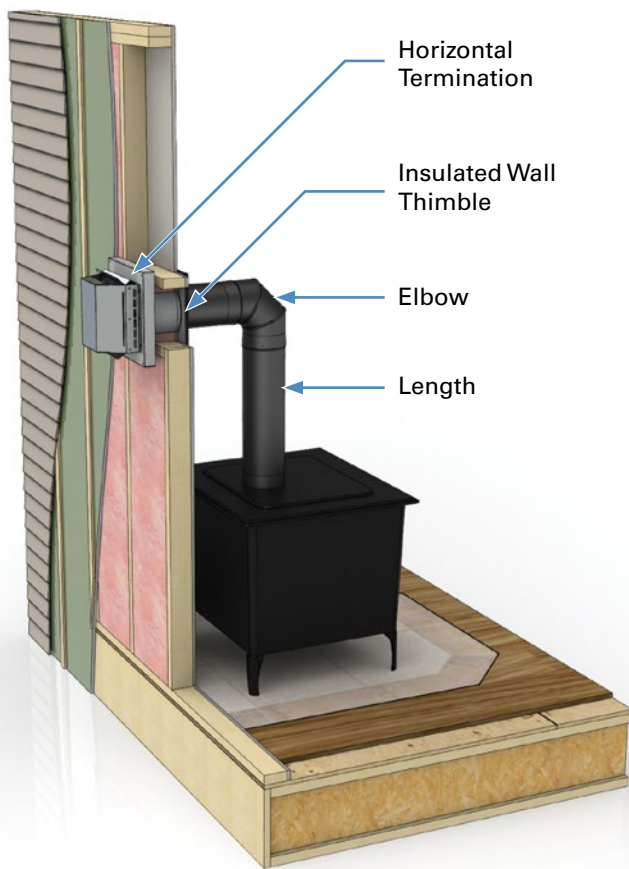
1. There are two possible ways to connect a direct vent venting system to a gas appliance:
 - The horizontal installation (through the wall);
 - The vertical installation (through the roof). Check the appliance manufacturer's installation instructions to see all possible vent configurations.
2. Review all your options for the appliance location and also venting configuration. Try to minimize the alteration and reframing of structural components of the building (wall studs, water pipes, electrical wiring, ceiling joists, roof rafters, etc.). It may be easier to change the location of your appliance than to modify the building structure.
3. Carefully read the appliance and the venting system instruction manuals. Good planning will save you time, work and money.
4. Use only authorized EXCELDirect® listed components unless compatibility with another brand is specified in the appliance manufacturer's instructions. Do not use damaged parts.
5. For a horizontal installation, you will have to take into consideration the distance between the gas appliance adapter to the wall, as well as the wall thickness and a vertical rise (if applicable). The horizontal vent termination on the exterior must be located in accordance with the Installation Codes and Regulations.
6. For a vertical installation, you must consider the distance between the gas appliance outlet and the ceiling, the ceiling thickness, the height of the attic or second floor and allow sufficient vent height above roof line.
7. For two-story applications, firestops are required at each floor. If an offset is needed in the attic, additional lengths and elbows will be required.
8. Contact your local building authority and/or fire officials for permits, restrictions and installation inspections. You may also wish to contact your house insurance representative.

* For a list of manufacturer-specific appliance adapters, reference page 80.



EXCELDirect® Typical Installations

NOTE: The following information is provided to assist you in selecting the chimney components required for your installation. It is intended to be a guideline only. These are not the installation instructions.

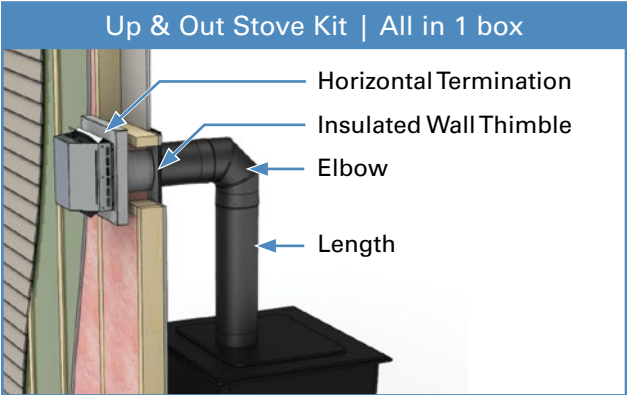


EXCELDirect® Product Descriptions

Horizontal Termination Kit (4HTK)



This classic up and out kit includes a Horizontal Termination (HT), Insulated Wall Thimble (WT), Trim Plate (TP), Black 90° Elbow (DE90B), Black 9" Length (DL9B) and Black 2' Length (DL2B).



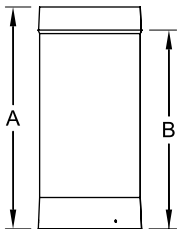
Lengths

(DL6, DL6B, DL9, DL9B, DL1, DL1B, DL2, DL2B, DL3, DL3B, DL4, DL4B)

EXCELDirect® lengths are available in 48", 36", 24", 12", 9" & 6". All lengths have a stainless steel interior and either a Galvalume or "Stove Bright" flat black exterior. **All EXCELDirect® lengths fit directly onto DuraVent® flue collars without the need for an adapter.**

Slip Lengths

(DLS1, DLS1B, DLS2, DLS2B)



Slip lengths enable an installer to adjust the system to the exact overall length required for any installation. Slip lengths must be installed above a straight length that is not adjustable and will not adjust into an elbow.

Dimensions			INCHES
Code	A	B	
DL6	5 5/8	4 1/4	
DL9	8 5/8	7 1/4	
DL1	11 5/8	10 1/4	
DL2	23 5/8	22 1/4	
DL3	35 5/8	34 1/4	
DL4	47 5/8	46 1/4	
Slip Lengths			
DLS1	Adds 1 7/8" - 9"		
DLS2	Adds 1 7/8" - 21"		

Telescopic Length

(DLA30, DLA30B)

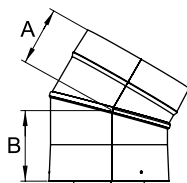
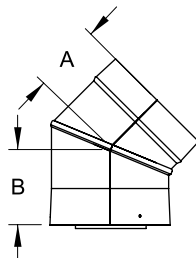
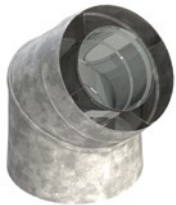
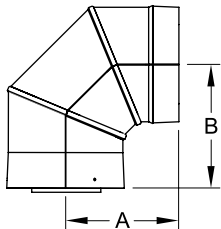


The Telescopic Length includes two pipe sections that must be used together. The joint between the pipe sections is cleaner looking than using a slip length. Telescoping from 16 1/2" to 29" in length makes it ideal for up and out installations.

Telescopic Length		INCHES
DLA30	Adjustable from 16 1/2" to 29"	

Elbows 30°, 45° & 90°

(DE30, DE30B, DE45, DE45B, DE90, DE90B)



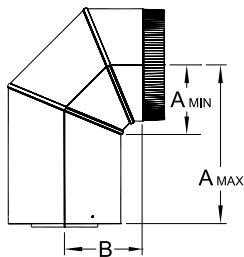
EXCELDirect® elbows are available in 45° and 90° and also in Black or Galvalume. The stainless steel inner casings are seam welded to ensure there is no leakage.

INCHES

Dimensions		
Code	A	B
4DE90	6 3/4	7
4DE45	3 5/8	4 3/8
4DE30	3 1/4	3 15/16
5DE90	7 5/8	7 7/8
5DE45	4	4 5/8
5DE30	3 1/4	3 15/16

Slip Elbow

(DE90S, DE90SB)



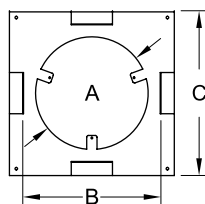
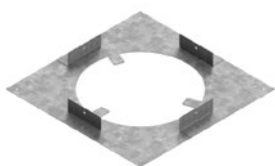
The vertical section of the slip elbow slides over a standard length just like a slip section of pipe. This eliminates the need for a separate slip piece. The installation can be completed faster and with fewer joints.

INCHES

Dimensions			
	A max.	A min.	B
4DE90S	11 1/2	4 3/4	6 7/8
5DE90S	11 1/2	5	7 3/4

Ceiling Support / Firestop

(CS)

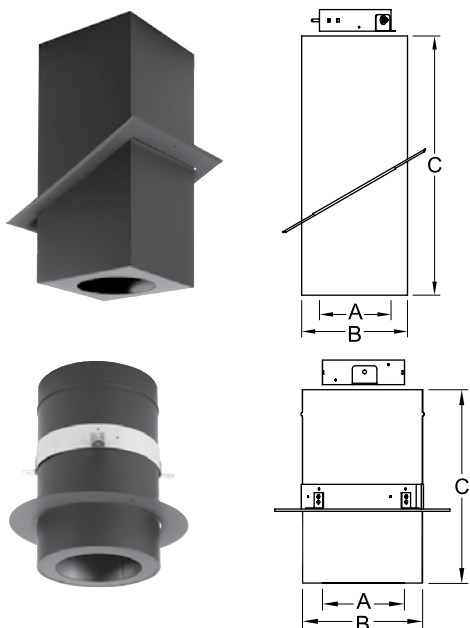


The Ceiling Support/Firestop is the most common support. It can be used on any floor level. It is the perfect choice when a structure hides the venting system. Simply screw the support to the framed joist with four #8 x 1 1/2" wood screws or use four spiral nails, 2" long. The Ceiling Support/Firestop acts as a firestop and a support when installed from below. It can also be installed above the joists; however an additional firestop is required from below in this case.

INCHES

Dimensions		
	4CS	5CS
A	6 3/4	8 1/8
B	8 3/4	10
C	10 3/4	12

Round and Square Support / Radiation Shield (RDS, SS)



EXCELDirect® supports are suitable for use on flat or sloping ceilings. The amount they project into the room is determined only by the desired visual effect, but must be more than 1/4 inch. These supports are designed to act as a combination of support and attic radiation shield. To use either support as an attic radiation shield, simply close the open area at the top of the support (in the attic) with a storm collar. The Round & Square Supports can hold up to 50' of 4"x 6 5/8" venting or 40' of 5"x 8".

INCHES

Square Support Dimensions

	4SS	5SS
A	6 3/4	8 1/8
B	9 3/4	10 3/4
C	24	24

Storm collar (ESQSC) ordered separately.

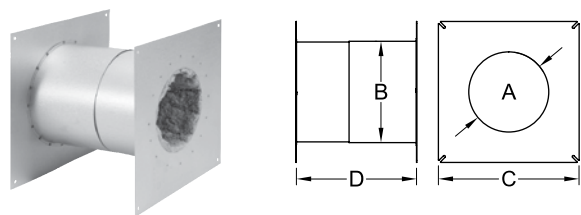
Round Support Dimensions

	4RDS	5RDS
A	6 3/4	8 1/8
B	9 3/4	10 3/4
C	15 3/4	15 3/4

Storm collar (ESC) ordered separately.

Insulated Wall Thimble

(WT)



Telescopes to accommodate wall thickness from 4" to 10 1/2". It is fully insulated and fits tightly to prevent heat loss. The 4" X 6 5/8" venting requires an 8 3/4" x 8 3/4" framed opening; the 5" X 8" venting requires a 10" x 10" framed opening.

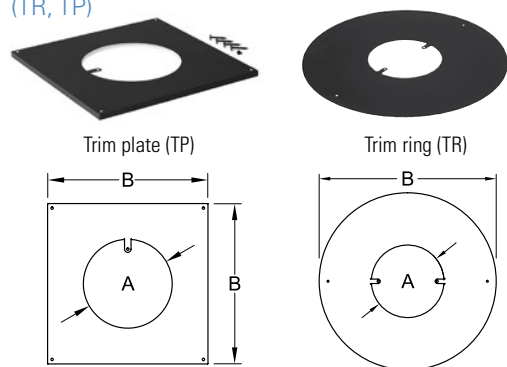
INCHES

Dimensions

	4WT	5WT
A	7	8 3/8
B	8 5/8	9 7/8
C	12	13
D	4 to 10 1/2	4 to 10 1/2

Trim Ring, Trim Plate

(TR, TP)



These are typically used as decorative covers when installing a wall thimble in a gas stove application. On vertical installations they can serve as firestops when installed from below. They can also serve as a firestop on horizontal installations that don't require a wall thimble (i.e. a fully non-combustible wall). The Trim Ring (TR) is larger and round and the Trim Plate (TP) is smaller and square. Available in black only.

All EXCELDirect trims include a rubberized O-ring to seal the gap between the trim and vent.

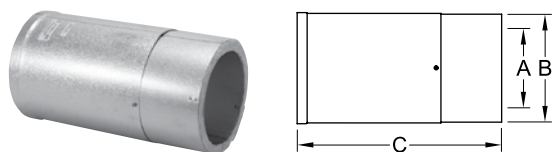
INCHES

Dimensions

	4TP	4TR	5TP	5TR
A	6 7/8	6 7/8	8 1/4	8 1/4
B	12 1/4	19	13	20

Wall Thimble Extension

(WTE)



UL listed Wall Thimble insulated extensions. They install easily and will allow our standard wall thimble (WT) to fit walls up to 20 3/4" thick.

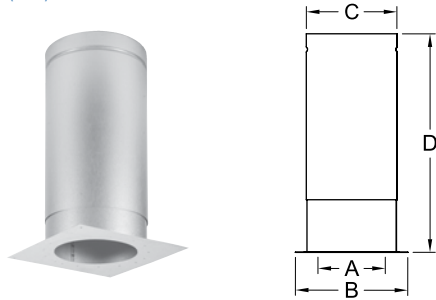
INCHES

Dimensions

	4WTE	5WTE
A	6 7/8	8 1/4
B	8 1/2	9 3/4
C	5 3/4 to 15	

Attic Radiation Shield / Firestop

(AS)



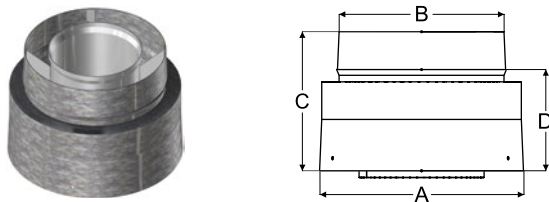
The Attic Radiation Shield / Firestop protects combustible framing in the floor or ceiling adjacent to the chimney, and also acts as a firestop spacer. When EXCELDirect® passes through the Attic Radiation Shield into an insulated space, a storm collar (SC) must also be installed to prevent the entry of insulation. This option CANNOT be used as a support and is typically used when the venting system will be enclosed.

INCHES

Dimensions		
	4AS	5AS
A	6 7/8	8 1/4
B	10 3/4	12
C	8 5/8	9 7/8
D	17 1/2 to 30	17 1/2 to 30

Reducer 5" – 4"

(R54)



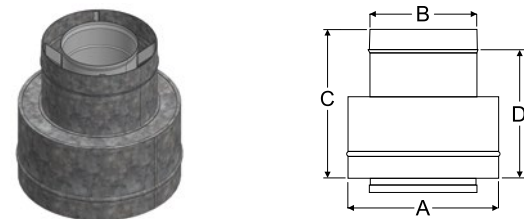
Only certain appliances are approved to use a reducer. Check the appliance manual. This component permits the transition from 5" x 8" to 4" x 6 5/8".

INCHES

Dimensions				
Code	A	B	C	D
R54	8"	6 5/8"	5 1/2"	4"

Reducer 8" – 5"

(R85)



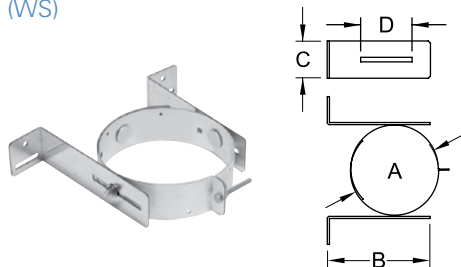
Only certain appliances are approved to use a reducer. Check the appliance manual. This component is for large direct vent gas fireplaces. It permits the transition from 8"x11" venting to 5"x 8" EXCELDirect.

INCHES

Dimensions				
Code	A	B	C	D
R54	11.162"	7.859"	10.973"	9.478"

Adjustable Wall Support

(WS)



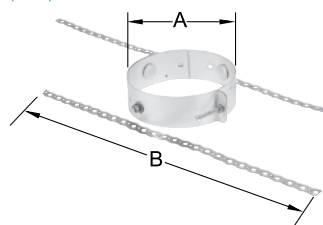
Rated to support up to 13' (4" x 6 5/8") or 10' (5" x 8") of venting. The universal support collar is adjustable for either the 6 5/8" or 8" outside vent casing. It adjusts easily to provide from 1" to 5" of clearance to the wall.

INCHES

Dimensions	
WS (universal)	
A	6 1/2 or 7 7/8
B	7 1/2
C	2
D	4 1/4

Offset Support

(OS)



The offset support is primarily used to re-support the chimney above an offset. However it can also be used to provide additional support when the chimney height exceeds the capacity of the primary support, or to support horizontal runs. The offset support straps are 24 inches long and the collar is adjustable to fit the 6 5/8" or 8" outside vent casing.

INCHES

Dimensions	
OS (universal)	
A	6 1/2 or 7 7/8
B	24

Horizontal Terminations

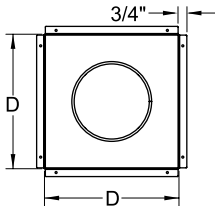
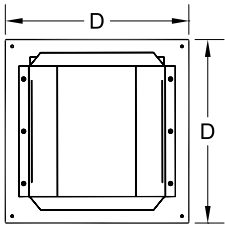
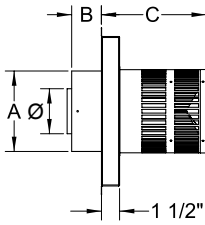
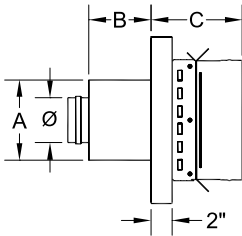
(HT, RHT)



Horizontal Termination (HT)



Round Horizontal Termination (RHT)



Our horizontal terminations are offered in two styles. Both are tested to high wind conditions and perform well even in winds equivalent to 40 mph. All Horizontal Terminations have built-in vinyl siding standoffs for siding up to 1 1/2" deep. For deeper siding, an additional Vinyl Siding Standoff (VSS) is required.

INCHES

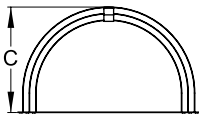
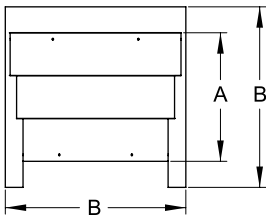
Horizontal Termination Dimensions (HT)		
Ø	4"	5"
A	6 3/4	8 1/8
B	5 1/4	5 1/4
C	7 5/8	7 5/8
D	14	14

INCHES

Round Horizontal Termination Dimensions (RHT)		
Ø	4"	5"
A	6 3/4	8 1/8
B	2 1/2	2 1/2
C	8 7/8	8 7/8
D	12 1/2	12 1/2

Wind / Heat Shield for Horizontal Termination

(HTS)



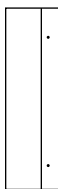
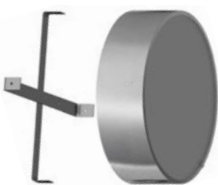
Provides additional wind and thermal protection. Required for specific appliance manufacturers; refer to your appliance manual for details about requirements. This shield also acts as a decorative shroud which can be painted.

INCHES

Dimensions (HTS)		
Ø	4"	5"
A	10	12
B	14	14
C	8 1/8	8 1/8

Wind / Heat Shield for Round Horizontal Termination

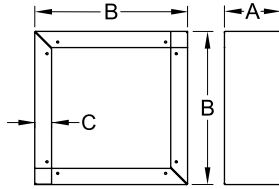
(RHTS)



Provides additional wind and thermal protection. Required for specific appliance manufacturers; refer to your appliance manual for details about requirements.

Vinyl Siding Standoff

(VSS)



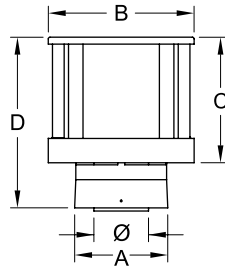
Required when siding is more than 1 1/2" deep. Prevents damage to temperature sensitive siding materials such as vinyl, shakes or shingles. For use with horizontal terminations only.

INCHES

Dimensions	
Ø	VSS (universal)
A	5
B	14
C	1 1/2

Vertical Termination

(SVT)



The SVT cap is made of stainless steel and is riveted during assembly to ensure lasting performance. It is certified to high wind applications where the vent terminates vertically. It cannot be installed horizontally.

INCHES

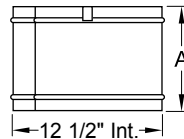
Dimensions		
Ø	4"	5"
A	6 5/8	8
B	10 1/2	10 1/2
C	9 1/2	9 1/2
D	12 1/4	12 1/4

Wind / Rain Shield

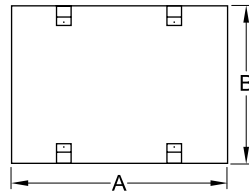
(4SVTS, CTS)



4SVTS



CTS



Optional Wind and Rain Shields prevent issues caused by strong wind or driving rain. The 4SVTS shield will fit the SVT or IVT cap, the CTS is for the Traditional Style caps.

Termination	Wind / Rain Shield
SVT, IVT	4SVTS
CT3, CT4, PCT	CTS

INCHES

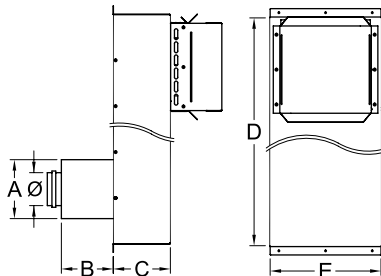
4SVTS Dimensions		
Code	A	B
4SVTS	9 1/8	12 1/2

INCHES

CTS Dimensions			
Code	A	B	Height
CTS	18 1/2	14	5

Snorkel Termination

(ST14, ST36)



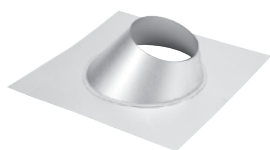
There are two Snorkel Terminations designed for use when a vertical rise is desired on the exterior of the home, or if the installation is below grade.

INCHES

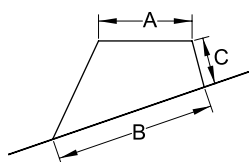
Dimensions				
Ø	ST14		ST36	
	4"	5"	4"	5"
A	6 5/8	8	6 5/8	8
B	7 to 10 3/4	7 to 10 3/4	7 to 10 3/4	7 to 10 3/4
C	6 1/2	6 1/2	6 1/2	6 1/2
D	26 3/8	26 3/8	48 3/8	48 3/8
E	12 3/4	12	12 3/4	12

Adjustable Flashing

(F, FA, FB)



Flashings include a storm collar



Our Flashings are made of galvalume steel and we have variations to fit any pitch.

For 5" x 8" EXCELDirect, a 6" EXCEL chimney flashing is used. Similarly, for installations through metal roofs, a 6" EXCEL Metal Roof Flashing should be used in combination with a Metal Roof Flashing Adapter (4MFA, 4MFB).

4F Flat roof

4FA 1/12 – 7/12 pitch roof

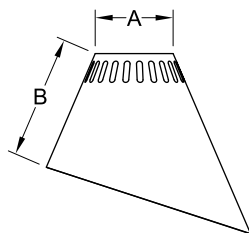
4FB 8/12 – 12/12 pitch roof

INCHES

Flashing Dimensions						
Pitch	DV Size	Code	Base W x L	A	B	C
Flat - 2/12	4 x 6 5/8	4F	20 x 20	7	12	8
1/12 - 7/12	4 x 6 5/8	4FA	20 x 20	7	12 5/8	3 3/4
8/12 - 12/12	4 x 6 5/8	4FB	22 x 26	7	17	3 3/4
Flat - 2/12	5 x 8	6EF	See EXCEL Chimney Section			
1/12 - 7/12	5 x 8	6EFA				
8/12 - 12/12	5 x 8	6EFB				

Metal Roof Flashing Adapter

(MFA, MFB)



This flashing cone fits onto a 6" EXCEL Metal Roof Flashing (6EMFA or 6EMFB, page 16) to convert it for use with EXCELPellet vent or EXCELDirect. **Metal Roof Flashing and storm collar ordered separately.**

INCHES

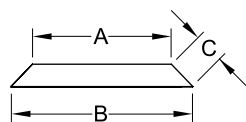
Dimensions		
Code	4MFA	4MFB
A	5	5
B	8	9 1/2

Storm Collars

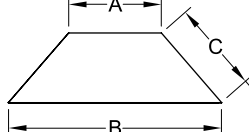
(SC, SQSC)



(SC)



(SQSC)



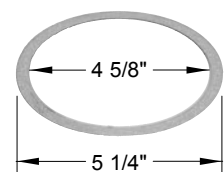
The storm collars fit both 4" x 6 5/8" and 5" x 8" EXCELDirect®. The regular Storm Collar (SC) is required to be used in combination with the Round Support or Attic Radiation Shield to form an attic insulation shield assembly when these components are installed into an insulated space. For square support installations, use the Square Support Attic Collar (SQSC) in an attic instead.

INCHES

Dimensions		
	SC	SQSC
A	6 1/2 or 7 7/8	6 1/2 or 7 7/8
B	9 1/4 or 10 5/8	14 1/4 or 17
C	2	6 7/16

Restrictor Disk

(4RD)



Used only in accordance with specific manufacturer's installation instructions to reduce the flow of combustion air.

Aluminum Flex Roll

(AL)

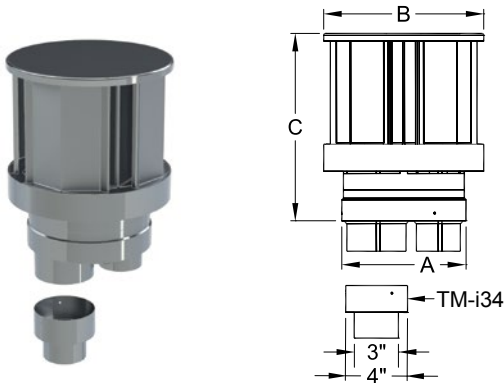


Our UL/ULC certified flex has gone through rigorous puncture and torsion testing to ensure continuous quality of every length. Rolls are available in 3" or 4" diameters.

- ØAL35: 35' roll
- ØAL50: 50' roll

Insert Vertical Termination

(IVT)



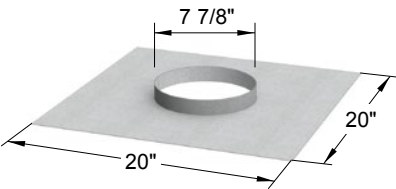
Used when installing a direct vent system in a masonry chimney using two aluminum flex liners. The IVT has a 3" air inlet and a 4" exhaust. An adapter for 3" exhaust is included. Requires a flashing (MF, MFR, MFC or IVTP). Certified for high wind. The optional Wind / Rain Shield (SVTS) can improve performance in extreme wind conditions. Stainless steel construction.

Dimensions		INCHES
A	8 1/8	
B	10 1/2	
C	12 1/4	

Universal Flashing for IVT

(MFR)

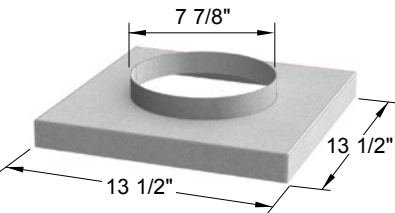
Made of galvalume, this flashing can be cut, bent, or secured with silicone to the top of a masonry chimney.



Clay Tile Flashing for IVT

(MFC)

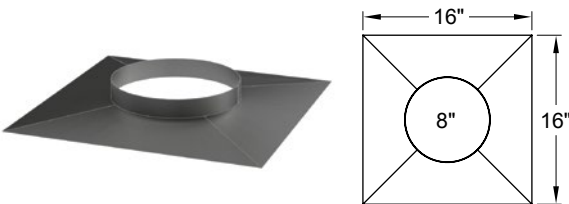
Made of galvalume and designed to fit onto a clay tile flue. Optional Hose Clamp Bracket (HC) can be used or it can be secured in the method of your choice.



Masonry Flashing for IVT

(MF)

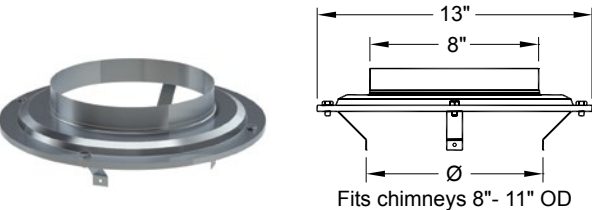
Made of stainless steel for added rigidity and corrosion resistance.



Prefab Chimney Top Adapter

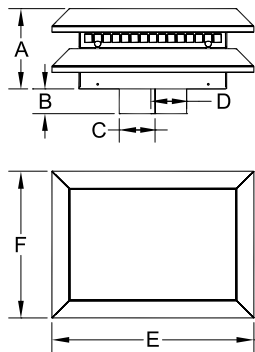
(IVTP)

For co-linear direct vent installations in a prefab chimney. Will fit any round prefab chimney up to 11 1/2" OD. Use with the IVT termination only.



Traditional Co-Linear Chimney Cap

(CT3, CT4)

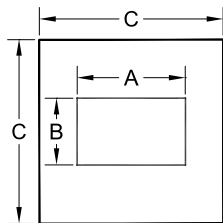
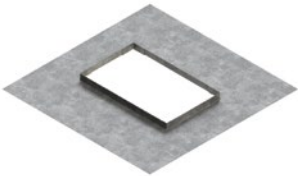


This stainless steel cap is designed for a direct vent insert installation in a masonry chimney that uses two flex liners. Requires a flashing (CTF, or CTFC). Certified for high wind. The optional Wind / Rain Shield (CTS) can improve performance in extreme wind conditions.

Dimensions			INCHES
	CT3	CT4	
A	6 1/2	6 1/2	
B	2	2	
C	2 7/8	2 7/8	
D	2 7/8	3 3/4	
E	16 1/2	16 1/2	
F	12	12	

Universal Flashing for Traditional Cap

(CTF)

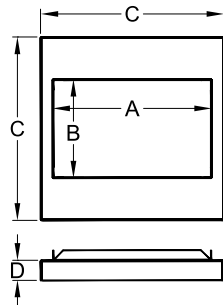


Made of galvalume, this flat flashing base is easy to cut, bend, or simply silicone to the top of a masonry chimney.

Dimensions			INCHES
A	11 3/4		
B	7 1/4		
C	20		

Clay Tile Flashing for Traditional Cap

(CTFC)

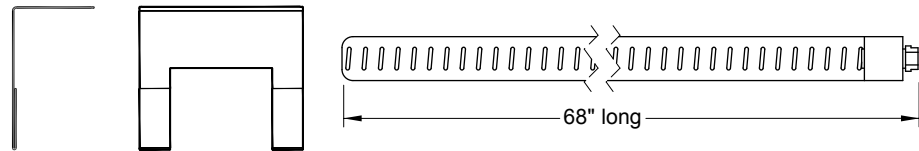
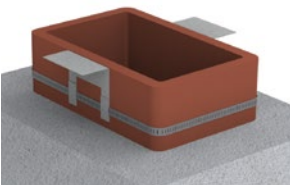


Made of galvalume and designed to fit onto a clay tile flue. Optional Hose Clamp Bracket (HC) can be used or it can be secured in the method of your choice.

Dimensions			INCHES
A	11 3/4		
B	7 1/4		
C	13 3/4		
D	1 1/2		

Hose Clamp Bracket

(HC)



Heavy duty hose clamp and two mounting brackets for Clay Tile Flashings (MFC and CTFC).

Flex Liner Connector

(CFAA3, CFAA4)



Used to connect two pieces of flex together securely and without tearing. Available for 3" or 4" flex.

NEW

Coaxial Flex Adapter

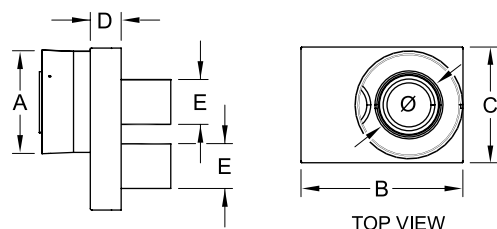
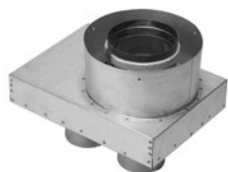
(4CFA, 5CFA)



Permits approved appliances to use coaxial aluminum flex rather than rigid EXCELDirect. The ØCFA includes an appliance adapter, a termination adapter, and clamps. Coaxial flex is not included.

Co-Axial to Co-Linear Appliance Adapter

(CAA)



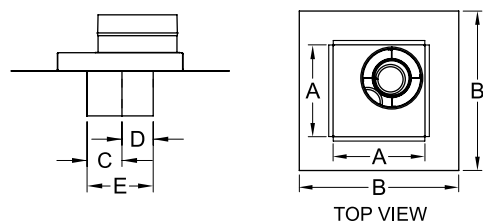
Use with direct vent gas appliances that require 4" x 6 5/8" venting. This part adapts a co-axial flue outlet to a flexible co-linear system to be used in an existing masonry chimney. **Flexible liners are ordered separately.**

INCHES

Dimensions	
Ø	4"
A	6 5/8
B	10 1/2
C	7 1/2
D	2
E	2 7/8

Co-Linear Termination Adapter

(CTA and CTA4)



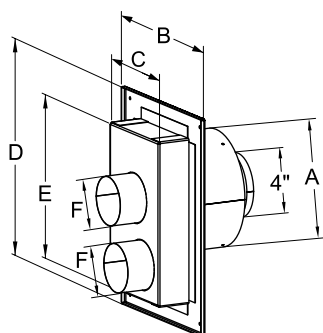
The Co-Linear Termination Adapter is for direct vent systems that are installed in existing masonry chimneys and use two co-linear liners. It is made out of stainless steel and is available with either 3" or 4" exhaust.

INCHES

Dimensions		
	CTA	CTA4
A	10 3/8	10 3/8
B	18	18
C	2 7/8	2 7/8
D	2 7/8	3 3/4
E	6 1/2	7 1/2

Co-Linear Masonry Adapter

(TM-4MAC33)



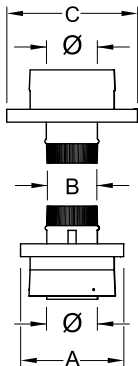
The Co-linear Masonry Adapter is designed for freestanding gas stove installations that will use a masonry chimney. Designed to fit 4x7 EXCELDirect, the built-in trim of the MAC is painted with Stove Bright Flat Black paint. Depending on the size of the existing thimble, some small masonry removal may be required, but the MAC has been built to the absolute minimum dimensions possible.

INCHES

Dimensions	
A	6 5/8
B	9 5/8
C	5 7/8
D	12 7/8
E	9 3/4
F	3

Type A Chimney Adapter

(CA6, CA7, CA8)



Provides a positive sealed connection between EXCELDirect® and class A chimneys. The Chimney Adapter includes a universal connector to tie into the existing chimney and an adapter to connect to an EXCELDirect® Vertical Cap (SVT). **4" flex and SVT termination sold separately.**

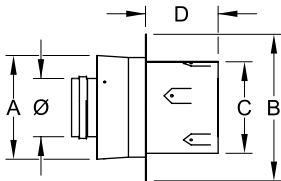
INCHES

Dimensions			
	4CA6	4CA7	4CA8
Ø	4"	4"	4"
A	6	7	8
B	4	4	4
C	8 1/8	9 1/8	10 1/8

USA only, not available in Canada

Masonry Adapter

(MA)



Easily connect a masonry chimney of any size to a freestanding gas stove with the Masonry Adapter. It is to be installed in combination with the MTA (Masonry Termination Adapter). **4" flex and SVT termination are sold separately.**

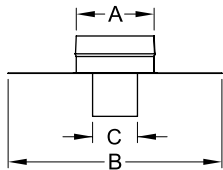
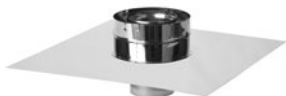
INCHES

Dimensions	
Ø	4"
A	6 5/8
B	9 1/2
C	5 7/8
D	3 3/4

USA only, not available in Canada

Masonry Termination Adapter

(MTA)



Adapts a 4" flexible liner to a direct vent system, typically used with the MA (Masonry Adapter). **4" flex and SVT termination sold separately.**

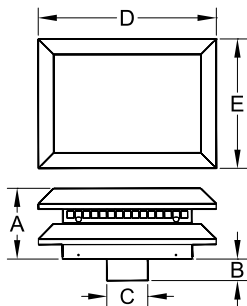
INCHES

Dimensions	
	MTA
A	6 5/8
B	18
C	4

USA only, not available in Canada

Traditional Masonry Adapter Cap

(PCT)



This stainless steel cap is designed for direct vent installations in a masonry chimney that uses a single 4" aluminum flex liner for exhaust and the masonry chimney for fresh air. Requires a flashing (CTF, or CTFC). Certified for high wind. The optional Wind / Rain Shield (CTS) can improve performance in extreme wind conditions.

INCHES

Dimensions	
A	6 1/2
B	2 3/4
C	3 3/4
D	16 1/2
E	12

EXCELDirect® Appliance Adapters

Manufacturer specific appliance adapters		
Adapter Code	Ø	Manufacturer
TM-4AA1	4" x 7"	VERMONT CASTINGS
TM-4AA2	4" x 7"	VALOR
TM-4AA3	4" x 7"	NAPOLEON
TM-4AA4	4" x 7"	KINGSMAN
TM-4AA6	4" x 7"	ARCHGARD
TM-4AA7	4" x 7"	REGENCY
TM-5AA1	5" x 8"	KINGSMAN
TM-5AA3	5" x 8"	REGENCY
TM-5AA4	5" x 8"	KOZY HEAT
TM-5AA6	5" x 8"	MONTIGO
TM-5AA7	5" x 8"	ARCHGARD
TM-5AA8	5" x 8"	FABER

EXCELDirect fits directly onto DuraVent® flue collars without the need for an adapter.

EXCELDirect® Offset Tables

Vent Offset Specifications						
LENGTH BETWEEN OFFSETS	30° Elbows		45° Elbows		90° Elbows	
	RISE	OFFSET	RISE	OFFSET	RISE	OFFSET
4 INCH Ø						
NO LENGTH	10 3/4	2 7/8	10 1/2	4 3/8	10 3/4	10 3/4
6" Length	14 7/16	5	13 5/8	7 1/2	10 3/4	15 1/4
12" Length	19 5/8	8	17 7/8	11 3/4	10 3/4	21 1/4
24" Length	30	14	26 3/8	20 1/4	10 3/4	33 1/4
48" Length	50 13/16	26	43 3/8	37 1/4	10 3/4	57 1/4
5 INCH Ø						
NO LENGTH	10 3/4	2 7/8	11 3/4	4 7/8	12"	12"
6" Length	14 7/16	5	14 7/8	8	12"	16 1/2
12" Length	19 5/8	8	19 1/8	12 1/4	12"	22 1/2
24" Length	30	14	27 5/8	20 3/4	12"	34 1/2
48" Length	50 13/16	26	44 5/8	37 3/4	12"	58 1/2

