polyflue™

Polypropylene

Venting System

For condensing gas fired appliances up to 230°F / 110°C flue temperature with 0" clearance to combustibles

c UL LISTED

Table of Contents

About 4
Typical Installations 5
Straight Pipe 6
Elbows 6
Tees & Tee Caps 7
Condensate Drain Sections 8
Test Port 9
Increaser / Reducer 9
Concentric Terminations 9
Flexible Pipe 10
Flex Kit 11
Firestop / Wall Plate 11
Bird Screen 12
B-vent Re-line Storm / Support Collar 12
Appliance Adapters 12
Gaskets 14
Supports 14
Locking Band 15
Roof Flashings 16

About Polyflue

Polyflue is a simple and complete venting system providing the ultimate installation flexibility. Polyflue is made of flame retardant polypropylene (PPs), a credible and superior material for condensing gas fired heating appliances when compared to PVC/CPVC. It is a safe and economical approach to high efficiency heating appliance venting.

Benefits of Polyflue include:

1. Tested & listed by UL to the ***complete*** ULC S636 test standard as a Type BH Class IIC Gas Vent with 15" w.c. positive pressure rating, for Category II & IV appliances.
2. Maximum flue gas temperatures are 230°F / 110°C (53% higher than PVC), giving extra insurance on an over-firing boiler.

   PVC is only safe to 150°F / 65°C, CPVC to 194°F / 90°C, regardless if they have a UL listing or not.
3. 0" clearance to combustibles.
4. 10 year limited warranty as opposed to little or nothing from PVC/CPVC manufacturers.
5. Environmentally-friendly production process unlike that of PVC/CPVC and is fully recyclable.
6. Wind tunnel testing on concentric terminations.
7. No toxic primer or cement, just soapy water & a locking band.
8. The UL required locking bands can be installed during or *after* the installation of the vent system, providing ultimate installation flexibility and negating the need to disassemble the pipe if accidentally overlooked by the installer. Other polypropylene manufacturers' locking mechanisms must be installed during the installation and cannot be installed afterwards without dismantling the vent system.
9. As with any condensing system, proper condensate management is required. Polyflue requires a 3/8" per foot upward slope (2°) for horizontal systems draining back to the appliance or condensate drain section.
10. Flexible pipe can be installed into (3) different vertical construction scenarios:
    a) combustible enclosure/chase
    b) existing unused metal vent system
    c) existing unused masonry chimney
11. White UV rated parts for attractive exterior applications.

Polyflue is your answer for an easy, economical, yet safe approach to high efficiency appliance venting.

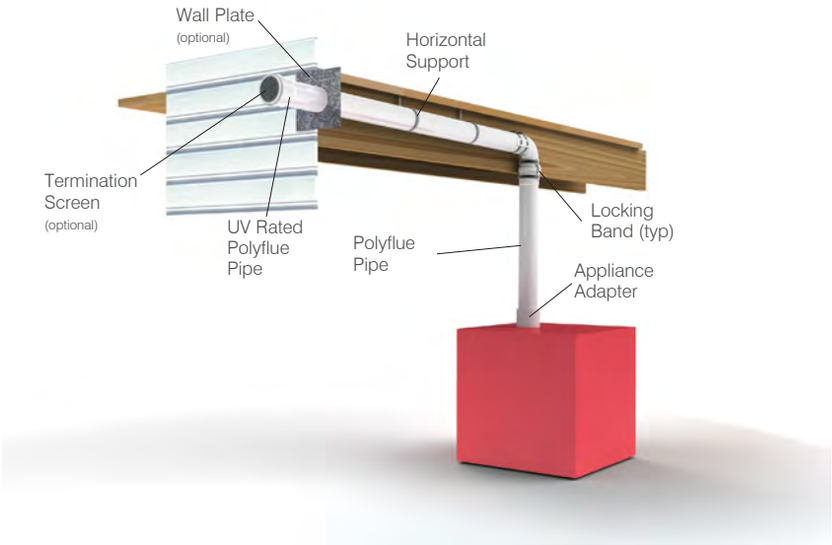
5030 Corporate Exchange Blvd.
Grand Rapids, MI 49512

US (800) 992-8368
CA (888) 735-5475

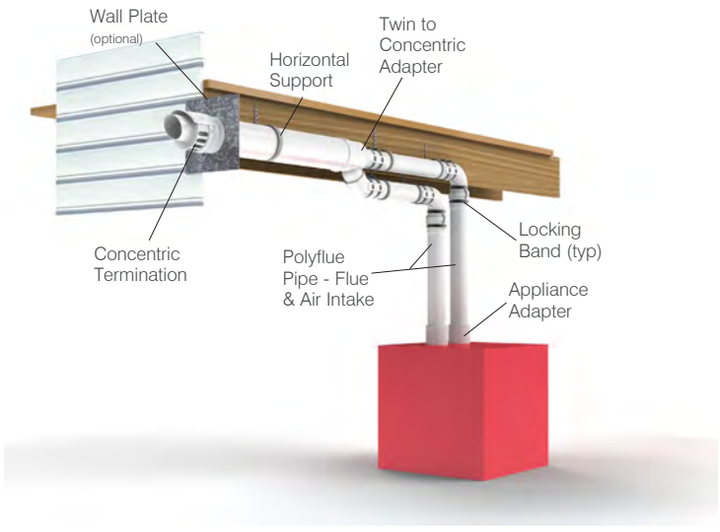
polyflue.com

Typical Installations & Surroundings

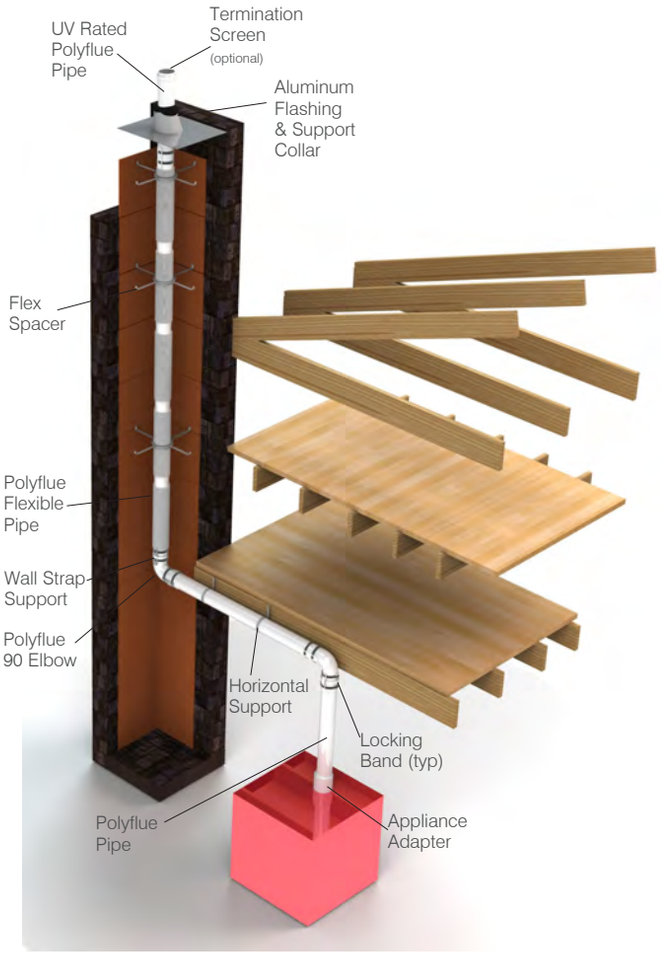
This system may be installed in any combination of vertical or horizontal, enclosed or unenclosed configurations. The total length and number of fittings should not exceed the appliance manufacturer's recommendations. This system (with flexible pipe) may also be installed within an existing, unused masonry chimney, unused B-vent or chimney system. The flexible pipe system may only be used vertically and can be used in all installations (combustible enclosure, masonry chimney, or B-Vent / chimney system) & is limited to 66 feet in height.



Horizontal Installation of Single Wall Pipe

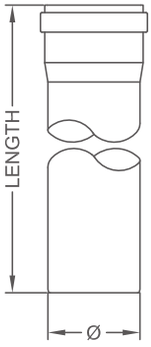


Horizontal Installation of Concentric Pipe



Installation into a Masonry Chimney

Single Wall, Rigid Pipe / PF



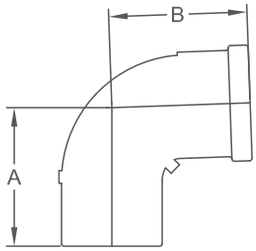
Order UL required locking bands (PF-LB), separately

	Diameter (Ø)	Length	Model #	Part #
2"	2" (60mm)	9.84" (250mm)	2PF-10	832001
	2" (60mm)	19.68" (500mm)	2PF-20	832012
	2" (60mm)	39.37" (1000mm)	2PF-39	832002
	2" (60mm)	78.74" (2000mm)	2PF-79	832004
	2" (60mm)	9.84" (250mm)	2PF-10UV	832010
	2" (60mm)	39.37" (1000mm)	2PF-39UV	832003
3"	3" (80mm)	9.84" (250mm)	3PF-10	833001
	3" (80mm)	19.68" (500mm)	3PF-20	833022
	3" (80mm)	39.37" (1000mm)	3PF-39	833002
	3" (80mm)	78.74" (2000mm)	3PF-79	833004
	3" (80mm)	9.84" (250mm)	3PF-10UV	833012
	3" (80mm)	39.37" (1000mm)	3PF-39UV	833003
4"	4" (100mm)	9.84" (250mm)	4PF-10	834001
	4" (100mm)	19.68" (500mm)	4PF-20	834026
	4" (100mm)	39.37" (1000mm)	4PF-39	834002
	4" (100mm)	78.74" (2000mm)	4PF-79	834004
	4" (100mm)	9.84" (250mm)	4PF-10UV	834012
	4" (100mm)	39.37" (1000mm)	4PF-39UV	834003

Note: "UV" at the end of the model number indicates White UV rated.

- Field cut, if necessary, to desired length from male end
- Optional White UV resistant for exterior applications
- Optional HVST screen (sold separately) for straight pipe terminations or air intakes
- Pipe/fitting joint overlap = approx 2" (51mm)

90° Elbow / PF-90



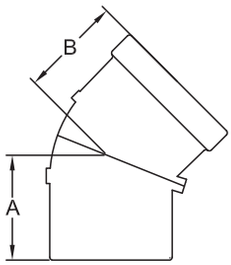
Order UL required locking bands (PF-LB), separately

Diameter	"A"	"B"	Model #	Part #
2" (60mm)	4.50" (115mm)	4.68" (119mm)	2PF-90	832008
3" (80mm)	4.33" (110mm)	4.50" (114mm)	3PF-90	833008
4" (100mm)	4.50" (115mm)	4.50" (115mm)	4PF-90	834008
2" (60mm)	4.50" (115mm)	4.68" (119mm)	2PF-90UV	832009
3" (80mm)	4.33" (110mm)	4.50" (114mm)	3PF-90UV	833009
4" (100mm)	4.50" (115mm)	4.50" (115mm)	4PF-90UV	834009

Note: "UV" at the end of the model number indicates White UV rated.

- Used for changing directions horizontally or vertically
- Upward pitch built-in
- Optional White UV resistant for exterior applications
- Optional HVST screen (sold separately) for elbow terminations or air intakes
- Reference instructions for friction loss (equiv length)

45° Elbow / PF-45



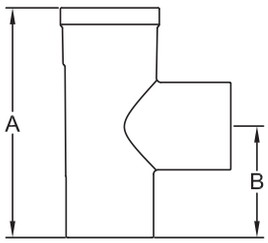
Order UL required locking bands (PF-LB), separately

Diameter	"A"	"B"	Model #	Part #
2" (60mm)	2.60" (66mm)	2.87" (73mm)	2PF-45	832006
3" (80mm)	2.72" (69mm)	2.44" (62mm)	3PF-45	833006
4" (100mm)	2.91" (74mm)	2.64" (67mm)	4PF-45	834006
2" (60mm)	2.60" (66mm)	2.87" (73mm)	2PF-45UV	832007
3" (80mm)	2.72" (69mm)	2.44" (62mm)	3PF-45UV	833007
4" (100mm)	2.91" (74mm)	2.64" (67mm)	4PF-45UV	834007

Note: "UV" at the end of the model number indicates White UV rated.

- Used for offsets around obstacles
- Optional White UV resistant for exterior applications
- Optional HVST screen (sold separately) for elbow terminations or air intakes
- Reference instructions for friction loss (equiv length)

Tee / PF-T

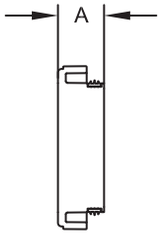


Order UL required locking bands (PF-LB), separately

Diameter	"A"	"B"	Model #	Part #
2" (60mm)	8.07" (205mm)	4.33" (110mm)	2PF-T	832011
3" (80mm)	8.27" (210mm)	4.13" (105mm)	3PF-T	833011
4" (100mm)	8.27" (210mm)	4.13" (105mm)	4PF-T	834011

- Alternate choice for changing direction, inspection (TC), or collecting condensate vertically or horizontally (TCD)
- Reference instructions for friction loss (equiv length)

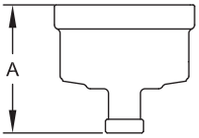
Tee Cap / PF-TC



Diameter	"A"	Model #	Part #
2" (60mm)	1.38" (35mm)	2PF-TC	832013
3" (80mm)	1.06" (27mm)	3PF-TC	833013
4" (100mm)	1.38" (35mm)	4PF-TC	834013

- Used on Tee for inspection

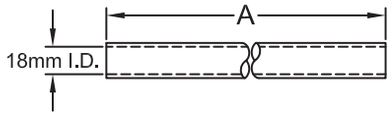
Tee Cap with Drain / PF-TCD



Diameter	"A"	Model #	Part #
2" (60mm)	3.11" (79mm)	2PF-TCD	832014
3" (80mm)	3.31" (84mm)	3PF-TCD	833014
4" (100mm)	3.46" (88mm)	4PF-TCD	834014

- Used to drain condensate away when using a Tee at the base of a vertical system or if Tee is used horizontally (branch pointing down)
- Requires 7/8" diameter condensate tube (CDT, sold separately)

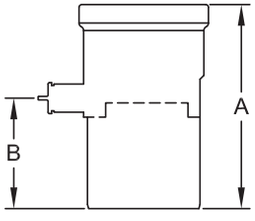
Condensate Drain Tube / PF-CDT



"A"	Model #	Part #
10' (3048mm)	PF-CDT	833100

- 7/8" (18mm) diameter vinyl tubing
- Used to drain condensate away from inline drains (CD), or drain tee caps (TCD)

Inline Condensate Drain / PF-CD

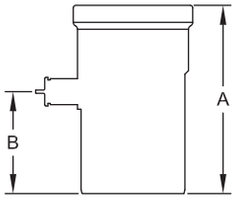


Order UL required locking bands (PF-LB), separately

Diameter	"A"	"B"	Model #	Part #
2" (60mm)	N/A	N/A	N/A	N/A
3" (80mm)	5.71" (145mm)	3.11" (79mm)	3PF-CD	833010
4" (100mm)	6.1" (155mm)	3.46" (88mm)	4PF-CD	834010

- Alternate choice, horizontal or vertical, if no provision for collecting condensate is available at the appliance
- For 2", if needed horizontally, use a Tee with branch pointing down and a Drain Tee Cap (TCD)
- Requires 7/8" diameter condensate tube (CDT, sold separately)

Test Port / PF-TP

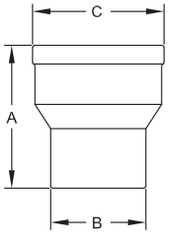


Diameter	"A"	"B"	Model #	Part #
2" (60mm)	5.59" (142mm)	2.79" (71mm)	2PF-TP	832005
3" (80mm)	5.71" (145mm)	3.11" (79mm)	3PF-TP	833005
4" (100mm)	5.51" (140mm)	2.76" (70mm)	4PF-TP	834005

- Used for testing flue gases

Order UL required locking bands (PF-LB), separately

Increaser / PF-I

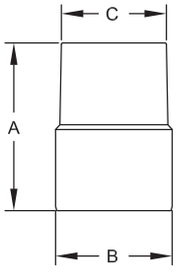


Diameter	"A"	"B"	"C"	Model #	Part #
2" (60mm)	5.27" (134mm)	2.36" (60mm)	3.15" (80mm)	2PF-2I3	832015
3" (80mm)	4.73" (120mm)	3.15" (80mm)	3.94" (100mm)	3PF-3I4	833015
4" (100mm)	N/A	N/A	N/A	N/A	N/A

- If used horizontally a condensate drain must be installed immediately downstream

Order UL required locking bands (PF-LB), separately

Reducer / PF-R

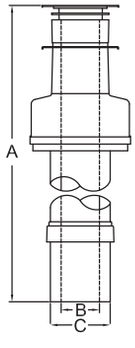


Diameter	"A"	"B"	"C"	Model #	Part #
2" (60mm)	N/A	N/A	N/A	N/A	N/A
3" (80mm)	4.52" (115mm)	3.15" (80mm)	2.36" (60mm)	3PF-3R2	833016
4" (100mm)	3.07" (78mm)	3.94" (100mm)	3.15" (80mm)	4PF-4R3	834015

- Appliance manufacturer must approve the use of reducers

Order UL required locking bands (PF-LB), separately

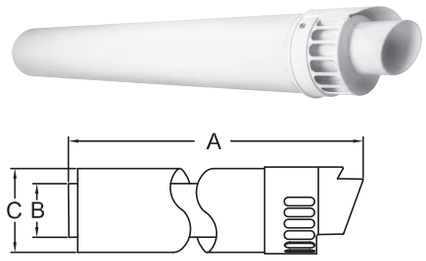
Vertical Concentric Termination / PF-VCT



Diameter	"A"	"B"	"C"	Model #	Part #
2" (60mm)	39.37(1000mm)	2.36" (60mm)	3.94" (100mm)	2PF-VCT	832022
3" (80mm)	47.40" (1204mm)	3.15" (80mm)	4.92" (125mm)	3PF-VCT	833023
4" (100mm)	N/A	N/A	N/A	N/A	N/A

- Black UV resistant
- Use with twin pipe to concentric adapter (CTA) for one penetration through the roof for exhaust & air intake
- Can be field cut shorter if necessary

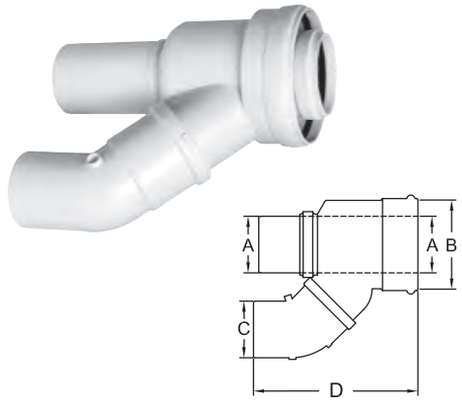
Horizontal Concentric Termination / PF-HCT



Diameter	"A"	"B"	"C"	Model #	Part #
2" (60mm)	33.50" (851mm)	2.36" (60mm)	3.94" (100mm)	2PF-HCT	832023
3" (80mm)	35.43" (900mm)	3.15" (80mm)	4.92" (125mm)	3PF-HCT	833024
4" (100mm)	35.35" (898mm)	3.94" (100mm)	5.91" (150mm)	4PF-HCT	834021

- White UV resistant
- Use with twin pipe to concentric adapter (CTA) for one penetration through the wall for exhaust & air intake
- Can be field cut shorter if necessary
- Reference instructions for friction loss (equiv length)

Twin Pipe to Concentric Adapter / PF-CTA



Diameter	"A"	"B"	"C"	"D"	Model #	Part #
2" (60mm)	2.36" (60mm)	3.94" (100mm)	2.36" (60mm)	8.82" (224mm)	2PF-CTA	832024
3" (80mm)	3.15" (80mm)	4.92" (125mm)	3.15" (80mm)	9.17" (233mm)	3PF-CTA	833025
4" (100mm)	3.94" (100mm)	5.91" (150mm)	3.94" (100mm)	10.43" (265mm)	4PF-CTA	834022

- Use with concentric terminations, VCT & HCT

Order UL required locking bands (PF-LB), separately

Flex Pipe Roll / PF-FLEX

Diameter	"A"	Model #	Part #
2" (60mm)	19.69"(500mm)	2PF-FLEX	832039
3" (80mm)	19.69"(500mm)	3PF-FLEX	833039
4" (100mm)	19.69"(500mm)	4PF-FLEX	834039

- 66 foot roll, for use with vertical vent systems only
- Field cut in 20" or 40" increments, as necessary (see instructions)
- Accessory parts for complete installation sold separately (FLEX-KIT) for lining masonry chimneys.
- Can be used for a single appliance to re-line unused vent systems. Reference PF-BVSC and instructions
- Can be used as a single continuous vent system in a multi-story vertical combustible chase at 0" clearance
- Reference instructions for friction loss (equiv length)

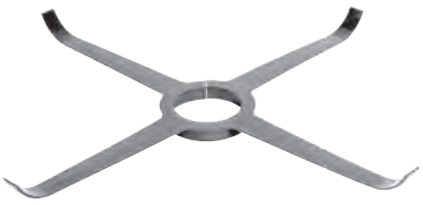
Flex Kit / PF-FLEX-KIT

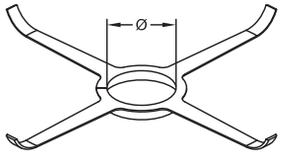
Diameter	Model #	Part #
2” (60mm)	2PF-FLEX-KIT	832051
3” (80mm)	3PF-FLEX-KIT	833051
4” (100mm)	4PF-FLEX-KIT	834051

- For use with masonry re-line installations and includes all necessary components for complete installation. Flex Pipe (PF-FLEX) sold separately.

Includes: Base 90° Elbow **(PF-90)**, Wall Strap Support **(PF-WS)**, (4) Locking Bands **(PF-LB)**, (5) Flex Spacer Bands **(PF-FLEX-SP)**, 39”L UV Pipe **(PF-39UV)**, Aluminum Flashing **(852_90)**, Flex Masonry Support Collar **(PF-SC)**, Optional Bird Screen **(PF-HVST)**, (2) Gaskets **(PF-GKV)**

Flex Spacer / PF-FLEX-SP



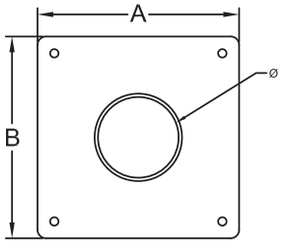


Diameter (Ø)	Model #	Part #
2" (60mm)	2PF-FLEX-SP	832026
3" (80mm)	3PF-FLEX-SP	833027
4" (100mm)	4PF-FLEX-SP	834024

- Plastic flexible centering spacer used for masonry flex re-line installations at every 7ft above the base support
- Packaged with the FLEX-KIT
- Secures around the corrugations in the flexible pipe as the flexible pipe is being dropped down

Firestop, Wall Plate / PF-FS / PF-WP / PF-WPC

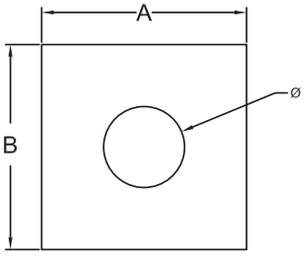
Firestop



Diameter (Ø)	"A"	"B"	Model #	Part #
2" (60mm)	6.00" (152mm)	6.00" (152mm)	2PF-FS	832044
3" (80mm)	7.00" (178mm)	7.00" (178mm)	3PF-FS	833044
4" (100mm)	8.00" (203mm)	8.00" (203mm)	4PF-FS	834044

- Required by UL at every floor level
- Can be field cut in half, if necessary, to install after pipe installation

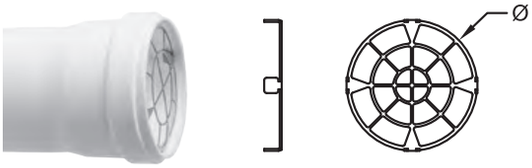
Wall Plate



Diameter (Ø)	"A"	"B"	Model #	Part #
2" (60mm)	8.00" (203mm)	8.00" (203mm)	2PF-WP	832047
3" (80mm)	8.00" (203mm)	8.00" (203mm)	3PF-WP	833047
4" (100mm)	8.00" (203mm)	8.00" (203mm)	4PF-WP	834047
3" x 5" Conc	10.00" (254mm)	10.00" (254mm)	3PF-WPC	833045
4" x 6" Conc	10.00" (254mm)	10.00" (254mm)	4PF-WPC	833046

- Galvalume® trim piece for wall penetrations. Field paintable

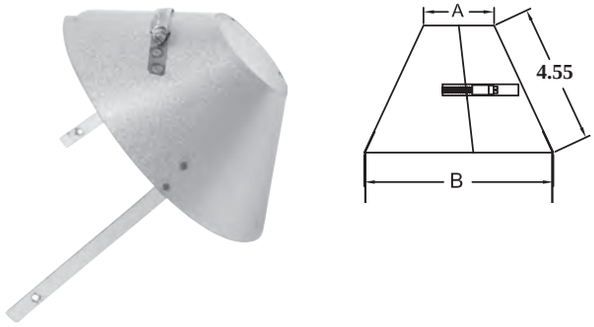
Bird Screen / PF-HVST



Diameter (Ø)	Model #	Part #
2" (60mm)	2PF-HVST	832050
3" (80mm)	3PF-HVST	833050
4" (100mm)	4PF-HVST	834050

- Stainless steel (UL 1738 / ULC S636)
- Optional use with single wall pipe or elbow terminations
- Remove pipe gasket before installation

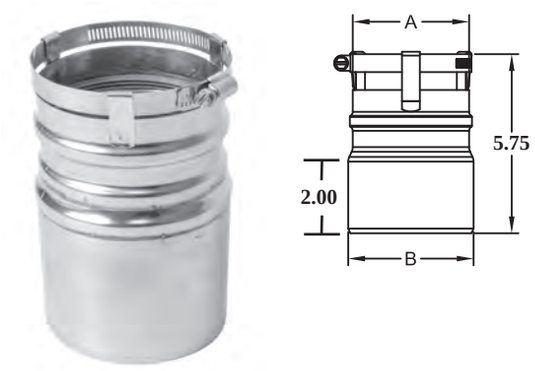
B-Vent Re-line Storm Collar / PF-BVSC



Diameter	"A"	"B"	Model #	Part #
2" (60mm)	2.36" (60mm)	8.21" (174mm)	2PF-BVSC	832052
3" (80mm)	3.15" (80mm)	9.00" (214mm)	3PF-BVSC	833052
4" (100mm)	3.94" (100mm)	9.79" (259mm)	4PF-BVSC	834052

- Galvalume®
- For weatherizing & securing flex pipe to top of unused Vent when relining
- Fastening hardware not included (see instructions)
- Diameter Flex into minimum unused Vent dia: 2" into 4" Vent; 3" into 5" Vent; 4" into 6" Vent

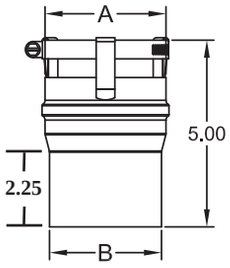
PVC to Poly Adapter / PF-PVC-PF



Diameter	"A"	"B"	Model #	Part #
2" (60mm)	N/A	N/A	N/A	N/A
3" (80mm)	3.15" (80mm)	3.50" (89mm)	3PF-PVC-PF	833040
4" (100mm)	3.94" (100mm)	4.50" (114mm)	4PF-PVC-PF	834040

- Stainless steel (UL 1738 / ULC S636)
- Used to connect Polyflue directly to appliance outlets sized for PVC OD. Field RTV appliance connection as necessary
- 2" Polyflue pipe is readily sized for 2" PVC OD
- Custom adapters available upon request

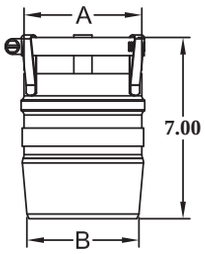
Nominal to Poly Adapter / PF-NOM-PF



Diameter	"A"	"B O.D."	Model #	Part #
2" (60mm)	N/A	N/A	N/A	N/A
3" (80mm)	3.15" (80mm)	3.00" (76mm)	3PF-NOM-PF	833041
4" (100mm)	3.94" (100mm)	4.00" (102mm)	4PF-NOM-PF	834041

- Stainless steel (UL 1738 / ULC S636)
- Used to connect Polyflue directly to appliance outlets sized for nominal diameter. Field RTV appliance connection as necessary
- Custom adapters available upon request

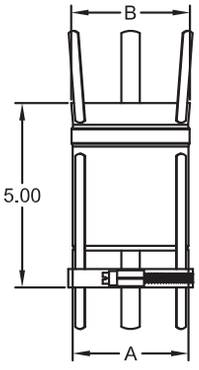
EZ Seal to Poly Adapter / PF-EZ-PF



Diameter	"A"	"B"	Model #	Part #
2" (60mm)	N/A	N/A	N/A	N/A
3" (80mm)	3.15" (80mm)	3.00" (76mm)	3PF-EZ-PF	833042
4" (100mm)	3.94" (100mm)	4.00" (102mm)	4PF-EZ-PF	834042

- Stainless steel (UL 1738 / ULC S636)
- Used to connect Polyflue to Heatfab® EZ Seal female end (i.e appliance outlets). Field RTV appliance connection as necessary
- Custom adapters available upon request

Poly to EZ Seal Adapter / PF-EZ



Diameter	"A"	"B"	Model #	Part #
2" (60mm)	N/A	N/A	N/A	N/A
3" (80mm)	3.15" (80mm)	3.00" (76mm)	3PF-EZ	833043
4" (100mm)	3.94" (100mm)	4.00" (102mm)	4PF-EZ	834043

- Stainless steel (UL 1738 / ULC S636)
- Used to connect Polyflue to Heatfab® EZ Seal male end (i.e. terminations). Field RTV appliance connection as necessary
- Custom adapters available upon request

Gaskets / PF-GKV / PF-GKETV

Straight Pipe / Flex Pipe

Diameter (Ø)	Model #	Part #
2" (60mm)	2PF-GKV	832019
3" (80mm)	3PF-GKVS	833056 (pipe only)
3" (80mm)	3PF-GKV	833020 (flex only)
4" (100mm)	4PF-GKV	834018

Elbows & Tees

Diameter (Ø)	Model #	Part #
2" (60mm)	2PF-GKETV	832020
3" (80mm)	3PF-GKETV	833021
4" (100mm)	4PF-GKETV	834019

- Included with all pipe, fittings and flexible kit
- Order separately for reconnecting flex to flex
- Gasket profile may vary between sizes / pipes

Horizontal Support / PF-HS / PF-HCTHS

Single Wall

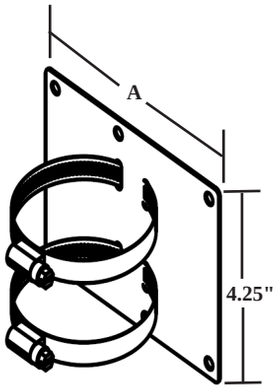
Diameter (Ø)	"A"	Model #	Part #
2" (60mm)	30.00(762mm)	PF-HS	832045
3" (80mm)	39.00(991mm)	PF-HS / 4PF-HS	832045 / 834045
4" (100mm)	48.00(1219mm)	4PF-HS	834045

Horizontal Concentric

Diameter (Ø)	"A"	Model #	Part #
2" (60mm)	N/A	4PF-HS	834045
3" (80mm)	N/A	3PF-HCTHS	833054
4" (100mm)	N/A	4PF-HCTHS	834054

- Includes hose clamp & plumbers strap (24" long) to hang from floor joist
- Install with a 0.375" / foot (2 deg) upward slope away from appliance
- Only one support needed for horizontal concentric terminations

Wall Strap / PF-WS / PF-VCTWB



Single Wall

Diameter	"A"	Model #	Part #
2" (60mm)	5.50" (140mm)	PF-WS	832046
3" (80mm)	5.50" (140mm)	PF-WS / 4PF-WS	832046 / 834046
4" (100mm)	5.50" (140mm)	4PF-WS	834046

Vertical Concentric

Diameter (Ø)	"A"	Model #	Part #
2" (60mm)	5.50" (140mm)	4PF-WS	834046
3" (80mm)	5.50" (140mm)	3PF-VCTWB	833053

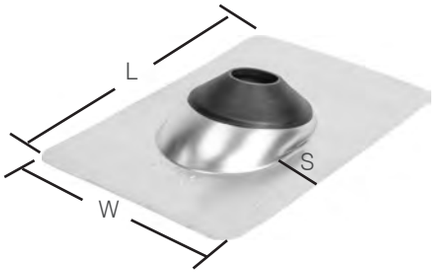
- Galvalume® bracket for vertical installations. Supports 16 feet of pipe
- PF-WS (2" & 3")
- 4PF-WS (3" & 4")
- mounting hardware by others (see instructions)

Locking Band / PF-LB

Diameter	"A"	Model #	Part #
2" (60mm)	3.35(85mm)	PF-LB	832040
3" (80mm)	3.35(85mm)	PF-LB / 4PF-LB	832040 / 834049
4" (100mm)	4.13(105mm)	4PF-LB	834049

- UL requirement at all flue gas stream pipe joints
- PF-LB (2" & 3") factory sized for 3"
- 4PF-LB (3" & 4") factory sized for 4"
- If necessary, can be installed after pipe is mounted by opening up the hose clamps
- Assembly includes: (2) hose clamps and (2) plastic connecting straps
- Patent pending

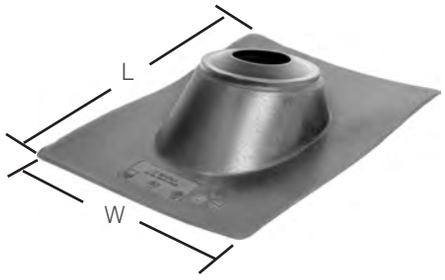
Roof Flashings



Aluminum

Pipe Size	W x L x S	Part #
2"	8.75" x 12.50" x 1.75"	852190
3"	10.75" x 14.50" x 2.25"	852290
4"	12.00" x 15.25" x 2.00"	852390

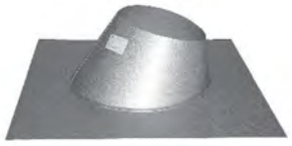
- Used for relining masonry chimneys and packaged with FLEX-KIT
- Used for vertical installation through shingle roof
- Flat to 10/12 pitch
- Self sealing integral rubber boot

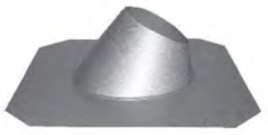


Thermoplastic

Pipe Size	W x L	Part #
2"	9.50" x 13.00"	853190
3"	11.00" x 15.00"	853290
4"	12.00" x 16.00"	853390

- Used for vertical installation through shingle roof
- 2"-4" single wall & 2"x4" vertical concentric pipe
- Flat to 10/12 pitch
- Self sealing integral rubber boot





Galvalume® Flashing & Storm Collar

Pipe Size	Description	Part #
	Adjustable flashing flat - 6/12 pitch	BV4ARF
3" x 5"	Adjustable flashing 7/12 - 12/12 pitch	BV4SRF
	Storm collar	BV4SC

- Used for vertical installation through shingle roof
- 3"x5" vertical concentric pipe

Notes

Notes

polyflue™

5030 Corporate Exchange Blvd.
Grand Rapids, MI 49512

US (800) 992-8368
CA (888) 735-5475

polyflue.com

©2014 Selkirk Corporation PF001 04/14/14