

# Clearances

# Typical Installations

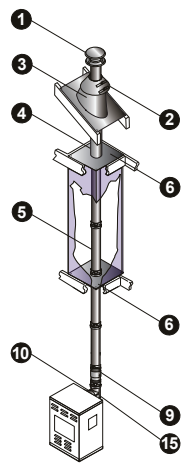
# Commercial Applications

# Contact

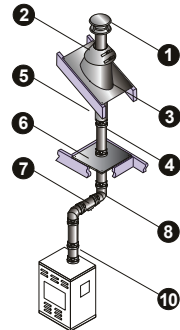
Single-Wall

Rated Operating Temperatures	Clearance to Combustibles			
	Clearance Enclosed		Clearance Unenclosed	
	Horizontal	Vertical	Horizontal	Vertical
194°F (90°C) (Canada only)	0"		0"	
300°F (149°C)	Side: 8" (206.2 mm) Top: 12" (304.8 mm) Bottom: 4" (101.6 mm)	4" (101.6 mm)	1" (25.4 mm)	
480°F (249°C)			3" (76.2 mm)	1" (25.4 mm)
194°F (90°C) (Canada only)	0"		0"	
300°F (149°C)	Non-Combustible enclosures		3" (76.2 mm)	3" (76.2 mm)
480°F (249°C)			3" (76.2 mm)	3" (76.2 mm)

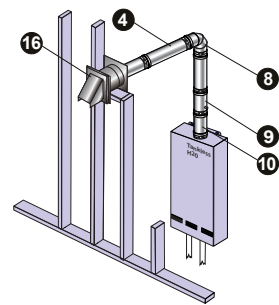
Rated Operating Temperature of 300°F (149°C) = Max Flue Gas Temperature of 375°F (190°C)  
 Rated Operating Temperature of 480°F (249°C) = Max Flue Gas Temperature of 550°F (288°C)



Multi-Story Installation



Attic Offset Installation



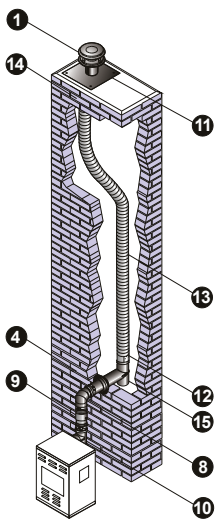
Tankless Water Heater

FasNSeal	
1	Rain Cap
2	Storm Collar
3	Variable Pitch Roof Flashing
4	Vent Length
5	Adjustable Vent Length
6	Firestop/Flat Flashing
7	Horizontal Drip Tee
8	Elbow
9	Universal Condensate Drain
10	Appliance Adapter
11	Top Plate
12	Male Flex Adapter
13	FasNSeal Flex
14	Female Flex Adapter
15	Standard Tee
16	Termination - Wall Thimble with Volumetric Damper

Double-Wall

Rated Operating Temperatures	Clearance to Combustibles			
	Clearance Enclosed		Clearance Unenclosed	
	Horizontal	Vertical	Horizontal	Vertical
194°F (Canada only)	0"		0"	
300°F (149°C)	3" (76.2 mm)	1" (25.4 mm)	1" (25.4 mm)	1" (25.4 mm)
400°F (204°C)	6" (152.4 mm)	1" (25.4 mm)	3" (76.2 mm)	1" (25.4 mm)
480°F (249°C)	6" (152.4 mm)	4" (101.6 mm)	3" (76.2 mm)	1" (25.4 mm)
194°F (Canada only)	0"		0"	
300°F (149°C)	3" (76.2 mm)	1" (25.4 mm)	1" (25.4 mm)	1" (25.4 mm)
400°F (204°C)	6" (152.4 mm)	1" (25.4 mm)	3" (76.2 mm)	1" (25.4 mm)
480°F (249°C)	6" (152.4 mm)	4" (101.6 mm)	3" (76.2 mm)	3" (76.2 mm)

Rated Operating Temperature of 300°F (149°C) = Max Flue Gas Temperature of 375°F (190°C)  
 Rated Operating Temperature of 480°F (249°C) = Max Flue Gas Temperature of 550°F (288°C)



FasNSeal Flex & FasNSeal

• Refer to our Typical Venting Installation drawings to select the appropriate component parts for your installation. Additional components are available to meet unique installations, [www.duravent.com](http://www.duravent.com)

• The inner pipe diameter should match the outlet size of the appliance. If it does not, an adapter may be required.

• Check the appliance manufacturer's installation instructions to confirm which types of vent configurations are permitted (i.e. horizontal, vertical, chimney reline, etc.). Also, check for any venting restrictions such as maximum horizontal run, minimum and maximum vertical rise, maximum offset, etc.

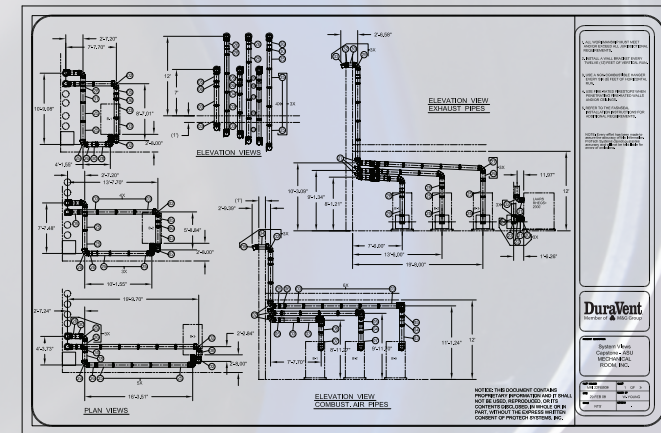
Commercial projects may require custom parts and unique system designs. DuraVent offers complete project assistance for:

• **Engineering Services:** Personalized system design services which offer comprehensive CAD submittal drawings and a complete bill of materials.

• **Custom Parts:** If your project requires innovative solutions contact DuraVent for custom parts to meet a specific project's needs.

• **FasNSeal W2:** W2, the double-wall FasNSeal, is an ideal choice for commercial applications where there exists low clearances to combustibles.

• **Up to 16" Vent Diameters:** Many commercial applications require large diameter systems due to a units size and output. Large diameters are available in single and double wall, featuring FasNSeal's triple lipped directional gaskets and built-in locking band, for safe and convenient installations.

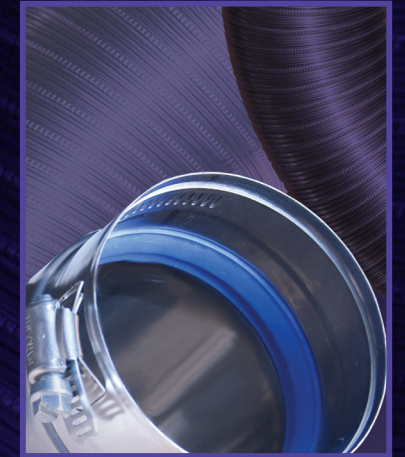


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**FasNSeal & FasNSeal W2**  
 Single-wall and Double-wall special gas vent  
**FasNSeal Flex**  
 Flexible Chimney liner for special gas vent for Category II, III, and IV appliances

UL 1738 and ULC S636

# FasNSeal®

## Applications

FasNSeal, FasNSeal W2, and FasNSeal Flex is for use with natural gas or propane Categories II, III and IV appliances or Canada's Type BH Gas Vent Systems, having a maximum rated operating temperature of 480°F (249°C) and a maximum positive pressure of 6" water column. FasNSeal can be used on a wide range of applications, including: high efficiency gas boilers, furnaces, booster heaters, pool heaters, water heaters, unit heaters, or tankless water heaters.

## Materials and Construction

FasNSeal Single and Double-Wall

3"-7": AL29-4C or 316L .016"

8"-12": AL29-4C or 316L .019"

14"-16": AL29-4C or 316L .024"

FasNSeal Flex

Single strip double layer AL-29C stainless steel (totalling .010").

## Diameters

FasNSeal 3"-16"

FasNSeal Flex 3"-12"

## Listings

FasNSeal and FasNSeal W2

UL Listed to UL 1738 and ULC S636.

FasNSeal Flex

UL Listed to UL 1738,

UL 1777, and ULC S636



# Product List

## FasNSeal

All FasNSeal single and double-wall vent lengths and components feature patented built-in mechanical locking band and triple-lipped directional gaskets. All pipes and components are engineered with smooth clean welds located 90° from mechanical locking bands. This construction feature allows for ease of installation.

All FasNSeal components which come in contact with exhaust gases and condensates are now silicone free. This important design and manufacturing feature greatly reduces the chances of system breakdown and failure. The main problems with silicone are there are too many difficult to control adhesion factors and binding similar materials with an epoxy weaken the bond over time. Welded seams ensure a leak-free product that is meant to last.

## FasNSeal Flex

Made from AL29-4C stainless steel. Corrosion resistant. Manufactured with a sure-seal locking seam for superior strength and flexibility. The smooth inner-wall provides for no output reduction, allowing for full appliance efficiency, ease of cleaning and regular maintenance. The smooth inner wall optimizes gas flow, minimizes back pressure, and facilitates condensate management. Only flexible chimney liner UL listed to UL 1738 standard.

	<b>Standard Wall Mount Kit</b> Kit includes: Wall Thimble w/ Termination, Adjustable 90° Elbow, and Universal Appliance Adapter.
	<b>Severe Weather Kit</b> Kit includes: Wall Thimble w/ Termination Tee, Adjustable 90° Elbow, and Universal Appliance Adapter w/ Condensate Drain and Back Draft Preventer.
	<b>Variable Pitch Flashing Kit</b> Kit includes: Rain Cap, Storm Collar, Roof Jack, and Roof Flashing. VPKA Kit includes a Universal Appliance Adapter w/ Condensate Drain.
	<b>Ceiling Mounted Heater Vent Kit</b> Kit includes: Termination Tee, Wall Thimble w/ Adjustable Vent Length, (2) 12" Vent Lengths, and Universal Appliance Adapter. *4" kit includes Universal Appliance Adapter with Condensate Drain.
	<b>90° Bird Screen Wall Mount Kit</b> Kit includes: 90° Bird Screen Termination, Wall Thimble, Adjustable 90° Elbow, and Universal Appliance Adapter.
	<b>Universal Concentric Kit</b> Use for through-the-wall termination with direct vent wall mounted gas appliances. Features an adjustable right and left hand air intake snout and accommodates wall thickness of 10"-18".
	<b>Wall Mount Concentric Kit</b> Use for through-the-wall termination with direct vent wall mounted gas appliances. Features a fixed right or left hand air intake snout and accommodates a maximum of 8" wall thickness.
	<b>Remote Concentric Kit</b> Use for through-the-wall termination with direct vent gas appliances located away from the wall.
	<b>Vent Length</b> Use to vent category II, III and IV appliances.
	<b>Adjustable Vent Length (AVL)</b> Use to add length to straight length of FasNSeal pipe. Adds 2"-14" of length. Requires at least 2" overlap for a secure connection.
	<b>2" Adjustable Vent Length (AVL)</b> Use to facilitate for the 2" pitched required in horizontal runs.
	<b>FasNSeal Flex</b> Use to vent Category II, III and IV gas burning appliances. Listed to UL 1738. Can only be used in vertical or near vertical runs.

	<b>Male &amp; Female Flex Adapter</b> Use to connect FasNSeal rigid Vent Pipe to FasNSeal Flex at base of masonry chimney or top/bottom termination.
	<b>Test Port</b> Use to test for proper appliance operation without penetrating the vent wall. Easy access to perform flue gas analysis.
	<b>90° &amp; 88° Elbows</b> Use to go from horizontal to vertical runs or vertical to horizontal runs.
	<b>45°, 30° &amp; 15° Elbows</b> Offsets obstructions as needed. Allows for better condensate management and less back pressure.
	<b>Wide Mouth Boot Tee</b> Use to transition from horizontal to vertical. Provides improved flue gas flow with angled gradual transitions. Can also be used as a manifold connection to gang boilers into a common vent.
	<b>Standard Tee</b> Use for a 90° offset, to combine connections from two or more appliances into a common vent or as a condensate management point when used in conjunction with drain fitting. All Standard Tees are completely welded.
	<b>Branch Tee</b> Use as a Tee increaser or as a manifold connection to gang boilers into a common vent. Available in custom size combinations.
	<b>Boot Tee</b> Use to transition from horizontal to vertical with improved flue gas flow.
	<b>Tee Cap</b> Use to cap Standard Tee, Branch Tee or Boot Tee. Remove Tee Cap to inspect the system; clean out debris or collected condensate.
	<b>Universal Condensate Drain</b> Use to properly manage corrosive condensates common with high efficiency gas appliances. Use horizontally, vertically, or any angle between. Diameters 3"-5" have a 3/8" straight tube; 6"-16" have a 1" IPS threaded fitting.
	<b>Drain Fitting</b> Use instead of Tee Cap to manage condensates at the bottom of a vertical run.

	<b>IPS Drain Fitting</b> Use to connect iron drain pipe to flow acidic condensates to a neutralization tank before disposal. Uses 1" NPT thread.
	<b>Horizontal Drain Fitting</b> Use to manage condensates in horizontal runs. Optimal when ganging multiple appliances into a common vent. Diameters 3"-5" have a 3/8" straight tube; 6"-16" have a 1" IPS threaded fitting.
	<b>Horizontal Drip Tee</b> Use to manage condensate in horizontal runs.
	<b>Bird Screen</b> Use for 3" and 4" standard through-the-wall terminations.
	<b>23" Bird Screen</b> Use for 5" to 16" through-the-wall termination. Deters rain and other elements from entering the vent system.
	<b>Termination Tee</b> Use for standard and high-wind through-the-wall terminations.
	<b>Termination Box</b> Use for through-the-wall terminations. Deflects flue gases while protecting from debris.
	<b>Wall Thimble w/ Termination Damper</b> Use for horizontal through-the-wall terminations. Accommodates wall thickness of 4 1/4" to 8 1/2".
	<b>Wall Thimble w/ AVL</b> Use for through-the-wall termination. Fits between standard wall studs. AVL pipe allows for adjustability in length variance.
	<b>Wall Pass Through</b> Use for through-the-wall termination. Fits between standard wall studs. 3"-5" diameters accommodates wall thickness of 4 1/4" to 8 1/2". 6"-16" diameters accommodate wall thickness of 5 3/4" to 11 1/2".
	<b>Wall Thimble Sleeve Extension</b> Use to add 6" of length to Wall Pass Through and Wall Thimble for thicker walls.
	<b>Firestop/Flat Flashing</b> Use when penetrating floor levels.
	<b>Support Clamp</b> Use to support vertical runs. Recommended every 10' on vertical runs and every 6' in horizontals. Use additional Support Clamps as needed.

	<b>Wall Bracket</b> Use to support vent pipe or tee sections. Provides proper clearance to combustibles.
	<b>Adjustable Wall Bracket</b> Use to support vent pipe in lateral and horizontal runs. Assist in achieving proper pitch for condensate management.
	<b>Rain Cap</b> Use to terminate above the roof line.
	<b>Severe Weather Rain Cap</b> Use with terminations in high wind conditions. For through-the-wall applications. Fits all caps and snorkels.
	<b>Termination Cone</b> Use for vertical termination. Venturi effect increases velocity of flue gases. Reduced opening provides for a smaller cross section to deter rain from entering the system. Order in any size combination.
	<b>Storm Collar</b> Use to create a weather tight seal between the pipe and flashing.
	<b>Roof Jack</b> Use as a heat shield within the flashing. Maintains center-line and clearance to combustibles.
	<b>Variable Pitch Roof Flashing</b> Use to create a weather-tight penetration where the vent pipe passes through the roof. Roof Jack and Storm Collar required. Accommodates flat to 9/12 roof pitch.
	<b>Tall Cone Roof Jack</b> Use as a heat shield within the flashing. Use with Tall Cone Flashings.
	<b>Tall Cone Flashing</b> Use to create a weather-tight penetration where the vent passes through the roof. Tall Cone Roof Jack and Storm Collar required.
	<b>Increases</b> Use to increase vent system diameter.
	<b>Reducers</b> Use to reduce vent system diameter.
	<b>Appliance Adapters</b> Use to connect FasNSeal Vent System to many gas-burning heating appliances.
	<b>Double-Wall Adapter</b> Use to transition from a single-wall pipe to double-wall pipe.