



Chimneys, Flues & Ventilation

Acceptable Chimneys

EcoBoilers are natural-draft appliances, which means they must be connected to a chimney. The standard for conformance for chimneys is NFPA 211.

In short, the chimney must be suitable for wood heating. The most common wood heating chimneys are factory-built, residential-type chimneys (such as Type HT), and stainless-steel liners in masonry chimneys (see other side for many examples). Galvanized steel pipe and Type B Gas vents are not suitable.

No other appliance can be attached to the same flue.

*Other acceptable chimneys include masonry chimneys with clay flue lining or fireclay brick complying with High Heat chimney types in NFPA 211 Table 5.2.2.1 (contact EHS for details), and chimneys made from other materials that resist corrosion, erosion, softening, or cracking from flue gases and condensate at temperatures up to 1800°F.

Breeching / Connector Pipe to Chimney

Six inch diameter single wall stove pipe is sufficient for the chimney connection as long as combustibles are 18" or more from the pipe.

The flue collar on the boiler is a nominal 4". A 4" appliance adapter is included with the boiler to make installation easier. A 4" to 6" adapter (such as Simpson Part # 4PVP-X6) should be placed on the appliance adapter provided with the EcoBoiler. The stove pipe should be 6" diameter.

Chimney Installation

The top of the chimney must be at least 3' above the roof surface at the penetration. It must be a minimum of 2' above any point on the roof within 10' (measured horizontally from the chimney outlet). All aspects of the chimney installation must conform to NFPA 211 or local codes.

Barometric Draft Stabilizers

Use of a barometric draft damper will help the heating system run consistently well. Examples are Field Controls' Type RCBT, and SPX Tigerholm's Tigex draft stabilizer.

Chimney Cleaning

The chimney should be cleaned annually. Creosote is the most dangerous compound associated with wood heating. Because wood pellets have low moisture content, the chance of creosote build-up is low, but not zero. However, soot can still build up over time. Soot has the potential to catch fire if enough of it is present, and if temperatures are high enough. This should never be a problem if chimneys are swept clean annually.

Ventilation

Do not install in space where gasoline or other flammable vapors are present. Do not install in areas where chlorine is present, such as laundry areas. Chlorine in the air is corrosive to burner, boiler, and chimney parts.

In buildings that are so tight that normal infiltration does not provide the necessary air, outside air shall be introduced through other means.

See manual for more details on ventilation requirements.



All-Fuel Chimneys		Double Wall		Material	Notes	UL 103HT
Simpson Dura-Vent	DuraTech	X		.020" 430 SS (inner wall)		X
Selkirk L.L.C.	MetalBest, Ultra-Temp, Galva-Temp, Sure-Temp	X		304 inner		X
	SuperPro, SuperVent	X				X
ICC (Industrial Chimney Co., Inc.)	EXCEL	X		.016" stainless steel (inner & outer)		X
Olympia Chimney Supply	Ventis	X		304L or 316L inner		X
Liners		Rigid	Flexible	Material		UL 1777
Simpson Dura-Vent Co., Inc.						
	DuraLiner	X	X	.016" 304 SS	factory insulated, double wall	X
	Ventinox	X	X	.006" 316Ti SS	must be insulated to meet UL 1777	X
	DuraFlex 304		X	.005" 304 SS	must be insulated to meet UL 1777	X
Selkirk L.L.C.						
	Saf-T Liner	X	X	24 gauge, 304L stainless steel.		X
	Versa-Liner	X	X	Use the same components with either Rigid or Flex.		X
ICC (Industrial Chimney Co., Inc.)						
	EXCELiner	X		Type 304 SS		X
Olympia Chimney Supply						
	Forever Flex		X	304L SS .006" / 316Ti .005 & .006"		X
	Armor Flex		X	304L and 316L		X
	Rhino Rigid	X		316L and 304L		
MagnaFlex Industries, Inc.						
	Magnaflex	X	X			X
Z-Flex (US)Inc						
	Z-Rigid	X		316Ti		X
	Smoothcore Model "SF"		X	316Ti		X
Others: Flexmaster, TruFlex, Flex-L, Homeowners Choice, Homesavers, TransContinental, Elmers, etc.						
Breeching /Connector Pipe		Single Wall		Double Wall		
Simpson Dura-Vent Co., Inc.						
	DuraBlack DVL	X		24 gauge steel		
			X	.016" SS inner wall, .018 galvanized black outer wall.		
Selkirk L.L.C.						
	DSP - Double Wall Stove Pipe		X			
	Saf-T Pipe	X		22 gauge steel		
Olympia						
	Ventis Black	X	X			
ICC (Industrial Chimney Co., Inc.)						
	ULTRABlack		X			

ICC (Industrial Chimney Co., Inc.)
 St-Jerome, Quebec
<http://www.icc-rsf.com>
 450-565-6336

MagnaFlex Industries, Inc.
 Mt. Sterling, KY
<http://www.magnaflex.us/>
 800-487-3539

Selkirk L.L.C.
 Grand Rapids, MI
www.selkirkcorp.com
 800-992-8368

Olympia Chimney Supply
 Scranton, PA
<http://www.olympiachimney.com>
 800-569-1425

Simpson Dura-Vent Co., Inc.
 Vacaville, CA
www.duravent.com
 800-835-4429

Z-Flex (US)Inc
 Bedford, NH
<http://www.novaflex.com>
 603-669-5136