ENERVEX
POWERSTACK CHIMNEY SYSTEM
Models EPS, EPS1, EPS2 & EPS4

3912065 11.15 **Product Information**

Use
The PowerStack EPS system is a state-of-the-art multi-application single or twin-walled exhaust product designed to convey gases, particles, fumes, smoke, grease and products of combustion from a wide range of engineering combustion and process equipment under negative, positive or neutral pressure:

- Condensing and non-condensing Boiler Exhaust
- Diesel engine and Gas Turbine Exhaust
- Restaurant and Kitchen Grease Exhaust
- Coffee Roaster Exhaust
- Industrial Oven and Dryer Exhaust
- And much more

Description
The PowerStack EPS is a one-type-fits-all pre-fabricated stainless steel exhaust chimney, available in single or double-wall configuration with three available insulation thicknesses to meet the most demanding applications. Available in twenty two internal diameters ranging from 4 inch (100mm) to 48 inch (1200mm). The fully welded inner wall/liner is manufactured from corrosion resistant bespoke 316L-PCM stainless steel and the outer jacket of 304 polished stainless steel. The double-wall EPS is available with 1 inch (25mm), 2 inch (50mm) and 4 inch (100mm) insulation.

All components are designed to be installed without the need for modification, welding or cutting of the product. PowerStack offers a full range of components including set lengths, elbows, tees, appliance adaptors, terminals, clean-outs, expansion sections and supports as well as special angled components, such as 87° elbows/Tees, Duct Drains, Condensate Collectors and Drain Sections to facilitate drainage of condensate when used with condensing appliances.

The PowerStack incorporates a patent pending flanged male/female jointing system. One end of a component has a collar that facilitates easy alignment of the flanges to aid installation of the product.
Gas and liquid tightness is guaranteed by a graphite gasket which is bonded to the flange and eliminates the need for a sealant. The gasket is designed for extremely high temperatures and pressures and immune to breakdown by acidic condensate.
An easy-to-install overlapping U-Band compresses the gasket and secures the joint. An insulation blanket and a finishing band with snap-locks to cover the joint connection.

Material
The fully welded inner wall is manufactured from corrosion resistant bespoke 316L-PCM stainless steel (“PCM” for “Purified Cr and Mo” content).
Thickness 4”– 24”: 0.024 inch (0.6mm)
Thickness 26”– 38”: 0.048 inch (1.0mm)
Thickness 44”– 48”: 0.048 inch (1.2mm)
The fully welded outer wall is manufactured from 0.024 inch (0.6mm) polished 304 stainless steel.
The double-wall EPS is available with 1 inch (25mm), 2 inch (50mm) and 4 inch (100mm) insulation.

Listings
The ENERVEX PowerStack EPS venting systems are Listed by Underwriters Laboratories, Inc. (UL) under UL File MH61178 in the following product categories and diameters indicated:

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UL File MH61178

Model EPS (single wall) 4” – 48”	
Building Heating Appliance Chimney	UL103
Special Gas Vent	UL1738
Type BH Gas Vent	ULC S636 for Type BH Gas Vent
Chimney Liner	UL1777
Chimney Liner	ULC S635
Grease Duct for Restaurant Cooking Appliances	UL 1978
Grease Duct	ULC S662

Model EPS1, EPS2, EPS4 (double wall) 4” – 48”	
Building Heating Appliance Chimney	UL103
540°C Industrial Chimney	ULC/ORD C959
1400°F Chimney	UL2561
760°C Industrial Chimney	ULC/ORD C959
Special Gas Vent	UL1738
Type BH Gas Vent	ULC S636-08 for Type BH Gas Vent
Grease Duct for Restaurant Cooking Appliances	UL1978
Grease Duct	ULC S662

Specifications are subject to change without notice.

ENERVEX Inc.
1685 Bluegrass Lakes Parkway
Alpharetta, GA 30004
USA

P: 770.587.3238
F: 770.587.4731
T: 800.255.2923
info@enervex.com
www.enervex.com

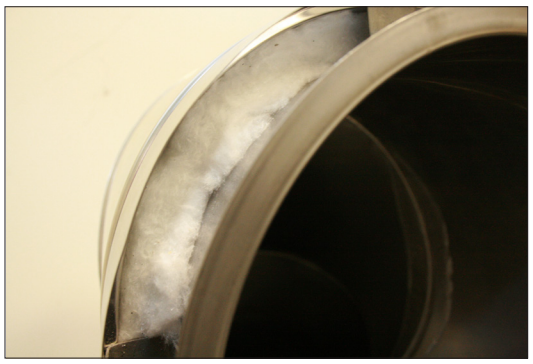
ENERVEX®
VENTING DESIGN SOLUTIONS

Flat Flange For a Perfect Seal

The perfectly flat 1/2” flange seals so well that moisture build-up in the joint is prevented.

The inserted stainless steel collar that represents the male connection is spot-welded to the inner wall and leaves enough clearance to allow condensate to flow freely between inner wall and collar.

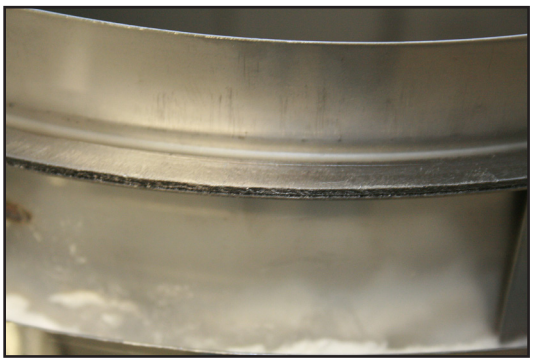
The male/female self-aligning connection with the U-Band makes assembly a “single-person” job.



Graphite Gasket

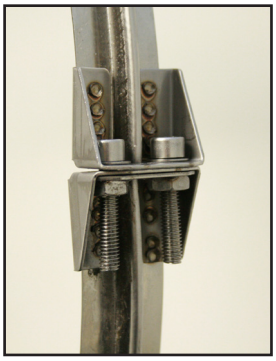
The graphite gasket is permanently secured to the flange of the male connection. With a properly installed U-Band, a perfect pressure and liquid-tight seal is created that doesn’t require any sealant.

The joint can be disassembled and reassembled, and there is no need for cleaning or removal of sealant and no need for cutting or modifying — just remove the U-Band and take the chimney apart.



U-Band

The U-Band is designed so it does not put pressure on the outer edge of the flange. This prevents the flanges from gaping when assembled (common with overlapping V-Bands) and helps the graphite gasket create a perfect seal. The double-nut flange makes assembly easy and a “single-person” job.



Snap-locks

The one-piece channel bands can be installed without the use of tools. The channel band wraps around the outer wall, overlaps and is secured with snap-locks.

Codes and Standards

PowerStack when installed per their Installation Instructions, are code compliant with:

- NFPA 211
- NFPA 54
- NFPA 31
- NFPA 37
- CSA-B149

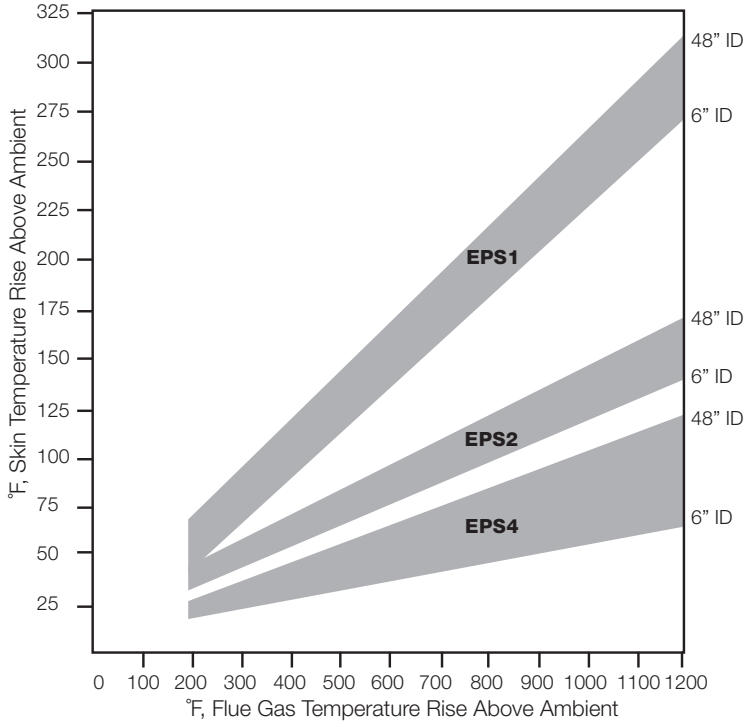
All models comply with the following codes and standards related agencies or associations:

- NFPA (National Fire Protection Association)
- ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers)
- ICC (International Code Congress)
- UL (Underwriters Laboratories, Inc.)
- ULC (Underwriters' Laboratories of Canada)
- CSA (Canadian Standards Association)
- IAPMO (International Association of Plumbing and Mechanical Officials)

Warranty

2 year factory warranty.
Complete warranty conditions are available from ENERVEX Inc.

Outer Jacket Temperature Rise (estimated)



NOTE: The Outer Jacket Temperature Rise chart is intended to be a guide only. It is indicative of the likely outer jacket temperatures for any particular PowerStack application, but cannot be exact as each situation requires a calculation and knowledge of mass flow, velocity of the gases, and the location and situation of the chimney, i.e.: enclosed non-ventilated, enclosed ventilated, not enclosed, external, etc.

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Clearances to Combustible

EPS Min. Airspace Clearance-to-Combustible (Unenclosed)

Pipe ID	Building Heating Appliance Chimney (1,000°F)	Chimney Liner (Gas and Oil)	Special Gas Vent		Grease Duct
			Vertical 480°F Rating	Horizontal 480°F Rating	
4-8" (102-203mm)	18" (450mm)		2" (51mm)	3" (76mm)	See Clearance Chart
10-14" (254-356mm)			3" (76mm)	3" (76mm)	
16" (406mm)			4" (102mm)	4" (102mm)	
18-24" (457-610mm)			5" (131mm)	5" (131mm)	
26-30" (660-762mm)			6" (152mm)	6" (152mm)	
32-38" (812-965mm)			7" (178mm)	7" (178mm)	
40-48" (1016-1200mm)			8" (203mm)	8" (203mm)	

* Enclosed Vertical/Horizontal: DNA

EPS1 Min. Airspace Clearance-to-Combustible (Unenclosed)

Pipe ID	Building Heating Appliance Chimney (1,000°F)	1400°F Chimney	Special Gas Vent (550°F Rating)		Grease Duct
			Vertical	Horizontal	
4-8" (102-203mm)	1" (25mm)	1" (25mm)	0.5" (13mm)	1" (25mm)	See Clearance Chart
12-14" (305-456mm)	2" (51mm)	2" (51mm)			
16-22" (406-568mm)	3" (76mm)	3" (76mm)	1" (25mm)		
24-30" (610-762mm)	4" (102mm)	4" (102mm)	1" (25mm)		
32-38" (812-965mm)	5" (131mm)	5" (131mm)	1" (25mm)		
40-48" (1016-1200mm)	6" (152mm)	6" (152mm)	1" (25mm)		

* Enclosed Vertical: All Sizes - 1" (25mm) / Horizontal: DNA

EPS2 Min. Airspace Clearance-to-Combustible (Unenclosed)

Pipe ID	Building Heating Appliance Chimney (1,000°F)	1400°F Chimney	Grease Duct
4-10" (102-254mm)	1/2" (13mm)	1/2" (13mm)	See Clearance Chart
12-14" (305-456mm)	1" (25mm)	1/2" (13mm)	
16-30" (406-762mm)	2" (51mm)	2" (51mm)	
32-48" (812-1200mm)	3" (76mm)	3" (76mm)	

EPS4 Min. Airspace Clearance-to-Combustible (Unenclosed)

Pipe ID	Building Heating Appliance Chimney (1,000°F)	1400°F Chimney	Grease Duct
4-14" (102-456mm)	1/2" (13mm)	1/2" (13mm)	See Clearance Chart
16-30" (406-762mm)	1" (25mm)	1" (25mm)	
32-48" (812-1200mm)	2" (51mm)	2" (51mm)	

Min. Airspace Clearance-to-Combustible for Grease Duct

Pipe ID	EPS	EPS1	EPS2	EPS4
	18" or Per Local Codes. For single wall construction per NFPA 96	4"	2"	0"
6"		4"	2"	0"
7"		4"	2"	0"
8"		4"	2"	0"
10"		5"	3"	0"
12"		5"	3"	0"
14"		5"	3"	0"
16"		5"	3"	1"
18"		5"	3"	1"
20"		5"	3"	1"
22"		5"	3"	1"
24"		5"	3"	1"

ENERVEX Inc.
1685 Bluegrass Lakes Parkway
Alpharetta, GA 30004
USA

P: 770.587.3238
F: 770.587.4731
T: 800.255.2923
info@enervex.com
www.enervex.com

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