

ENERVEX® VHX 1600–8400 DOUBLE ROW MODELS

020.4130.0521 08.21

Product Information

Use

The VHX, Vortex Heat Recovery Center, is a highly versatile and efficient economizer system with integrated bypass. It is a fully packaged, lightweight, round configuration for easy installation. The stainless steel construction makes it suitable for both condensing and non-condensing applications without any kind of modification.

With the modular design, the economizer can be used for multiple applications simultaneously: one module can be used for preheating of feed-water, one module for domestic hot water, and one module for direct pool heating, etc.

The VHX can be used with CASV and CASI Chimney Automation Systems. Other applications include, but are not limited to:

- Single or multiple boilers
- Forced draft or atmospheric boilers
- Condensing or non-condensing boilers
- Baking Ovens
- Kettles
- Process Applications
- Chillers
- Thermal oxidizers
- Waste Heat-to-Power Generators
- Engine, turbine and high temperature exhaust systems

Description

The economizer is fully designed and packaged to combine with an automated mechanical draft system capable of optimizing the exhaust rate of the appliance to completely stabilize the appliance efficiency as well as to assure a proper and constant draft for the appliance. This allows a single economizer to serve multiple boilers no matter whether they are of atmospheric, fan-assisted or forced draft design.

The compact design utilizes a modular design with one or more stainless steel plate heat modules each with supply and return connections representing individual liquid circuits. Individual circuits can be connected to one or more common headers in accordance with the specific application. The connections are tapered (optional) or straight with proprietary bolt flanges. A TDF Exhaust Fan can be attached to the mating flange as needed.

The heat modules are designed to handle asymmetric volume flows with exceptionally high performance and are mounted in a tray system that allows it to slide out for service or cleaning.

A modulating damper design provides bypass capabilities for use with dual fuel applications, and also prevents over-heating of the heat modules, while eliminating nuisance shutdowns.



Flexible tube connections are included as standard.

Material

Housing and heat exchanger plates are made in 316L (1.4404) stainless steel.

Warranty

2-Year Factory Warranty. Complete warranty conditions are available from ENERVEX Inc.

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Specifications

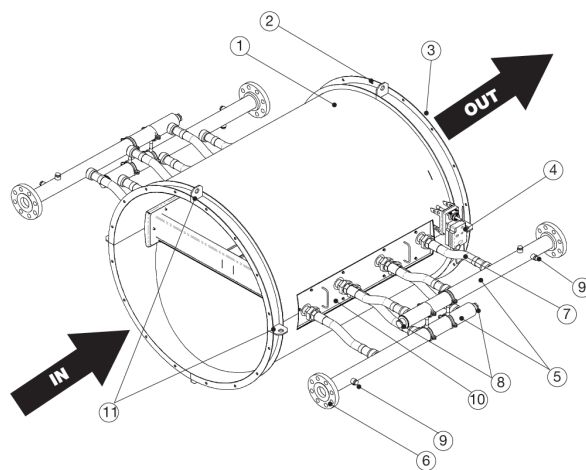
Double Row Models	VHX 1600-22DR	VHX 3200-33DR	VHX 4200-44DR	VHX 5400-55DR	VHX 6400-66DR	VHX 7400-77DR	VHX 8400-88DR	
Housing Material	ASTM 316L / 1.4404							
Heat Exchanger Material	ASTM 316L / 1.4404							
No. Heat Modules	4	6	8	10	12	14	16	
Heat Module Type	Cross 30-140	Cross 30 - 140	Cross 30 - 140	Cross 30 - 140	Cross 30 - 140	Cross 30 - 140	Cross 30 - 140	
Heat Exchanger Plate Surface Area Ft ²	416	624	832	1040	1248	1456	1664	
Operating Pressure Max PSI	230							
Water Connection NPT ¹⁾	1 1/4" NPT MALE							
Weight (Dry) lbs/kg	350 / 159	512 / 232	667 / 303	824 / 374	982 / 445	1139 / 517	1297 / 588	
Weight (Wet) lbs/kg	394 / 179	578 / 262	755 / 342	934 / 424	1114 / 505	1293 / 586	1473 / 668	
Dimensions	Length in/mm	39.0 / 991	50.0 / 1270	65.0 / 1651	78.0 / 1981	96 / 2438	102 / 2591	130 / 3302
	ID in/mm	36.0 / 914	42.0 / 1067	42.0 / 1067	48.0 / 1219	48 / 1219	54 / 1372	54 / 1372
	flange OD in/mm	39.0 / 965	45.0 / 1143	45.0 / 1143	51.0 / 1295	51 / 1295	57 / 1448	57 / 1448
No. of Flange Bolt Holes	16							

¹⁾ NPT adaptors available from ENERVEX, Inc.

Larger sizes available upon request; contact ENERVEX, Inc. with specifications.

Economizer Components

1. Economizer housing
2. Mounting flanges (bolt flange)
3. Damper (not pictured)
4. Modulating actuator
5. Header (optional)
6. Connection Flange
7. Flexible connectors
8. Connection for pressure relief valve
9. Connection for water temperature sensor
10. Cover for heat module chamber
11. Lifting/Mounting Lug



Specifications are subject to change without notice.

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