

ENERVEX®

VHX 100SR-3200SR ECONOMIZERS

020.4110.0521 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

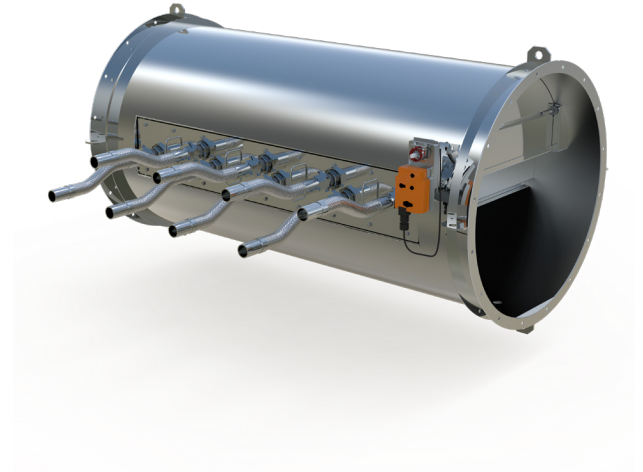
Description

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

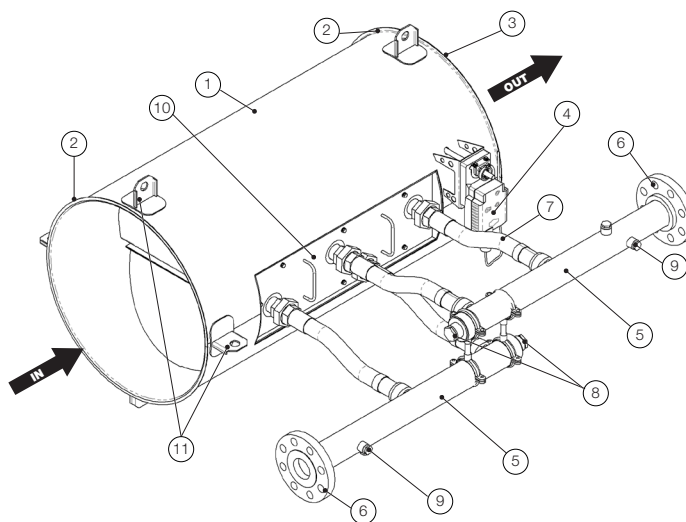
| Single Row Models | VHX 100-10SR | VHX 250-10SR | VHX 400-10SR | VHX 800-20SR | VHX 1200-30SR | VHX 1600-40SR | VHX 2400-50SR | VHX 3200-60SR | |
|---|--------------------|-----------------|--------------|--------------|---------------------|---------------|---------------|---------------|-------------|
| Housing Material | ASTM 316L / 1.4404 | | | | | | | | |
| Heat Exchanger Material | ASTM 316L / 1.4404 | | | | | | | | |
| No. Heat Modules | 1 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | |
| Heat Module Type | Cross 30-60 | Cross 30-100 | 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 | 45 | 74 | 104 | 208 | 312 | 416 | 520 | 624 | |
| Operating Pressure Max PSI | 230 | | | | | | | | |
| Water Connection NPT ¹⁾ | 1" NPT | 1 1/4" NPT MALE | | | | | | | |
| Weight (Dry) lbs/kg | 57 / 26 | 77 / 35 | 97 / 44 | 183 / 83 | 302 / 137 | 423 / 192 | 577 / 262 | 736 / 334 | |
| Weight (Wet) lbs/kg | 65 / 30 | 80 / 36 | 115 / 52 | 220 / 100 | 357 / 162 | 486 / 225 | 668 / 303 | 845 / 384 | |
| Dimensions | Length in/mm | 24.0 / 610 | 24.0 / 610 | 26.0 / 660 | 42.0 / 1067 | 50.0 / 1270 | 64.0 / 1626 | 78.0 / 1981 | 90.0 / 2286 |
| | ID in/mm | 12.0 / 305 | 16.0 / 406 | 20.0 / 508 | 22.0 / 559 | 26.0 / 660 | 30.0 / 762 | 36.0 / 914 | 42.0 / 1067 |
| | Flange OD in/mm | 13.0 / 329 | 17.0 / 430 | 21.0 / 532 | 23.0 / 584 | 29.0 / 737 | 33.0 / 838 | 39.0 / 991 | 45.0 / 1143 |
| Flange | 1/2" U-Band Flange | | | | 16 Bolt Hole Flange | | | | |

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 (1/2" or 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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