

ENERVEX® HCU HEAT CONVERSION UNIT

020.4910.0125 01.25

Product Information

Use

The HCU Heat Conversion Units are designed to combine with ENERVEX's heat recovery technologies.

Each HCU system can deliver from 280MBH (80kW) up to 1,350 MBH (400kW) of high temperature heating or hot potable water.

The HCU's can be used individually or combined on the user side while still being combined to a single ENERVEX heat recovery system.

It can be used to preheat multiple heat sinks simultaneously such as building make-up air, domestic hot water, hydronic loop, boiler make-up, pool water, etc.

The HCU is typically used with ENERVEX VHX, DCX, RHX & IHX economizer to reach 100+% efficiency .

Description

The ENERVEX HCU Heat Transfer System is the ultimate, turnkey skid solution. It is fully designed and packaged to combine easily with our ENERVEX heat recovery systems in order to maximize heat recovery and CO2 reduction.

The system integrates high temperature heat pump technology to extract all the energy available in the hot flue gases. This results in flue gases temperature between 60°F to 80°F while still delivering hydronic or potable water up to 170°F.

The compact modular design can fit thru a standard door.

The fully modular packaged system includes:

- Plumbing
- Circulation pump(s)
- Expansion & Buffer tank(s)
- Controls

Perfectly sized to use with all ENERVEX heat recovery systems

Heating or Potable water up to 170°F (77°C)

Year-round heating COP of 3.7

Applications

Typical applications include:

- Hospitals
- Hotels
- Pools and aquatic parks
- Condos and Apartments
- Pulp & Paper Mills
- Chemical Plants
- Concrete and Ready Mix Plants
- Food, Meat & Poultry Processing



- Breweries and Distilleries
- Bottling & Packaging
- Industrial & textile plants
- Automotive Plants
- Commercial Laundries

Warranty

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

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Performance Test Data

Performance Test Conditions: 50 EWT, 140 EWT, 100% Water Source Side

Model	Supply Heating Capacity (Btu/hr)	Source Cooling Capacity (Btu/hr)	Power Input (kW)	Heating COP	Cooling COP	Combined COP
HCU-1	280,400	203,630	22.5	3.7	2.7	6.3
HCU-2	560,800	407,260	45	3.7	2.7	6.3
HCU-3	841,200	610,890	64.5	3.7	2.7	6.3
HCU-4	1,121,800	814,520	90	3.7	2.7	6.3
HCU-5	1,402,000	1,018,150	112.5	3.7	2.7	6.3

Specifications

Main Power Input: 208-230/3/60 or 460/3/60 or 575/3/60

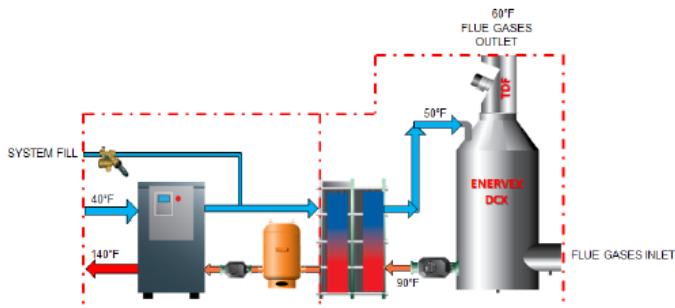
Each HCU can deliver 280,000 btu/hr (80kW) up to 1,350,000 btu/hr (400kW) of heat per heat sink. HCU's can be used individually or combined or on the user side while combined to a single Enervex heat recovery system. Single HCU dimension is 33"(W) x 120"(L) x 100" (H). Units can be shipped to fit through standard door.

Skid Connections

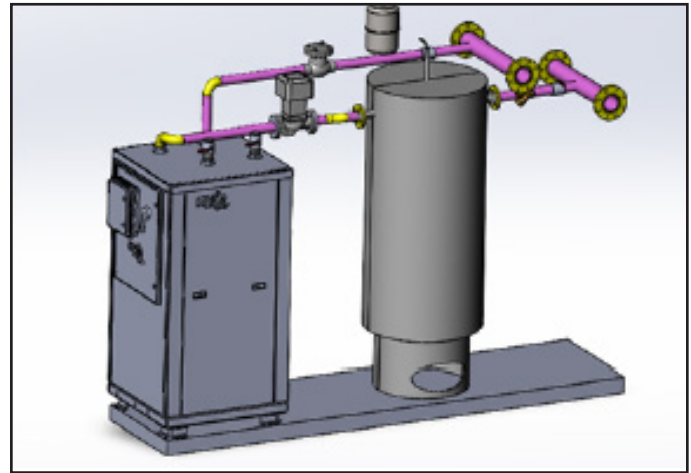
1. One (1) electrical power connection
2. One (1) control interconnection
3. One (1) source side water inlet
4. One (1) source side water outlet
5. One (1) source side drain connection

Note: Building side piping connection(s) determined on a per project basis.

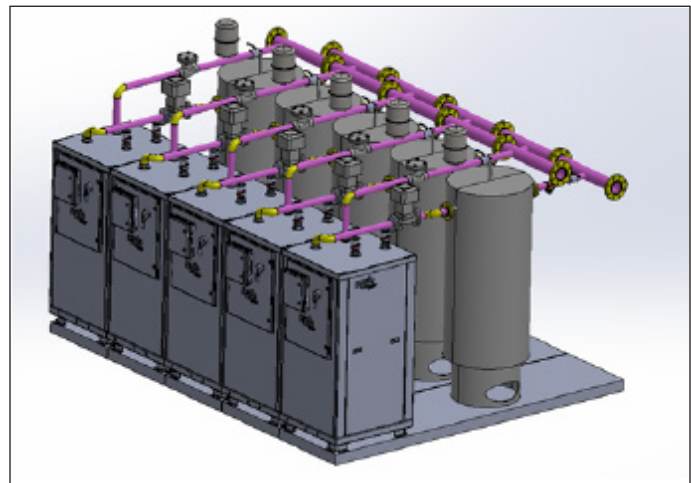
Component Diagram



Typical Single Unit Arrangement



Typical Combined Arrangement



Specifications are subject to change without notice.

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