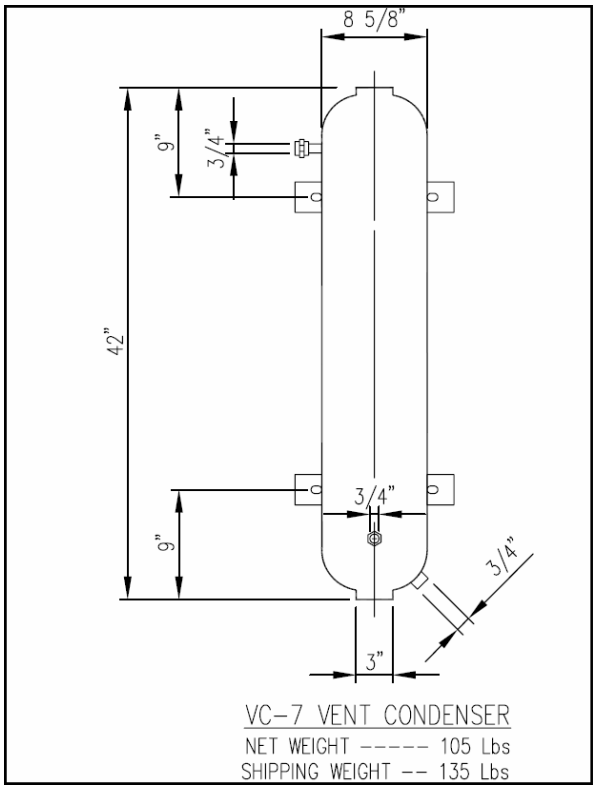
VC-7 Vent Condenser

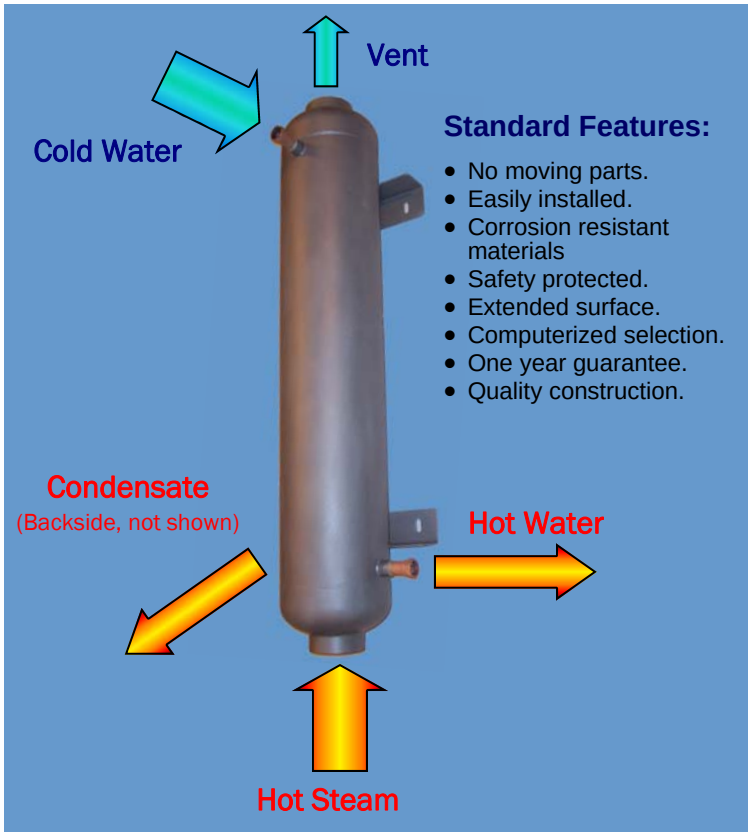
The Concept:

The vent condenser is a plume abatement device. Vented steam is directed into the unit where it is cooled and condensed by cold plant water. Energy is continuously recovered at a rate of 970 BTU's for every pound of steam contained in the plume. It is recovered in two forms, hotter water and clean distilled condensate ready for productive use elsewhere in your operation.

Benefits:

1. Energy recovery from latent heat process.
2. Water recovery from plume condensate.
3. Stop moisture damage to the roofing structure.
4. Prevent ice/snow build up on the roof in winter months.
5. Aesthetic reasons: removal of the steam plume.





Standard Features:

- No moving parts.
- Easily installed.
- Corrosion resistant materials
- Safety protected.
- Extended surface.
- Computerized selection.
- One year guarantee.
- Quality construction.

Typical Application

Operation	
Vent Exhaust-Pounds of Steam Per Hour	500
Water-Gallons Per Minute	11
Water Temperature-Degrees Farenheit	60
Typical Conditions	
Water Pressure Drop-Pounds Per Square Inch	22
Condensate Pressure Drop-Inch W.C.	.1
Performance	
Total BTU's Recovered Per Hour	582,000
Weight	
Pounds	105

Come check us out on the web,

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VC-7 Vent Condenser

CANNON Vent Condensers can be used wherever steam is vented to the atmosphere. They are particularly suited for use with deaerators, high pressure condensate collectors and condensing of other process vapor venting devices.

Specifications

Contractor shall supply and install the following: CANNON Vent Condenser, Model VC-7, rated to recover _____,_____ BTU's per hour by cooling _____ pounds per hour of steam at atmospheric pressure to liquid condensate with _____GPM of _____F coolant water.

The Vent Condenser shall be a completely packaged shell and finned tube, vapor to liquid, water cooled heat exchanger. It shall be designed to recover the latent heat of vaporization contained in a plume of steam by condensing that steam vapor to liquid which may then be safely diverted and recovered while minimizing equipment damage due to corrosion or fouling. The containment shell shall be Type 304 Stainless Steel and the condenser coil shall be Cupro-Nickel tubing with brazed-on Stainless Steel extended surface fins.

The Vent Condenser shell shall be fitted with inlet and outlet FPT couplings to receive steam to be condensed and to discharge non-condensable vapors. An additional FPT fitting shall be provided to adequately discharge the cooled steam condensate. The internal condensing coil shall be fitted with inlet and outlet FPT couplings for the cooling liquid. The Condenser shall contain internal baffling to assure proper flow of steam vapor over the extended finned surface of the condensing coil to minimize contaminated fouling or back pressure. External brackets attached to the containment shell shall be provided to allow for support or wall.

Options

- In-line safety relief valve. Protects piping between steam source pressure vessel and Vent Condenser shell from overpressure.
- A.S.M.E. stamped and National Board Registered coil.
- Coolant temperature flow control valve.

Other Products Available From Cannon

Feedwater Heaters

A unique economizer designed to recover your exhaust stack energy and save you thousands of dollars each year. Cannon Feedwater Heaters pay for themselves by reducing your fuel bills. We will provide you with an estimated payback period when you inquire, and it is normally less than one year.

Standard-Duty Economizers

The Cannon standard-duty 2-inch economizer is designed with an open-lattice that allows the flue gases access to the return bend area. This design is recommended for use with clean burning fuels. The open-end box design offers a lower initial cost.

Heavy-Duty Economizers

Our heavy-duty 2-inch economizer is recommended for use with gas, oil or coal. It is designed with bulkhead tube sheets and special drawn steel gas seals to isolate the cooler return bend area from the gas stream. The gas seals prevent the buildup of soot and fly ash from accumulating in the end box where soot blowing will not clean and dramatically reduces the risk of corrosion.

Waste Heat Boilers

Whether your waste heat is generated by gas turbine, incinerator, diesel engine, or another source, Cannon has the extensive experience required to create a saturated steam, super-heated steam or hot water system. A thorough analysis of conditions of the waste heat temperature, temperature consistency, combustion by-products, pressure and flow rates enables us to custom-design and build a highly efficient waste heat recovery system.

Direct-Fired Super Heaters

Direct-fired super heaters are an economical way to provide high-temperature steam without expensive boiler retrofit or the need for high-pressure boilers. They are designed for operation independent of your steam boiler with full steam capacity or partial loads for your particular process.

Finned Tube Products

Cannon manufactures custom finned tubes in similar and dissimilar metal combinations for gas to liquid services, and are available from prototype quantities to full-scale monthly production runs.

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