

Flash Steam Heat Recovery Unit (Steam and Condensate) Model FSHR-FC

The Model **FSHR-FC**, Flash Steam Heat Recovery Unit is a manufactured unit featuring dual Recovery Module, facilitating both flash steam and condensate heat extraction. The **FSHR-FC** is ideally suited for heating continuous flow of fluid, such as make-up water to boiler feedwater system. The atmospherically vented unit helps recovery and utilize valuable heat generally lost during boiler blowdown. A Shell and Tube Recovery Module with U-tube configuration is used for recovering energy from the flash steam, while the condensate utilizes an efficient Plate and Frame Recovery Module. The Model **FSHR-FC** is a complete unit including a Carbon Steel Flash Vessel. Non-continuous flow applications may require additional recirculation and/or relief valving. An optional make-up water control valve may be installed upstream of the unit in order for the make-up to be allowed to thermally expand to atmosphere to prevent system damage. Each Unit is custom engineered and designed to meet specific system requirements. All systems are fabricated and welded per ASME Section IX Code and Standards, and are Hydrostatically tested prior to shipment.

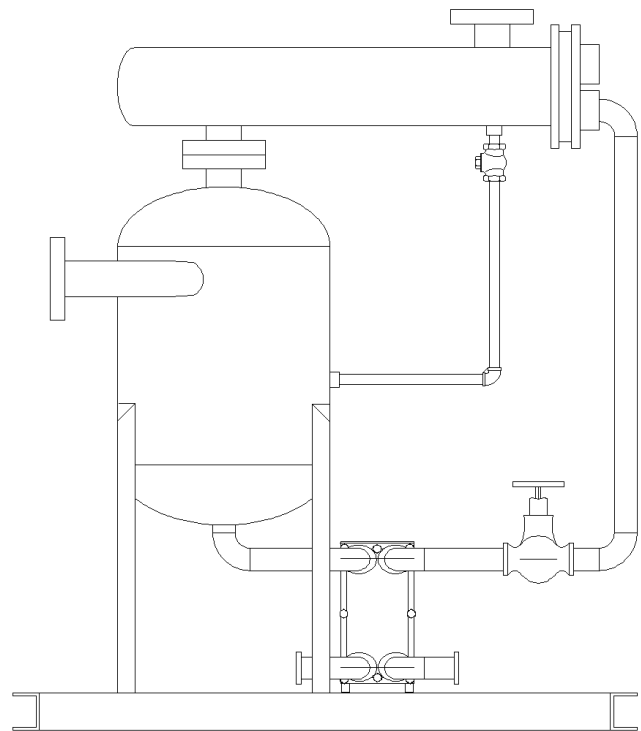
SIZING AND SELECTION

Units are custom engineered for individual systems, based upon the selection of the system parameters:

- I. System Flow Rate: Range of 5 lb/hr to 30,000 lb/hr
- II. Blow-down Upstream Pressure: Range of 5 psig to 250 psig
- III. Flash Vessel Pressure: Range of 0 psig to 15psig
- IV. Dimensions: Based on specific requirements

CONDITIONS OF OPERATION

Max. Allowable Pressure:	125 psig / 8.6 bar
Max. Allowable Temperature:	375 °F / 190.5 °C



Legend:

- A. Flash Vessel
- B. Shell and Tube Flash Recovery Module
- C. Plate and Frame Recovery Module
- D. Vent
- E. Blowdown Inlet
- F. Make-up Water Inlet
- G. Heated Make-up Water Supply
- H. Condensate Discharge
- I. Isolation Valves

STANDARD CONSTRUCTION

- Fabricated Structural Steel frame
- Shell and Tube, U-Tube Recovery Module
- Plate and Frame Recovery Module
- Carbon Steel Flash Vessel
- Bronze Gate Valves
- Hydrostatically Tested
- High Temperature Industrial Enamel Paint

**Model FSHR-FC
Heat Recovery Unit Order Form**

Form 01-FSHR-FC

Specify the following parameters:

I. Blowdown Inlet Flow Rate = _____ lb/hr

II. Blowdown Upstream Pressure = _____ psig

III. Flash Vessel Pressure = _____ psig

IV. Make-up Water Temperature Inlet = _____ °F

V. Max. Make-up Temperature Outlet = _____ °F

VI. Fouling Factor = _____

PACKAGE OPTIONS

Pneumatic-operated Steam Control Valve
Electronic Positioner
Pneumatic Positioner

Inlet Isolation Gate Valve

Stainless Steel Flash Vessel

Steam Pressure Gauges

Thermostatic Air Vent

Flash Recovery Module Bypass Valve Station

Condensate Recovery Module Bypass Valve
Station

Pressure Relief Valves
Steam-side
Water-side

Condensate Isolation and Check Valves

Condensate Y- Strainer

Float and Thermostatic Steam Trap

Single-pass Shell and Tube Recovery Module

Plate and Frame Recovery Module

Inlet / Outlet waterside Thermometers

Double-walled tube construction on Heat
Exchanger for Potable water use

Regardless of system size, temperature, pressure,
fluid medium, or space requirements, **EnviroSep** can
provide solutions to all specialized needs.

EnviroSep offers Professional Engineering
Service including complete facility, steam, and condensate
system layout and design.

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