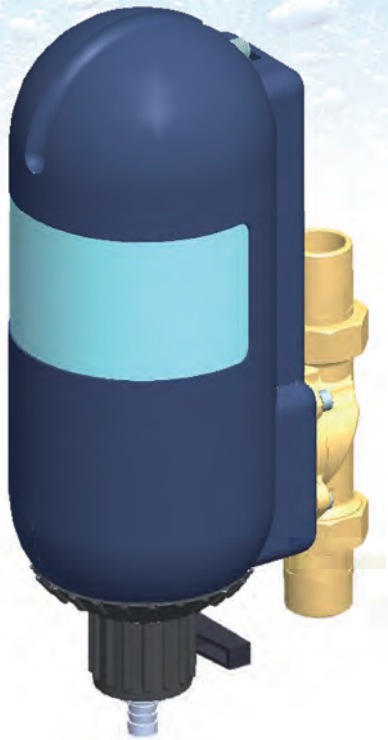
HEIFI-TOP

Backwash Filter complete with Integrated Venting System

APPLICATIONS & USES: Captures and removes suspended solids in Heating, Chilled & Steam Condensate Systems

Before HEIFI-TOP installation:
Corrosion particulate in water

After HEIFI-TOP installation:
Water as it should be



The Problem

Suspended solids, sludge and oxygen create detrimental conditions within heating and cooling loops which can contribute to premature failure in piping, fittings, valves, regulators, pumps, bearings, seals, instrumentation & controls, boilers, chillers, heat exchangers as well as many other components within a system.
Should these deposits coat the heat transfer surfaces, operating costs increase due to additional energy requirements (ie. natural gas or electricity) necessary to attain the proper temperature of the heat transfer fluid in the circuit.

The table below illustrates the effect of deposition on heat transfer surfaces. Note the loss of efficiency that occurs is dependent on the deposit thickness and type of deposit.

Typically chemical corrosion inhibitors are added to heat transfer fluids (ie. water, glycol, etc) to ensure corrosion rates remain within specified industry standards (ie. mild steel < 2 mpy). If, however, high suspended solids are the norm then the inhibitor actually adheres itself to the particulate as opposed to corrosion inhibitor film formation solely on the actual piping system itself. This in turn promotes further corrosion to proliferate due to lack of proper corrosion protection on the system pipe.

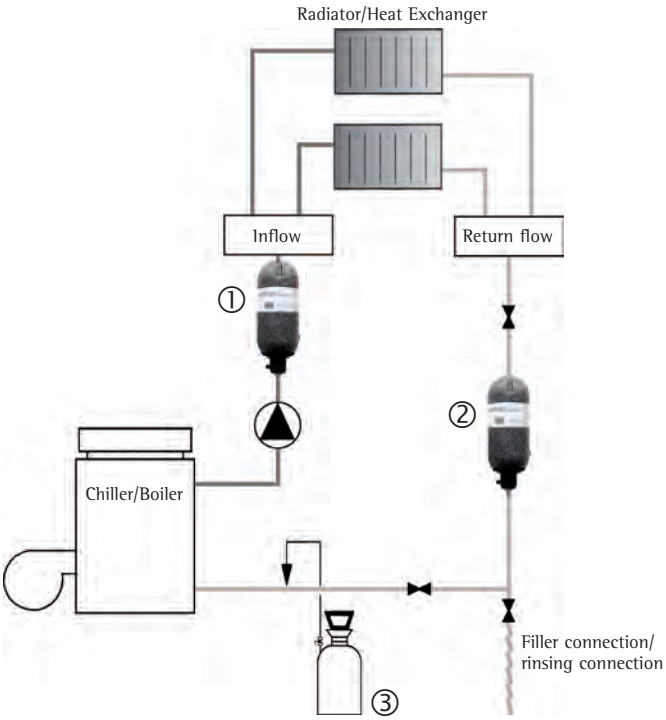
Effect of deposition on heat transfer surfaces

	1/64" (0.4 mm)	1/32" (0.8 mm)	3/64" (1.2 mm)	1/16" (1.6 mm)
High Calcium Content	1%	2%	2.9%	3.8%
High Iron Content	1.5%	3%	4.5%	5.9%
High Iron & Silica Content	3.4%	7%	10.6%	14%

Built it Green
Keep it Green®

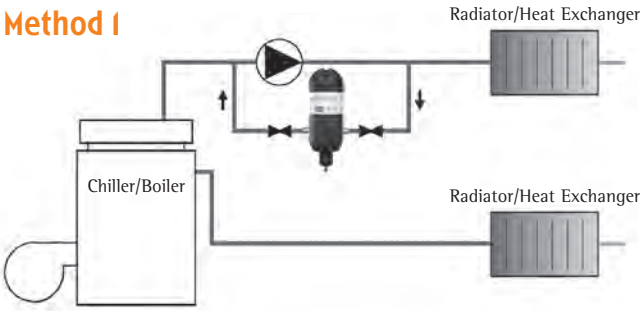
Water Treatment

Installation diagram - In-line application

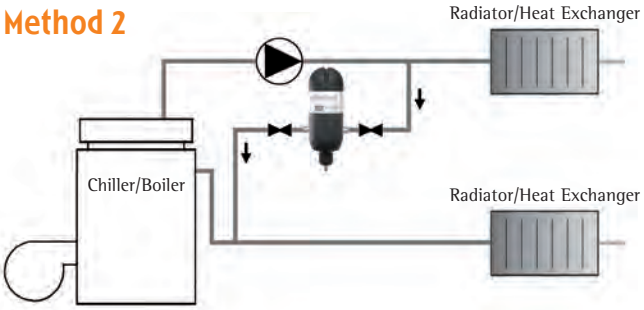


Installation diagram - Side Stream application

Method 1



Method 2



Two possible installations:

① optimum location for oxygen removal
② optimum location for particulate removal
③ Optional: Metering pump for corrosion inhibitor addition

The Solution

JUDO's HEIFI-TOP technology traps and retains suspended physical impurities as low as 15 microns while simultaneously removing oxygen via an integrated automatic air vent device through a unique, patented approach.
Periodically the unit is manually backwashed to totally eliminate impurities from the system. This procedure is easily accomplished by rotating the purge valve 180 degrees clockwise followed by opening the wastewater isolation valve to drain. Approximately 1 to 3 litres of water is all that is required to remove the trapped solids.
A reversal of the aforementioned procedure is performed to set the filter back on line. At no time does the system have to be shutdown to perform these functions.

Advantages/Benefits

- Environmentally friendly, sustainable design, simple operation, satisfies green shift initiatives
- Permanent stainless steel filter element – no consumable replacement cartridges
- Low suspended solids levels maintained on a continuous basis
- Deposit free heat transfer surfaces ensuring maximum energy efficiencies
- Trouble-free instrumentation operation and control strategy
- Increased system component longevity is maintained
- Reduces oxygen intake
- Ensures erosion and corrosion rates are minimized
- Installation can be inline or side stream dependent on the operation
- Vessel insulation ensures that maximum energy efficiency is maintained and Health and Safety issues are addressed

Technical data

Modell	JHF-T ¾" *		JHF-T 1"		JHF-T 1¼"		JHF-T 1½" **		JHF-T 2" **	
Flow rate	8.5 gpm	2 m³/h	13 gpm	3 m³/h	17.5 gpm	4 m³/h	26.5 gpm	6 m³/h	35 gpm	8 m³/h
Max. operating pressure	150 psi	1034 kPa	150 psi	1034 kPa	150 psi	1034 kPa	150 psi	1034 kPa	150 psi	1034 kPa
Max. temperature inlet water	194 °F	90 °C	194 °F	90 °C	194 °F	90 °C	194 °F	90 °C	194 °F	90 °C
Installed length	7"	180 mm	7½"	195 mm	9"	230 mm	10"	252 mm	11¼"	280 mm
Part no.	8060053		8060054		8060055		8060056		8060057	

* JHF-T 1" with ¾" QUICKSET-E ** 2 JHF-T 1" or 1¼" with parallel fitted rotary flange

Quality made in Germany

JUDO Water Treatment Inc.
240 Lesmill Road
Toronto, ON Canada M3B 2T5

Telephone: (416) 441-1556
Toll-Free (Canada/USA): (866) 451-5836

Fax: (416) 391-4273
Toll-Free Fax (Canada/USA): (877) 761-3335

e-mail: info@judo-online.com
judo-online.com

Quality Management
We are certified according ISO 9001:2000

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