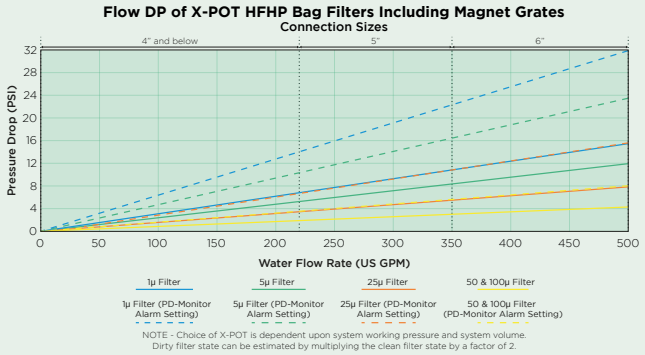
VEXO X-POT HFHP 435 PSI Specification Sheet

Product / Model	X-POT Series/HFHP 435 PSI	**Art. Code**	
Description	Side Stream Filtration and Dosing Unit	**Date**	

Customer	
Project	
Reference	

Design Criteria

Medium: Water/Glycol (Max 50%)
Max. System Volume (24/12hrs): 684,734/342,367 US gal
Max. System Btu/h (24/12hrs): 570.61/285.31 MMBtu/h
Max. System HP (24/12hrs): 17,033/8,517 HP
Max. Cooling TONS (24/12hrs): 45,649/22,824 TONS
Max. Pressure: 435 PSI
Min. Flow Rate: 1.31 GPM
Max. Flow Rate: 475.51 GPM
Max. Temp: 32°F - 203°F (0°C - 95°C)
Filtration Rate: Filtration down to 1 Micron (Bag Filter)
ΔP - Pressure Drop: See below graph



Mounting: Floor Standing
Dosing Capacity: 55.4 US Gal
Design Standard: ASME BPVC VIII Div.1

Testing and Quality Assurance

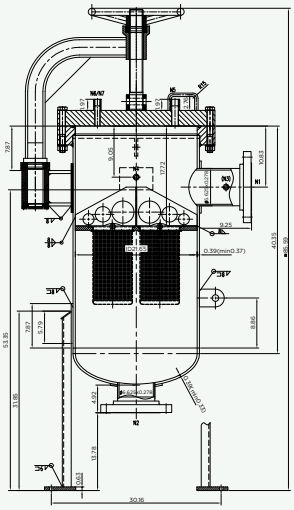
Test Pressure: 652.5 PSI
Test Medium: Air
Test Certificate: Yes
Drawing: Yes
Design Compliance: ASME BPVC U-Stamp
Notified Body Inspection: Yes
Warranty: 10 Years
Industry Peer Reviewed Energy Savings: Yes

Construction Materials

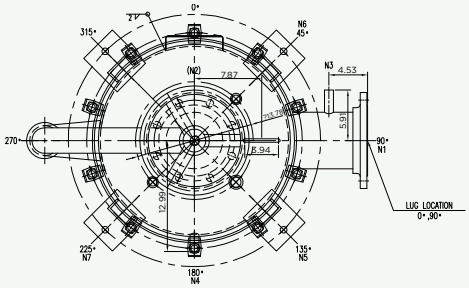
Vessel Body/Lid: SS 316
Baffle Plate: SS 316
Magnet Grate: SS 316
Magnets (52no.): Neodymium Rare Earth (Encased in SS 304)
Bag Filter: Polypropylene Needlefelt Type 19-2G
Isolation Valves: SS 316
AAV: SS 316
NRV: SS 316
Fittings: SS 316

Drawing

Front & Side:



Top:



Dimensions

Overall Height: 85 Inches
Overall Depth: 55 Inches
Overall Width: 55 Inches

Connections

Flange Connections: 6" ANSI Class 150 or 300 Flanged
AAV: 1/2" NPTF

Volume & Weight

Volume: 55.4 US Gal
Dry Weight: 1528 lbs
Operational Weight: 2170 lbs

Accessories

Pressure Differential Monitoring: PD-Monitor (Optional)

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General Description

A – The VEXO™ X-POT HFHP™ assists in the restoration of water quality and flow rates within Hydronic Heating and Cooling Systems to remain reliable and run at their intended design capabilities, by keeping the thermal fluid within the system filtered, clean and free from suspended particulates and micro-bubbles. This also allows Chemical Inhibitor's and Biocides to remain effective, thus reducing the accumulation of Corrosion, Scale and Bio-film deposits which would otherwise cause flow loss, degradation of plant and pipeline material, as well as reduced system reliability, increased running and reactive maintenance costs, water losses and reduced lifespan of system components. Recent research presented at the CIBSE Technical Symposium in the UK in April 2023 and at the ASHRAE Summer Conference in the US in June 2023 has shed light on the significant energy savings that can be achieved by improving water quality and removing corrosion residuals with X-POT. The results were compelling, showing that poor water quality not only leads to plant failure but also significantly increases pump energy consumption. The X-POT reduced pump energy consumption by an average of 19% in multiple system pressure scenarios.

This is achieved by a combination of functions, as the X-POT™ acts as an all-in-one:

- Dirt & Air Separator
- Magnetic Filter
- Side Stream Filter (down to 1 micron)
- Shot Feeder (For adding Water Treatment Chemicals)

B – This section specifies cleaning and treatment of circulating HVAC water systems, including the following:

I. Closed Loop Cooling Systems
II. Closed Loop Heating Systems

Product Description - Side Stream Water Filtration and Treatment Device

A – The Contractor shall furnish and install a full side stream filtration device that incorporates an industry peer reviewed 'all-in-one', shot feeder, magnetic filter and air and dirt separation device as shown and detailed on the contract documents. The product provided shall be the VEXO™ X-POT HFHP™ manufactured by VEXO International (www.vexoint.com/us) and exclusively supplied by Skidmore of Benton Harbor, MI or an approved substitution.

B - The product shall be all stainless steel construction including all valves and fittings. Maximum working pressure shall be 435 PSI with flow rates up to 475.51 GPM with a temperature range of 32°F to 200°F. Dosing capacity shall be a minimum of 55.4 Gallons and Bag Filtration range to be no less than 50µ to 1µ (cartridge filters are not acceptable). Magnetic filtration shall consist of no less than fifty-two (52) rare earth magnets - thirty-two (32) with a minimum of 26.5 lbs pull force each, and twenty (20) with a minimum of 35 lbs pull force each - designed for easy removal and cleaning. Air separation efficiency to be 100% removal to micro-bubble level and incorporate an automatic air vent. Total system volume capacity shall be no less than 684,733.96 US Gal.