

VEXO X-POT 6 Specification Sheet

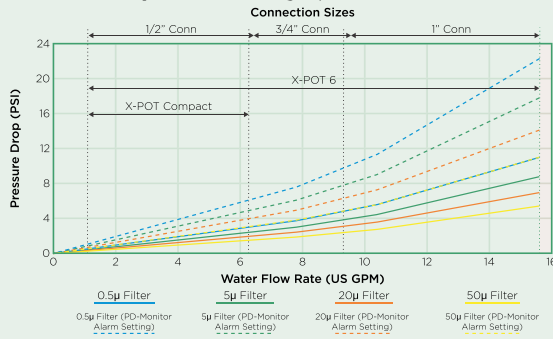
Product / Model	X-POT Series/6
Description	Side Stream Filtration and Dosing Unit

Art. Code	
Date	

Customer	
Project	
Reference	

Design Criteria

Medium: Water/Glycol (Max 50%)
Max. System Volume (24/12hrs): 22,824/11,412 US gal
Max. System Btu/h (24/12hrs): 19.02/9.51 MMBtu/h
Max. System HP (24/12hrs): 227/114 HP
Max. Cooling TONS (24/12hrs): 1,522/761 TONS
Max. Pressure: 150 PSI
Min. Flow Rate: 1.31 GPM
Max. Flow Rate: 15.85 GPM
Max. Temp: 32°F - 203°F (0°C - 95°C)
Filtration Rate: Filtration down to 0.5 Micron (Cartridge Filter)
ΔP - Pressure Drop: See below graph



NOTE - Choice of X-POT™ is dependent upon system working pressure and system volume. Dirty filter state can be estimated by multiplying the clean filter state by a factor of 2.

Mounting: Wall/Bracket Mounted
Dosing Capacity: 2.64 US Gal
Design Standard: ASME BPVC VIII Div.1

Testing and Quality Assurance

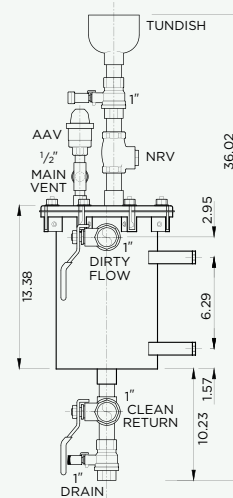
Test Pressure: 225 PSI
Test Medium: Air
Test Certificate: Yes
Drawing: Yes
Design Compliance: ASME U Stamp
Notified Body Inspection: Yes
Warranty: 10 Years
Industry Peer Reviewed Energy Savings: Yes

Construction Materials

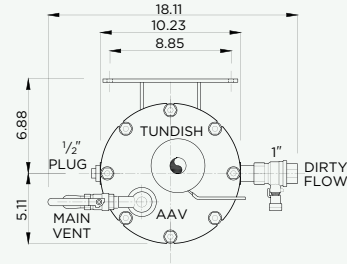
Vessel Body/Lid: SS 304
Baffle Plate: SS 316
Magnet Grate: SS 316
Magnets (6no.): Neodymium Rare Earth (Encased in SS 304)
Cartridge Filter: Polypropylene Spun Bonded Fibre
Isolation Valves: SS 304
AAV: DZR Brass (CW602N) (Female)
NRV: SS 304
Fittings: SS 304

Drawing

Front:



Top:



Dimensions

Overall Height: 36.02"
Overall Depth: 11.99"
Overall Width: 18.11"

Connections

Isolation Valve: 1" NPTF
AAV: 1/2" NPTF

Volume & Weight

Volume: 2.37 US Gal
Dry Weight: 46.30 Pounds
Operational Weight: 74.95 Pounds

Accessories

Pressure Differential Monitoring: PD-Monitor (Optional)
Insulation Jacket: Yes (Optional)

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General Description

A - The VEXO™ X-POT 6™ 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 0.5 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 6™ 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 150psi with flow rates up to 15.85 GPM with a temperature range of 32°F to 200°F. Dosing capacity shall be a minimum of 2.6 Gallons and Cartridge Filtration range to be no less than 50µ to 0.5µ (bag filters are not acceptable). Magnetic filtration shall consist of no less than six (6) rare earth magnets - four (4) with a minimum of 26.5 lbs pull force each, and two (2) with a minimum of 35 lbs pull force each - designed for easy removal and cleaning. Total system volume capacity shall be no less than 22,824 Gallons. The product must be provided with 1" isolation and drain valves and have an option for an insulation jacket with filter PD condition alarm installed to notify of timely filter changes and alert to water quality. Air separation function designed to promote the coalescence and removal of entrained gaseous air, including microbubbles, from circulating hydronic systems. Collected gaseous air shall be discharged through an automatic air vent.

The air separation principle is supported by independent laboratory testing undertaken on the VEXO X-POT product range, demonstrating microbubble coalescence, gaseous air removal and automatic venting.