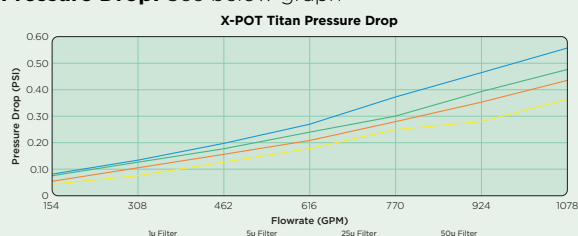


VEXO X-POT Titan 150 PSI Specification Sheet

Product / Model	X-POT Series/Titan	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): 1,711,834/855,917 US gal
Max. System Btu/h (24/12hrs): 1,426.53/713.26 MMBtu/h
Max. System HP (24/12hrs): 42,583/21,291 HP
Max. Cooling TONS (24/12hrs): 114,122/57,061 TONS
Max. Pressure: 150 PSI
Min. Flow Rate: 1.31 GPM
Max. Flow Rate: 1,188 GPM
Max. Temp: 32°F - 203°F (0°C - 95°C)
Air Separation: 7x C-POD™ coalescing pods, supplemented by bag filter media that also supports microbubble coalescence
Magnetic Flux Density (Gauss): 728,000
Filtration Rate: Filtration down to 1 Micron (Bag Filter)
ΔP - Pressure Drop: See below graph



Mounting: Floor Standing
Dosing Capacity: 132 US Gal
Design Standard: ASME BPVC VIII Div.1

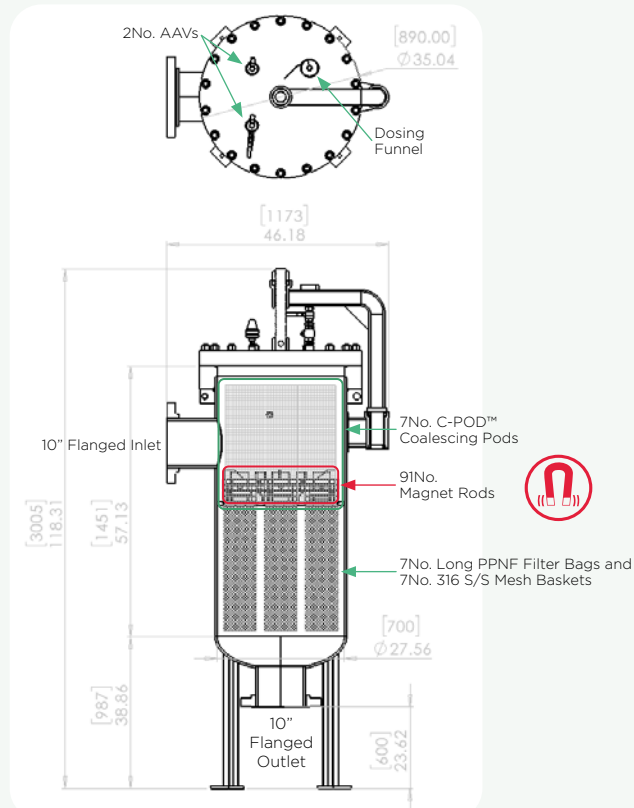
Testing and Quality Assurance

Test Pressure: 225 PSI
Test Medium: Water
Test Certificate: Yes
Drawing: Yes
Design Compliance: Non U Stamp - Designed to ASME BPVC VIII-1 2025
Notified Body Inspection: No
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 (91No.): Neodymium Rare Earth (Encased in SS 304)
Bag Filter: Polypropylene Needlefelt Type 19-2G
Isolation Valves: SS 316
AAV: SS 304
NRV: SS 316
Fittings: SS 316
Coalescing Pods (7no.): SS 316L pall rings (various sizes) and wire brush media
Surface Finish: Pickling and Passivation

Drawing



Dimensions

Overall Height: 118.31"
Overall Depth: 46.18"
Overall Width: 35.04"

Connections

Flange Connections: 10-Inch ASME B16.5 Class 150 Raised-Face Inlet & Outlet
AAV: 3/4" G Thread
Dosing Funnel: 1"

Volume & Weight

Volume: 158.5 US Gal
Dry Weight: 1,985 Pounds
Operational Weight: 3,307 Pounds
Lifting Limitation: Lift only when fully drained. Refer to approved lifting instructions.

Accessories

Pressure Differential Monitoring: PD-Monitor (Optional)

VEXO X-POT Titan Specification Sheet

General Description

A – The VEXO™ X-POT Titan™ helps protect, maintain, and restore water quality and flow rates in hydronic heating and cooling systems, supporting reliable operation at their intended design capabilities. It filters the system's thermal fluid to help keep it clean and is designed to reduce suspended particulates and entrained air, including microbubbles.

This also helps chemical inhibitors and biocides remain effective, reducing the accumulation of corrosion products, scale, and biofilm deposits. These deposits can otherwise restrict flow, degrade equipment and piping materials, reduce system reliability, increase operating and reactive maintenance costs, cause water losses, and shorten the lifespan of system components.

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 highlighted the significant energy savings achievable by improving water quality and removing corrosion residues with X-POT. The results showed that poor water quality not only contributes to equipment failure but also significantly increases pump energy consumption. X-POT reduced pump energy consumption by an average of 19% across 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 Titan™ 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 150 PSI with flow rates up to 1,188 GPM with a temperature range of 32°F to 203°F. Dosing capacity shall be a minimum of 132 US Gal 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 ninety-one (91) rare earth magnets - fifty-six (56) with a minimum of 26.5 lbs pull force each, and thirty-five (35) with a minimum of 35 lbs pull force each - designed for easy removal and cleaning. 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.

Enhanced Air Separation – C-POD™ Technology

The X-POT Titan incorporates seven purpose designed coalescing pods (C-POD™), all made from 316L stainless steel containing Pall rings of varying sizes and wire brush media. Positioned above the magnetic assemblies, baffle plate, bag filters, and bag housings, the C-POD™ provide contact surfaces designed to encourage entrained microbubbles to coalesce into larger bubbles for separation and discharge through the 2No. automatic air vents.

The bag filters also provide a contact matrix that supports bubble coalescence alongside their primary particulate filtration function. The arrangement draws on established coalescing media principles and VEXO's previous air and dirt separator development.