IFM 50 GPM

NEMA 4 VACUUM DEHYDRATION OIL PURIFICATION SYSTEM (VDOPS)





PRODUCT DESCRIPTION

This 50 GPM VDOPS unit is engineered for demanding industrial environments. It efficiently removes water (free, emulsified, and dissolved) and particulates from hydraulic and lubrication oils. Designed for high performance, it achieves water levels as low as 20 PPM and meets ISO 16/14/11 cleanliness standards in multi-pass, making it ideal for maintaining oil quality in critical machinery.



KEY FEATURES AND BENEFITS

PERMANENT DISPERSION MEDIA

• Eliminates the need for frequent coalescer filter changes, reducing maintenance costs.

HIGH-EFFICIENCY FILTRATION

• 5-Micron pleated microglass filter element, rated Beta(c)>1000, captures 99.9% of 5-micron particles in multi-pass.

VFD FOR OPTIMAL PERFORMANCE

• Variable Frequency Drive (VFD) enhances operation on high viscosity oils and during cold starts.

LOW MAINTENANCE VACUUM PUMP

• Dry-running "claw" style vacuum pump provides a deeper vacuum with minimal upkeep.

ROBUST CONTROL PANEL

 NEMA 4 enclosure with safety indicators and automatic shutdown for operational reliability.



GENERAL SPECIFICATIONS

- Max Flow Rate: 50 GPM (3000 GPH)
- Max Outlet Pressure: 100 PSIG
- Operating Vacuum: 18-28" Hg
- Max Viscosity: 3000 SSU (600cSt)
- Water Removal Efficiency: 100% Free & Emulsified: 90% Dissolved
- Gas Removal Efficiency: 100% Free; 90% Dissolved
- Inlet & Outlet Ports: 2" Camlock with isolation ball valves
- Dimensions: 48"L x 80"W x 90"H
- Weight: Approx. 3,600 lbs.

ELECTRICAL SPECIFICATIONS

- Voltage: 480V, 3-Phase, 60 Hz
- Full Load Amps: 98 FLA
- Control Panel: NEMA 4 with on/off switch, VFD, low flow indicator, and multiple high-level indicators for safety (auto shut-down included).



800.256.1250 ifmservices.com

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SYSTEM COMPONENTS

PRE-FILTER ASSEMBLY

20-Mesh inlet strainer for capturing large particles.

FILTER ELEMENT

5-Micron pleated microglass, Beta(c)>1000 for precise particulate removal.

VACUUM PUMP

> 116 CFM dry-running claw style for efficient vacuum generation.

INLET OIL HEATER

> 66 kW low watt density with dual 33 kW circuits and digital temperature control for effective oil heating.

CONDENSATE MANAGEMENT

Air-cooled condenser with an 11-gallon sump and manual drain.



OPTIONAL ACCESSORIES

- Inline Digital Particle Monitor: Real-time ISO particle count display
- Inline Digital Moisture Indicator: Monitors moisture content in % saturation.
- Automatic Water Drain:
 Automates water drainage,
 reducing manual maintenance.
- Heavy-Duty Transfer Hoses
 Two 20' petroleum transfer
 hoses (2" diameter) with
 Camlock connections.
- Base Construction:
 Carbon steel with spill containment lip, push-rail, casters, and forklift slots.
- Exterior Finish:
 Oil and corrosion-resistant
 enamel with a durable
 blue finish.
- Seals: Viton® for durability and chemical resistance.



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