

TURBO-VAC

Oil Purification System

The Turbo-VAC Oil Purification System uses innovative vacuum mass transfer dehydration technology and high-efficiency filtration to remove water, entrained gases, and particulates from industrial oils.

With its unique packed column design and low-maintenance operation, Turbo-VAC ensures optimal oil cleanliness, reduces operating costs, and extends the lifespan of both oil and machinery.



Key Features

- **Advanced Vacuum Mass Transfer Technology**
Removes all free water, up to 90% of dissolved water, and entrained gases with minimal heat and vacuum, ensuring oil integrity.
- **Unique Packed Column Design**
The packed column creates an ultra-thin, cascading oil film, greatly increasing surface area for efficient water and gas removal.
Operates with:
 - Low Heat: <140°F
 - Low Vacuum: < -22 inHgThis gentle process eliminates the risk of oil degradation common in other systems.
- **Low Cost of Ownership.**
 - Dry claw vacuum pump requires no cooling water or seal oil—only an annual oil change (less than a quart).
 - High-capacity filtration minimizes filter changes.
 - Energy-efficient heater engages only when oil temperature is below 120°F.
- **User-Friendly Automation**
 - Fully self-contained and automated.
 - PLC controls with large color touchscreen HMI.
 - Real-time water content and oil temperature monitoring with integrated water sensor.
 - Convenient analog gauge panel for oil pressure, temperature, vacuum level, and filter differential pressure.

Benefits

- **Ensures Clean Oil:** Removes water, gases, and particulates for optimal oil cleanliness.
- **Improves Equipment Reliability:** Reduces wear, friction, and overheating.
- **Extends Oil and Machinery Life:** Prevents oil degradation and costly maintenance.
- **Simple Operation:** Fully automated with minimal maintenance requirements.
- **Energy Efficient:** Low power consumption with a heater that activates only when needed.

Applications

- Power Generation
- Petrochemical Processing
- Pulp & Paper
- Mining
- Metalworking



Specifications

Flow rate:	5, 10, 20, 50 GPM
Viscosity Range:	3 - 1100 cSt
Seals:	Fluorocarbon or Buna-N
Electrical Enclosure:	NEMA 4
Voltage:	480, 380 or 575 VAC
Inlet Fluid Temp:	165° F max
Ambient Temp:	32° F to 105° F
Inlet Pressure Range:	14 inHg (v) to 10 PSI
Outlet Pressure Relief Setting:	80 PSI
Operating Vacuum Range:	15 - 22 inHg (v)
Heater Capacity:	4 - 30 kW (low Watt density)
Paint:	Epoxy powder coated
Fluid Filter:	3 micron. $\beta=1000$. High capacity
Exhaust Coalescer:	0.3 micron

Turbo-VAC Series

Model	Circulation Rate (GPM)	Reservoir Volume (USGAL)
Turbo-VAC5	6	Up to 1000
Turbo-VAC10	11	1000 - 2000
Turbo-VAC20	22	2000 - 5000
Turbo-VAC50	50	5000+

