



KLP Series Portable TURBO-TOC® Turbine Oil Conditioning Systems



Features

- Portability allows the system to be shared between multiple turbine oil reservoirs
- Contributes to dependable turbine operations and helps reduce turbine rotating component failures
- Differential Pressure Gauge designed to monitor restriction of flow caused by contaminants and indicates remaining coalescer and separator element life
- Sample port included to take bottle samples for oil quality analysis
- Automatic air valve release allows for removal of trapped air
- Sight glass provides visual indication of the accumulated water separated from turbine oil
- Automatic water drain removes separated water

Innovative Turbine Oil Conditioning

TURBO-TOC® turbine oil conditioning systems support long-term turbine operation and significantly reduce the probability of failures or unscheduled maintenance due to contaminated turbine oil.

A major factor in turbine oil reliability is the control and removal of undesired particulate and water. When contamination invades turbine oil, protection of the turbine bearing and journal surfaces are placed at risk and turbine performance is jeopardized.

The KLP TURBO-TOC turbine oil conditioning system's portability provides as needed oil conditioning for a selected oil reservoir during equipment uptime, and adds additional benefit during shutdown by quickly preparing the turbine oil for equipment start-up. After the system has removed the water from the turbine oil, it will accumulate in the coalescer vessel. When it has accumulated to a preset level, the automatic water drain will discharge the water from the system.

The KLP series is equipped with a prefilter vessel containing a pleated, multi-layered micro-fiberglass filter for ultra-fine particle removal and long element life. Particulate filtration is rated at Beta (5.1)=1000 per ISO 16889. An installation kit including one suction hose (10'), discharge hose (10'), and power cable (15') is provided with each KLP system.

The KLP Series uses the same filter media and technology as the proven KL Series TURBO-TOC Turbine Oil Conditioners and is capable of meeting ISO Cleanliness Code 15/13/11. The KLP Series may be installed on a single reservoir or moved between multiple turbine oil reservoirs.

KLP Series Portable TURBO -TOC Specifications and Details

Available Flow Rates	3 gpm or 5 gpm
Sizing	Up to 3,000 gallons (11,400 liters)
System Pressure	100 PSIG / 7 BAR (maximum)
Environmental Parameters	Minimum Ambient Temperature: 32 F (0 C) Maximum Ambient Temperature: 104 F (40 C)
Operating Voltage	3 gpm: 120V/1PH/60Hz 5 gpm: 460V/3PH/60 Hz or 380V/3PH/50Hz
Materials of Construction	Metals: Carbon Steel Elastomers: Buna-N Paint: Epoxy (Kaydon Blue)
Pressure Vessel	Carbon Steel
Inlet/Outlet Connections	Type: NPT Inlet: 3/4 inch Outlet: 1/2 inch
Pump/Motor Assembly	Pump Type: gear - positive displacement 3 gpm: 1/2 HP / 5 gpm: 3/4 HP
Fluid Compatibility	ISO 32, ISO 46, and ISO 68 mineral base turbine oil
Filter Stages	1 st Stage: 30 mesh pump protection strainer 2 nd Stage: particulate removal 3 rd Stage: water removal
Performance	Particulate: ISO Cleanliness Code 15/13/11 ¹ Water: removal to less than 100 ppm ²
Weight (approximate)	400 lbs
Dimensions (inches)	38 L x 26 W x 44 H

Oil Heater - One of the cornerstones of coalescing technology is to have the oil at the correct temperature for water removal. The addition of an optional oil heater assembly helps the coalescing process at start up by reducing the time to bring up the oil temperature when the oil is less than 100° F. The oil heater also adds supplemental heat to increase the bulk reservoir oil temperature. The oil heater includes a temperature controller and flow switch.

Available Models Note: Other Voltages available

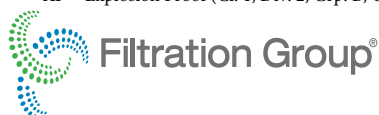
Part Number	Description
KLP-3-120-M	3 gpm / 120 VAC / 1 PH / 60 Hz
KLP-5-460-M	5 gpm / 460 VAC / 3 PH / 60 Hz
KLP-5-460-AWD-H	5 gpm / 460 VAC / 3 PH / 60 Hz
KLP-3-120-M-XP	3 gpm / 120 VAC / 1 PH / 60 Hz / Exp. Proof

Note: Exp. Proof Rating Classification: Class 1, Division 2, Group B, C and D

K = Kaydon
L = Lube Oil (turbine type or equivalent fluid, mineral base, viscosities ISO 32, 46, and 68)
P = Portable
3 or 5 = Flow Rate in gallons per minute (gpm)
120 or 460 = Voltage (other voltages available)
M = Manual Water Drain
AWD = Automatic Water Drain
H = Oil Heater
XP = Explosion Proof (Cl. 1, Div. 2, Grp. B, C, & D)

Consumables

Part Number	Description
C220270	Coalescer Element (Qty Req'd = 2)
C220271	Separator Element (Qty Req'd = 1)
A629022	Coalescer Vessel Lid Seal ³
KMP9600AKF8V	Prefilter
980-SEAL KIT	Prefilter Vessel Seal



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- As measured with in-line automatic particle monitor calibrated to ISO 11171 and influent no greater than ISO 22/19/17
- Total Water content (free, emulsified and dissolved) as measured by ASTM D6304-04 (Karl Fischer method)
- Required for element change

TURBO-TOC is a registered trademark of Filtration Group LLC
 All design specifications are subject to change without notice.
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