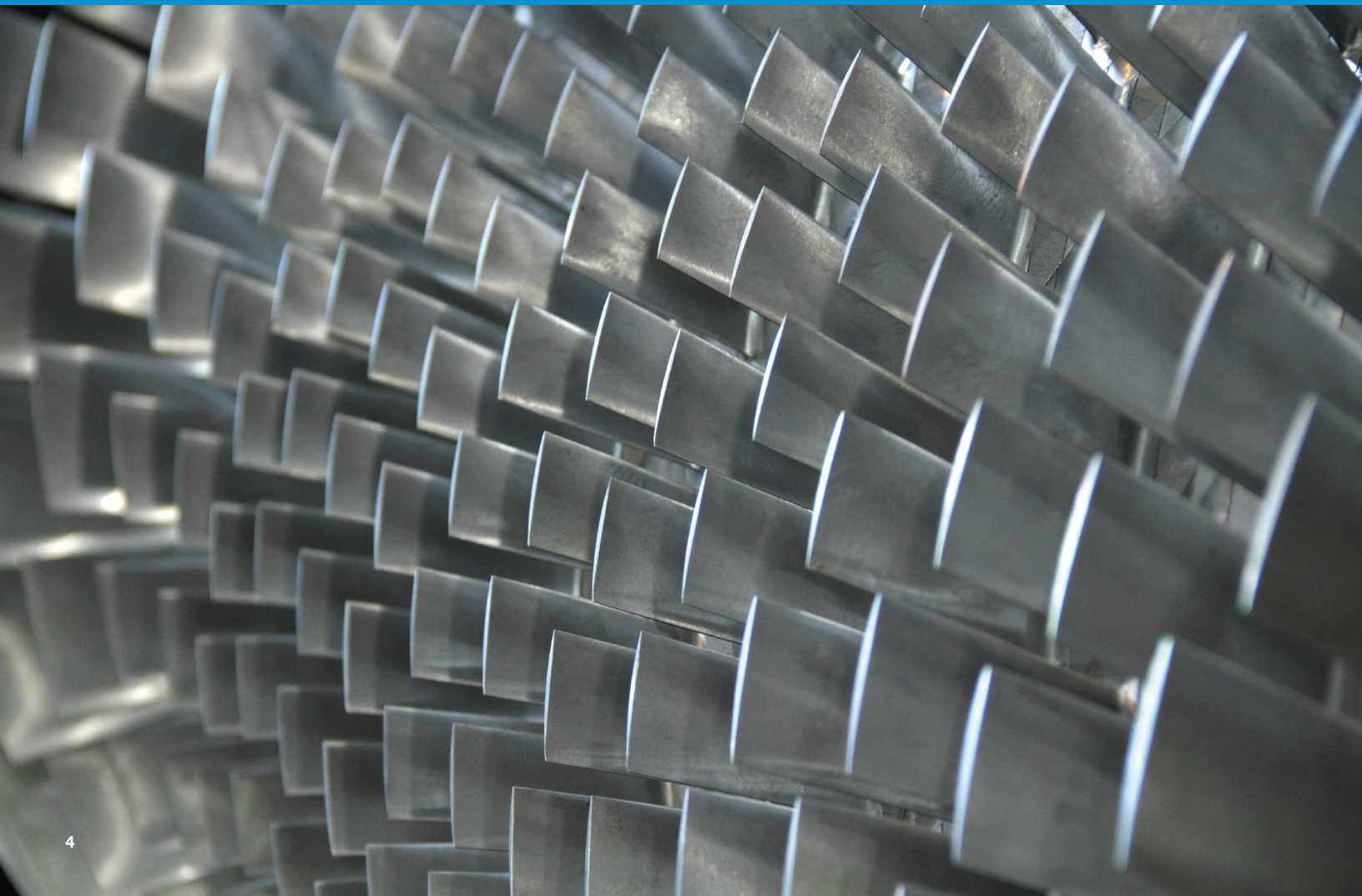


TURBINE OIL CONDITIONING SYSTEMS

TURBO-TOC® KL series turbine oil conditioning systems are used as off-line systems to condition turbine oil in a turbine oil reservoir. These systems can be utilized on reservoirs on steam turbines, combustion (gas) turbines, and hydroelectric turbines. The smaller and portable KLP turbine oil conditioning system uses the same technology as the larger KL series and is designed for oil conditioning for smaller oil reservoirs.



TURBO-TOC® KL Series



TURBO-TOC® KL Series can enhance the operation of, and financial returns from, your turbine oil-lubricated equipment.

The TURBO-TOC® turbine oil conditioning systems supports long-term turbine operation and significantly reduces the probability of oil related turbine failures or unscheduled maintenance due to contaminated turbine oil. TURBO-TOC provides continuous fluid conditioning service during equipment uptime, and adds additional benefit during shutdown by quickly preparing the turbine oil for equipment start-up. It is essential equipment for turbine oil dependability and reliability.

Kaydon TURBO-TOC KL Turbine Oil Conditioning Systems

A major factor in power plant 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. Kaydon Filtration’s TURBO-TOC KL series of turbine oil conditioning systems are equipped with a coalescer/separator unit that removes water in the turbine oil, preventing water related component failures and providing filtration and final oil polishing to eliminate the wear and scoring of bearings and journal surfaces.

Each TURBO-TOC KL oil conditioning system includes an automatic water drain and water meter to discharge the water when it accumulates to a preset level which activates a float switch and opens the water drain solenoid valve. They are also equipped with oil Inlet/outlet sample ports, an element differential pressure gauge for element life indication, and inlet/outlet isolation valves to isolate the system during filter changes. The heater package adds supplemental heating to oil in a reservoir during cold oil situations and helps the coalescing process during cold oil periods by raising the oil temperature just before the oil enters the filtration vessels providing easier particle and water removal.

Kaydon TURBO-TOC turbine oil conditioning systems are available in a wide array of additional options. Contact Kaydon Filtration technical support to discuss your specific requirement.

Applications

Turbine Lube Oil

Steam, combustion, and hydroelectric power plants

Features

Touch Screen

Pre filter

Kaydon Coalescing Technology

Benefits

Provides easy to read and operate graphical view of the system operation.

Removes damaging particulate that can destroy bearing surfaces.

Removes harmful water that can potentially damage expensive rotating components

TURBO-TOC® KL Series



KL10S2



KL30S2



KL60S2



KL100S3-N

Specifications and Details

System Flow (Maximum)	Model	gpm	lpm	
	KL10S2	10	38	
	KL30S2	30	114	
	KL60S2	60	228	
	KL100S3-N	100	379	
Reservoir Sizing	Model	Gallons	Liters	
	KL10S2	≤ 1,200	≤ 4,550	
	KL30S2	≤ 3,600	≤ 13,600	
	KL60S2	≤ 7,200	≤ 27,200	
	KL100S3-N	≤ 12,000	≤ 45,500	
Environmental Parameters	Minimum Temperature: 32° F (0° C) Maximum Temperature: 104° F (40° C)			
Operating Voltage (Contact Kaydon for other voltages and frequencies)	Voltage	Frequency	Phase	
	460 VAC	60 Hz	3-phase	
Pump/Motor Assembly	Model	Pump	Motor	
	KL10S2	Positive Displacement (gear)	1.5 HP / 1.1 KW	
	KL30S2	Positive Displacement (gear)	5 HP / 3.7 KW	
	KL60S2	Positive Displacement (gear)	7.5 HP / 5.6 KW	
	KL100S3-N	Positive Displacement (gear)	15 HP / 11.2 KW	
Materials of Construction	Metals: Carbon Steel, Bronze, Stainless Steel Elastomers: Buna-N Paint: Epoxy			
Pressure Vessel	Design and Construction in accordance with ASME Section VIII, Division 1			
Inlet/Outlet Connections	Model	Inlet	Outlet	
	KL10S2	1.5 inch	1.5 inch	
	KL30S2 / KL60S2	2 inch	1.5 inch	
	KL100S3-N	3 inch	2 inch	
	Type: ANSI B 16.5 Flanged			
System Pressure (Maximum)	100 psig @ 250° F / 10.34 BAR @ 121° C			
Dimensions	Model	Inches (L x W x H)	mm (L x W x H)	
	KL10S2	48 x 46 x 75	1,220 x 1,170 x 1,905	
	KL30S2	55 x 54 x 94	1,397 x 1,372 x 2,388	
	KL60S2	69 x 65 x 92	1,753 x 1,651 x 2,337	
	KL100S3-N	91 x 88 x 102	2,311 x 2,235 x 2,591	
Weight (approximate)	Model	Dry (lbs. / kg.)	Wet (lbs. / kg.)	Volume Capacity (gal. / liter)
	KL10S2	1,636 / 743	2,015 / 914	57 / 260
	KL30S2	2,500 / 1,134	3,254 / 1,476	113 / 427
	KL60S2	3,725 / 1,690	5,110 / 2,318	200 / 756
	KL100S3-N	6,280 / 2,850	8,830 / 4,000	330 / 1,250
Fluid Compatibility	ISO 32, ISO 46, and ISO 68 mineral base turbine oil			
Performance	Particulate: ISO Cleanliness Code 15/13/11 ¹ Water: Removal to less than 100 ppm ²			

1. As measured with in-line automatic particle monitor calibrated to ISO 11171 and influent no greater than ISO 22/19/17.

2. Total Water content (free, emulsified and dissolved) as measured by ASTM D6304-04 (Karl Fischer method).

All design specifications are subject to change without notice.