

FSJL

Aeroderivative Jet Lube Oil Conditioning Systems

FSJL fluid conditioning skids are a total solution for managing aeroderivative jet lube oils susceptible to high thermal oxidative stress and coke deposit formation. FSJL prevents and reduces coke deposits that lead to variable geometry failures. Extend useful fluid life by removing the catalysts for oxidation; O₂ contact, acid, oxidative coking precursors, dissolved metals, combustible gases, water, and varnish all while maintaining low ISO Codes. Specifically designed for MIL-L-23699 aeroderivative jet lube oils, the FSJL eliminates the contamination that leads to variable geometry failures.

Ideal for maintenance of aeroderivative jet lube oil and hydraulic systems.

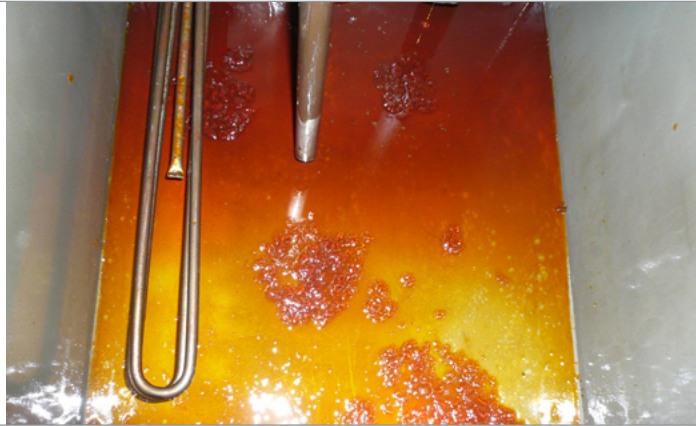


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Prevent coking deposits.

Mechanical wear, oil flow restrictions, and increased operating temperature are all caused by coking deposits, the major cause of premature failure in aeroderivative oils. ICB (Ion Charge Bonding) technology removes the oxidation by-products before they can cause additive depletion and coking deposits that form on the turbine rotor, bearings and other wetted surfaces.



Remove acids & dissolved metals.

Aeroderivative turbines often operate at elevated Acid Number (AN) values which attack metal surfaces, adding dissolved metals into the lubricant. ICB technology removes acids and metals, keeping rates of breakdown at a minimum while eliminating the feedstock that leads to coke formation.



High efficiency filtration.

The FSJL high efficiency final filter removes particles and insoluble by-products, delivering unimaginably low ISO Codes to extend the life of your mechanical components and bearings. To top it off, every HP107 filter element comes with an integral bypass valve to give you the safety and security you want with the filtration power you need.



Actively manage oxidation.

Normal lubricant reservoirs are vented to atmosphere, the key ingress pathway for water and oxygen which are two major causes of jet lube breakdown. The integrated TMR-N₂ headspace dehydrator on every FSJL actively blankets the reservoir with dry nitrogen to remove water, oxygen and combustible gases and greatly reduce the rate of oxidation and extend your fluid's useful life.

Full-time (water) extraction.

For applications that require full-time operation of reservoir headspace extraction fans, special option V1 integrates the V1 Compact Vacuum Dehydrator in place of the TMR-N₂ to provide a powerhouse water removal option that complements ICB and high efficiency on-board particulate filtration.



FSJL Specifications

Dimensions ¹	Height 58" (147 cm)	Length² 47.5" (121 cm)	Width² 31.5" (80 cm)	Weight 571 lbs (259 kg)
Connections	Inlet 1" FNPT with locking ball valve		Outlet 1" FNPT with locking ball valve	
Max Reservoir Size	FSJL05 150 gal (560 liters)	FSJL1 300 gal (1,125 liters)	FSJL2 800 gal (3,000 liters)	FSJL4 1,600 gal (6,000 liters)
Element Configuration	Particulate filter HP107L18-VTM710V		ICB FSJL05: ICB600504-J FSJL1: ICB 600504-J x 2 FSJL2: ICB600524-J FSJL4: ICB600524-J x 2	
Seals	Fluorocarbon + silicone			
Operating Temperature	Fluid Temperature 86°F to 176°F (30°C to 80°C)		Ambient Temperature -4°F to 104°F (-20C to 40C)	
Materials of Construction	Housings Carbon steel with industrial coating		Tray Carbon steel with industrial coating	
Electric Motor	TEFC, 56-145 frame 0.5 hp, 1450-1750 RPM			
Motor Starter	MSP (motor starter/protector) in an IP65, aluminum enclosure with short circuit and overload protection.			
Pump	Cast iron, positive displacement gear pump with internal relief. Maximum pressure on pump inlet 15 psi (1 bar). Consult factory for higher pressures.			
Pump Bypass	Full bypass at 150 psi (10 bar)			
Pneumatic Option Air Consumption	~40 cfm @ 80 psi ²			
TMR-N ₂ Option Air Consumption	FSJL05 < 1.2 SCFM	FSJL1 < 1.2 SCFM	FSJL2 < 2.0 SCFM	FSJL4 < 3.6 SCFM
Media Description	VTM β _{0.9} _(c) = 1000 particulate, insoluble oxidation by-product and water removal media.		ICB Ion charge bonding resin media for molecular removal of acids, gels and deposits, oxidation by-products and dissolved metal ions from polyol ester and other synthetic fluids.	
Fluid Compatibility	Type II, MIL-L-23699, polyol ester base stock, synthetic turbo oils and polyol esters.			
Hazardous Environment Options	Select pneumatic powered unit (Power Option 00) or explosion proof NEC Article 501, Class 1, Division 1, Group C+D. Call for IEC, Atex or other requirements.			

¹Dimensions are approximations taken from base model and will vary according to options chosen.
²Air consumption values are estimated maximums and will vary with regulator setting.



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