EPT™
CLEAN OIL

LUBRICANT CHEMISTRY MANAGEMENT

SVR® FRF PRODUCT BULLETIN

Protect your critical electro-hydraulic control (EHC) system with a bulletproof vest.

SVR® FRF IS AN ENGINEERED SKID-MOUNTED DIALYSIS-STYLE FRF CONDITIONING SYSTEM, DESIGNED TO PROTECT AND MANAGE PHOSPHATE ESTER FLUID AND ASSET RELIABILITY.

Phosphate ester fluids are the preferred hydraulic fluid for EHC systems due to their excellent fire-resistant properties. Suffering from unnecessarily high acid production levels, these fluids are challenging to maintain, demanding additional fluid maintenance and chemistry management. Standard acid filters aren't enough, often contributing to fluid breakdown and equipment failure as they don't address fluid chemistry.

SVR FRF, backed by patented ICB® FRF ion-exchange technology and best-in-class mechanical filtration, manages and maintains phosphate ester fluids fully. Based on 30 years of dedicated experience, the SVR FRF design meets the requirements for nuclear applications addressing fluid chemistry to mitigate high acid levels, gel formation, and rampant varnisg, returning fluid quality to operating specifications without flushing or fluid change.

Combined with our TMR® N2 water removal system, the primary breakdown pathway of phosphate ester fluids can be fully managed. This combined approach removes up to 10x more contamination, controlling the rate of fluid breakdown and providing best-in-class protection against EHC system failures and lost revenue.

SVR FRF FEATURES AND BENEFITS

- Utilizes patented ICB FRF ion-exchange technology to remove acids, dissolved metals, varnish and varnish precursors
- Protects servo valves by eliminating the contamination that would otherwise cause valve sticking or slow valve response time
- Offers the highest acid removal capacity available on the market, maintaining Acid Number to <0.09
- Significantly improves fluid resistivity
- Significantly reduces ISO particle-counts
- Reduces water by 150 ppm per day and maintains water <300 ppm, as well as lowers oxygen levels, further decreasing fluid breakdown and harmful dissolved gases including O_2, CO, H and C_2C_4 with the recommended TMR N_2 system add-on
- Significantly extends fluid operating life
- Eliminates the need for flushing
- Manufactured to ISO 9001 standards
- Low maintenance: Turn it on and let it run; that's it!
- **No downtime - SVR FRF can be installed without an outtage**

SVR FRF INCLUDES

- Initial set of ICB FRF and mechanical post-filters
- EPT Clean Oil Fluid Technical Center oil analysis and reports until results are documented
- Online training, commissioning resources and warrantry registration

1

The SVR uses patented ICB ion-exchange technology to provide a chemistry solution for a chemistry problem™: oil breakdown. SVR has been tested and proven worldwide on thousands of critical assets.

2

Extends lubricant life 2-3x by removing and preventing the accumulation of chemical breakdown materials. In doing so, SVR mitigates the risk of costly failures and avoidable production losses.

3

Designed to facilitate rapid deployment without downtime, maintaining consistent and ideal fluid quality, and performance full-time.

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	SVR FRF SYSTEM SPECIFICATIONS			
	SVR 150	**SVR 300**	**SVR 600**	**SVR 1200**
Dimension LxWxH	122 x 66 x 104 cm 48" x 26" x 41"	122 x 66 x 137 cm 48" x 26" x 54"	122 x 66 x 155 cm 48" x 26" x 61"	122 x 66 x 160 cm 48" x 26" x 63"
Weight	165 kg / 363 lb	181 kg / 400 lb	201 kg / 550 lb	273 kg / 600 lb
Connections Inlet/ Outlet FNPT:	1.0" / 1.0"	1.0" / 1.0"	1.5" x 1.0"	1.5" / 1.0"
Reservoir Volume	960 L / 253 gal	1,912 L / 505 gal	5,680 L / 1,500 gal	9,085 L / 2,400 gal
Operating Temperature	86°F to 176°F / 30°C to 80°C			
ICB Flow Rate *	2.0 lpm / 0.5 gpm	4.0 lpm / 1.0 gpm	8.5 lpm / 2.5 gpm	19.0 lpm / 5.0 gpm
Reservoir Exchange Rate/24 hr	5.7x	5.7x	5.7x	5.7x
Electrical Options	▪ General Purpose with 50 Hz and 60 Hz electrical voltage options ▪ CSA Class 1 Div 1 Group C&D with 50 Hz and 60Hz electrical voltage options ▪ CSA Class 1 Div 2 Group A, B, C & D with 50 Hz and 60 Hz electrical voltage options IECeX and ATEX-approved configurations are available. Please get in touch with us for more information.			
Current	13.2 Amps (at 120 VAC / 1Ph / 60Hz)			

* For normal lubricant maintenance, the desirable flow rate is to exchange the fluid reservoir volume 1 – 2x per day. For recovery projects, higher exchange rates are desired.

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