



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.

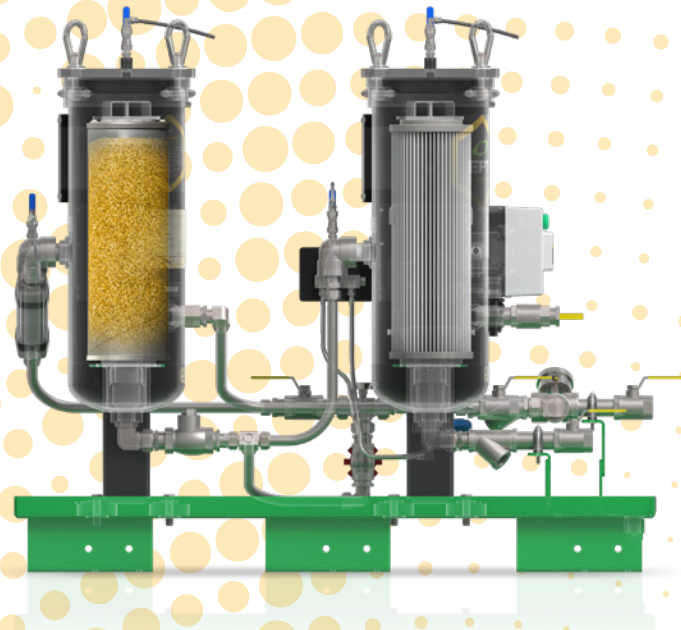
SVR® FRF, backed by patented ICB® FRF ion-exchange technology and best-in-class mechanical filtration, manages and maintains phosphate ester fluids fully. Based on 30 years of dedicated experience, the SVR FRF design meets the requirements for nuclear applications addressing fluid chemistry to mitigate high acid levels, gel formation, and rampant varnish, 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.



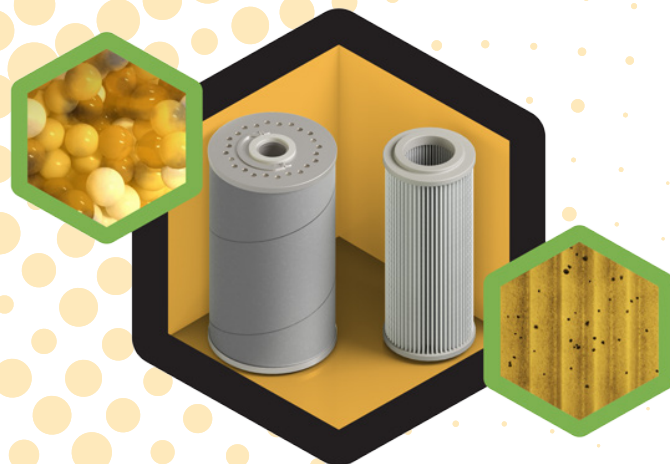
SVR FRF FEATURES AND BENEFITS

- 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 O₂, CO, H and C₂C₄ with the recommended TMR N₂ 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 outage**



SVR FRF INCLUDES

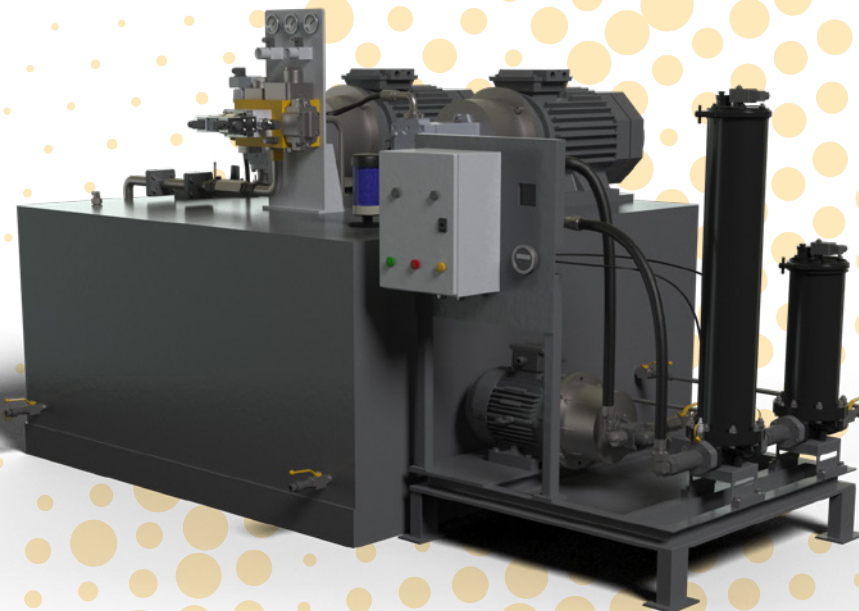
- Initial set of ICB FRF and mechanical post-filters
- EPT Clean Oil Fluid Technical Center oil analysis and reports until results are documented
- Online training, commissioning resources and warranty registration



SVR FRF SYSTEM SPECIFICATIONS

	SVR 150	SVR 300	SVR 600	SVR 1200	SVR 2400
Dimension LxWxH	120 x 79 x 102 cm 47" x 31" x 40"	120 x 79 x 148 cm 47" x 31" x 58"	122 x 66 x 102 cm 48" x 26" x 40"	122 x 66 x 148 cm 48" x 26" x 58"	178 x 76 x 148 cm 70" x 30" x 58"
Weight	159 kg / 350 lb	181 kg / 400 lb	201 kg / 550 lb	273 kg / 600 lb	454 kg / 1000 lb
Crated Dimension LxWxH			145 x 92 x 125 cm 57" x 36" x 49"	145 x 92 x 176 cm 57" x 36" x 69"	
Crated Weight			400 kg / 882 lb	443 kg / 977 lb	
Connections Inlet/Outlet FNPT:	1.0" / 1.0"	1.0" / 1.0"	1.5" x 1.0"	1.5" / 1.0"	2.0" x 1.5"
Reservoir Volume *	912 L / 240 gal	1,824 L / 480 gal	4,560 L / 1,200 gal	9,120 L / 2,400 gal	18,240 L / 4,800 gal
Operating Temperature	86°F to 176°F (30°C to 80°C)				
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	38.0 lpm / 10.0 gpm
Reservoir Exchange Rate/24 hr	5.7x	5.7x	5.7x	5.7x	5.7x
Electrical Options	115VAC / 1Ph / 60Hz (General Purpose) is standard. Other electrical options are available. Explosion Proof (Class I, Div I and Div II) options are available				
Current	13.2 Amps (at 115VAC / 1Ph / 60Hz)				

* For phosphate ester applications, the desirable filtration flow rate is to exchange the fluid reservoir volume >4-5x / day.
For recovery projects, higher exchange rates are desired.



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