EHC System Solution | Water Removal Solution | AW Oil Solution | Gas Turbine Solution | Steam Turbine Solution

EPT CLEAN OIL

ECR™ Product Bulletin

Highly effective, sub-micron particulate contamination removal for EHC Systems

ECR IS THE MISSING LINK IN FLUID MAINTENANCE, MANAGING THE INVISIBLE IN EHC SYSTEMS.

ECR™ is an electrostatic system designed to remediate lubricants and fluids, removing fine particulate contamination (<1µm) that passes through standard filtration systems.

With up to 90% of the total solid contamination <1µm, these fine particulate contaminants accumulate, impacting fluid life and component wear.

In environments where lubricants and fluids lack the required electrical properties to remove fine particulates, the ECR can be used in-line with the TMR™ N_2.

cleanoil.com | 1-800-256-4003 | 1-403-246-3044 | #17 3900 -106th Ave. SE Calgary, AB T2C 5B6 Canada

Rethink. Remove. Restore.

EHC FLUID CONDITIONING

EHC fluids generally darken over time as they accumulate fine particles that are less than 1 micron in size. This contamination is not measured in ISO particle code analyses nor is it removed via mechanical particulate filters.

This fine particulate contamination accounts for up to 90% of system contamination suggesting that as little as 10% of the EHC particulate contamination is being removed with existing filtration.

Patch testing is used to measure the levels of fine particulate contamination. Ideally, the patch should be white, while a dark patch indicates high levels of contamination. This type of contamination is harmful in EHC applications as it causes increased air entrainment, which accelerates fluid breakdown, and leads to a more serious form of breakdown called micro dieseling.

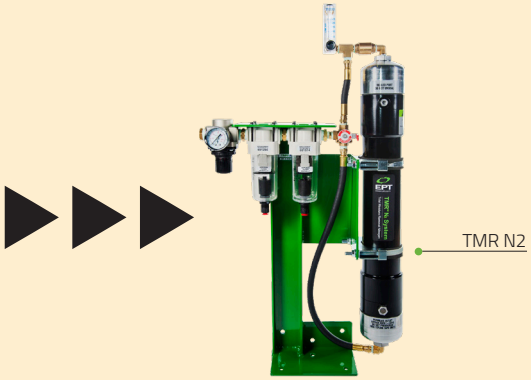
ECR fluid conditioning systems are an essential tool for EHC fluid maintenance. When used as directed and as part of proper fluid maintenance program, ECR systems remove up to 90% of particulate contamination <5 microns, decrease air entrainment, improve fluid color and increase resistivity.

ECR FEATURES AND BENEFITS

- Protects and manages the quality of lubricants and control fluids by removing sub-micron particulates standard filters cannot
- Designed for use with phosphate ester based EHC systems
- Reduces patch weight by up to 98% or < 4mg / 50ml fluid
- Removes carbon produced from micro dieseling and restores fluid color

WATER REMOVAL WITH TMR N_2

- With the recommended TMR N_2 option, water can be reduced by 150 ppm per day and maintain water levels <300 ppm. TMR N_2 also reduces oxygen levels and harmful dissolved gases, including CO, H_2 and C_2H_4.
- TMR N_2 system can be mounted on the SVR system or externally mounted



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ECR SYSTEM SPECIFICATIONS

	ECR 4000	ECR 8000
Dimension LxWxH	109 x 51 x 145 cm 43" x 20" x 57"	142 x 51 x 145 cm 56" x 20" x 57"
Weight	156 kg / 345 lb	247 kg / 545 lb
Bulkhead fittings: Inlet/Outlet/ Drain FNPT	1.0" / 1.0" / -	1.0" / 1.0" / 1.0"
Reservoir Volume	1600 L / 420 gal	3200 L / 845 gal
Operating Temperature	82°F to 122°F | (28°C to 50°C)	
Flow Rate	17 lpm / 4.5 gpm	34.0 lpm / 9.0 gpm
Reservoir Exchange Rate/24 hr	1.8x	1.8x
Electrical Options	115VAC/1Ph/60Hz is standard. Other power configurations available on request. Supplied with standard 115 VAC cord. See electrical schematic.	
Current	15 Amps	
Maximum Fluid Water Content	<500 ppm	
Electrostatic VAC	12 kV - 3 kV	
Seals	Viton	
Tubing	Stainless steel tubing with common manifold, chemical resistant hose with Swagelok fittings	
Paint	Chemically resistant paint for EHC fluids	

ECR INCLUDES:

- Fluid Technical Center support until results are documented

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