



# ECR® 10000 PRODUCT BULLETIN

Best-in-class integrated EHC fluid chemistry management solution that conditions EHC fluids to the requirements outlined in ASTM D8323-24.

**4 in 1 complete EHC fluid chemistry management solution**

**Certified stainless steel pressure vessels**

ECR® 10000 is a skid-mounted kidney loop filtration system designed for phosphate ester fluid, primarily electro-hydraulic control (EHC) applications, equipped with four proprietary filtration technologies to achieve fluid standards as defined in ASTM D8323-24.

#### The four filtration technologies include:

- ECR Electrostatics
- Patented ICB® Ion-exchange
- High-efficiency particulate removal
- TMR® N2 water removal

#### EXTEND YOUR EHC FLUID LIFE

ECR 10000 decreases air entrainment, improves fluid colour, and increases resistivity, which is integral in managing phosphate ester fluid quality. In conjunction with TMR N2 for water removal, comprehensive fluid chemistry management is achieved, which eliminates the need for chemical flushes when maintained over time.



# ECR 10000 QUICK REFERENCE GUIDE

## PHASE 3

**DISSOLVED CONTAMINATION REMOVAL**  
Patented ICB ion-exchange filtration targeting dissolved contamination removal.

## PHASE 2

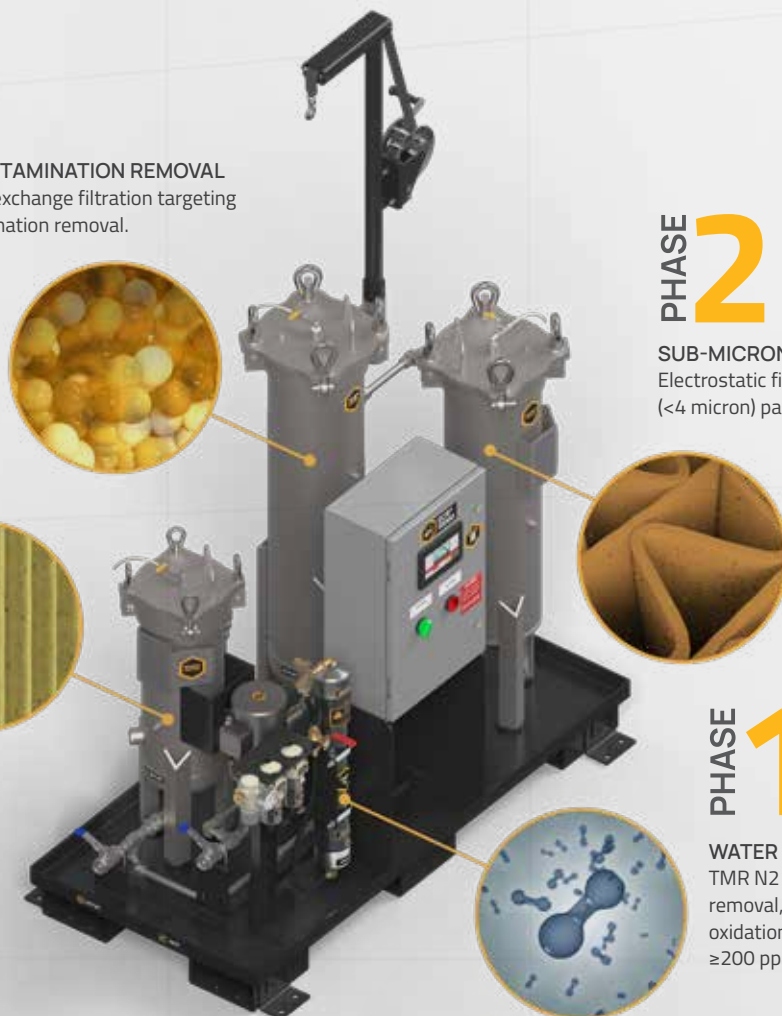
**SUB-MICRON PARTICULATE REMOVAL**  
Electrostatic filtration targeting sub-micron (<4 micron) particulate removal.

## PHASE 1

**WATER CONTENT MANAGEMENT**  
TMR N2 high-purity nitrogen water removal, eliminating factors that cause oxidation, maintaining water content  $\geq 200$  ppm and  $\leq 500$  ppm.

## PHASE 4

**FINAL SOLID CONTAMINATION REMOVAL**  
High-efficiency particulate filtration targeting the removal of contaminants that have come out of solution during phase two and three.



## ECR 10000 INCLUDES

- EPT Clean Oil Fluid Technical Center oil analysis and reporting until results are documented
- Dedicated online training, commissioning resources and warranty registration
- Engineer approved system manufactured to ISO 9001 standards, designed to facilitate rapid approval and deployment
- Very low maintenance and time requirements – turn it on and let it run
- Certified stainless steel pressure vessels
- Skid mounted low footprint kidney loop system that does not demand an outage or downtime for installation





## EHC FLUID CLEAN-UP AND MAINTENANCE MODE CONSUMABLE REQUIREMENTS

	CLEAN- UP MODE CONSUMABLES	CLEAN-UP MODE	MAINTENANCE MODE CONSUMABLES	MAINTENANCE MODE
ICB® FRF ION-EXCHANGE FILTER	8	Changed every two (2) weeks, for the first eight (8) weeks or until fluid is confirmed to meet ASTM D8323-24 targets.	2	Once fluid targets are achieved, filter change timelines extend to every four (4) months.
ECR® COLLECTOR	4	Changed every two (2) weeks, for the first eight (8) weeks or until fluid is confirmed to meet ASTM D8323-24 targets.	1	Once fluid targets are achieved, Collector change timelines extend to every four (4) months.
HIGH-EFFICIENCY PARTICULATE FILTERS	4	Changed every two (2) weeks, for the first eight (8) weeks or until fluid is confirmed to meet ASTM D8323-24 targets.	1	Once fluid targets are achieved, filter change timelines extend to every four (4) months.
PNEUMATIC PARTICULATE FILTERS	1	Changed every six (6) months.	1	Changed every six (6) months.
PNEUMATIC COALESCER FILTERS	1	Changed every six (6) months.	1	Changed every six (6) months.
ELECTROSTATIC VESSEL O-RING	1	Suggested spare.	1	Suggested spare.
ICB VESSEL O-RING	1	Suggested spare.	1	Suggested spare.
MECHANICAL VESSEL O-RING	1	Suggested spare.	1	Suggested spare.



## ECR 10000 SPECIFICATIONS



MODEL	ECR10000
HEIGHT	60" (152 cm)
HEIGHT WITH CRANE	94" (239 cm)
WIDTH	64" (163cm)
DEPTH	30" (62cm)
WEIGHT	680 lbs (308 kg)
CONNECTIONS	1" Female NPT
MAX FLOW RATE	3 GPM (11.4 LPM)
ELEMENT QUANTITY	1 ECR Collector Element 2 ICB® Ion-exchange Filters 1 High-efficiency Particulate Filter
SEALS	Fluorocarbon
CONTROL PANEL	Weather resistant NEMA 4 enclosure
HIGH VOLTAGE CAPACITY	12,000 V (DC)
ELECTRIC MOTOR	1/2 HP, 56C Frame 1450-1750 RPM, TEFC
MOTOR STARTER	Impact resistant plastic enclosure NEMA 12 / IP65 Rated
PUMP	Cast Iron, PD Spur gear, Internal Relief, Lip Seal, Maximum inlet pressure 15 psi (1 bar)
MAX SUCTION LINE PRESSURE LOSS	6 psi, 12.2 inches Hg (Vacuum)
MOISTURE REMOVAL – TMR N2	≥97% high purity nitrogen, eliminating ingress of atmospheric water and lubricant contact with oxygen
TARGET WATER LEVEL	200 - 500 ppm for maximum efficiency
FLUID COMPATIBILITY	Phosphate ester-based fire-resistant fluids (EHC fluids)
ELECTRICAL OPTIONS (STANDARD OFFERING)	<b>60 Hz, 1750 RPM</b> 120 V ac, 1P 208-230 V ac, 1P 460-480 V ac, 3P <b>50 Hz, 1450 RPM</b> 110 V ac, 1P 220 V ac, 1P
ELECTRICAL OPTIONS (NON-STANDARD)	Additional voltages can be applied but will require additional assembly and costs. Please connect with your local Sales Representative for more information.



[cleanoil.com](http://cleanoil.com) | 1-403-246-3044 | #17 3900 -106th Ave. SE Calgary, AB T2C 5B6 | Canada

ECR, ICB and TMR are registered trademarks of 1441413 Alberta Inc dba EPT Clean Oil.  
1441413 Alberta Inc dba EPT Clean Oil 2025 • PB\_3035008\_V02