



# Packaged Dewatering Systems

**KEM-TRON**  
Oil & Gas

Specialists in creating value through solution-oriented packaging, integration and system customization.



## Decanter Centrifuges

At the heart of every good dewatering system is a decanter centrifuge. KEM-TRON's centrifuges are available with mechanical variable control or full VFD with optional back-drives.



## Integrated Solutions

From shakers to mud cleaners, KEM-TRON has the expertise and technology to provide complete solids management and dewatering solutions that fully integrate with your existing rig assets.



## Industry Leader in Dewatering

For over 20 years, KEM-TRON has been designing solids management and dewatering systems for the most demanding environments.



KEM-TRON provides a host of customized dewatering units designed to provide optimum performance when combined with KEM-TRON's proprietary dewatering polymers. Each unit can be driven by a sophisticated Human Machine Interface control system and provides the operator the most efficient means of reclaiming water or oil from used drilling fluid.

**Hydration – Key to Dewatering Performance**  
The heart of KEM-TRON's dewatering systems are the proprietary polymer hydration manifolds. Each manifold is carefully engineered to provide optimum polymer hydration.

The result is a polymer-enhanced flocculation of colloidal and ultra-fine drilled solids that can be efficiently removed with a KEM-TRON decanter dewatering centrifuge.

Without such a system, operators would be left with the accumulation of colloidal and ultra-fine drilled solids in the circulating system. Ultimately leading to excessive mud densities, pipe torque/drag, mud loss, disposal fees, and overall well cost.

| Model Number:                | KT-DW-40                              | KT-DW-20                              | XP Polisher with Select Flocc™       |
|------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|
| Product Image:               |                                       |                                       |                                      |
| Description:                 | >40' HMI Semi-Trailer Dewatering Unit | 20' HMI Containerized Dewatering Unit | Trailer-Mounted Dewatering Unit      |
| Container Type:              | DOT Semi-Trailer or Container         | DOT Semi-Trailer or Container         | DOT Semi-Trailer or Container        |
| Length:                      | 40' (12.1m)                           | 20' (6.1m)                            | 24.5' (7.5 m)                        |
| Width:                       | 8' (2.4m)                             | 8' (2.4m)                             | 8.5' (2.6m)                          |
| Height:                      | 9.5' (2.9m)                           | 9.5' (2.9m)                           | 8.5' (2.6m)                          |
| Centrifuge (rpm / G's):      | KT-1448 (3,200 / 2,000)               | KT-1448 (3,200 / 2,000)               | KT-1448 (3,200 / 2,000)              |
| Processing Rate*:            | 15-110 gpm (3.4-24.9m³/Hr)            | 15-110 gpm (3.4-24.9m³/Hr)            | 15-110 gpm (3.4-24.9m³/Hr)           |
| Coagulant Tank:              | 2 x 160 gallon (606 liter)            | 2 x 160 gallon (606 liter)            | 330 gallon tote (1,250 liter)        |
| Flocculant Tank:             | 2 x 330 gallon (1,250 liter)          | 2 x 330 gallon (1,250 liter)          | 330 gallon tote (1,250 liter)        |
| Acid / Aux. Tank:            | 100 gallon (26.4 liter)               | N/A                                   | N/A                                  |
| Dissolution / Transfer Tank: | 460 gallon (1,750 liter)              | 460 gallon (1,750 liter)              | 460 gallon (1,750 liter)             |
| Tank Agitators:              | 4 x 1 HP                              | 4 x 1 HP                              | N/A                                  |
| Air Conditioning:            | Heater and AC                         | N/A                                   | N/A                                  |
| Control Room / Laboratory:   | 8' x 8' (2.4m x 2.4m)                 | N/A                                   | N/A                                  |
| Electrical:                  | 380V / 50Hz or 460V / 60Hz – 3 Phase  | 380V / 50Hz or 460V / 60Hz – 3 Phase  | 380V / 50Hz or 460V / 60Hz – 3 Phase |

## Chemically Enhanced Mechanical Separation

By combining expertise in both dewatering polymers and solid/liquid separation technologies, KEM-TRON has developed an organization capable of providing complex chemically-enhanced mechanical separation solutions. As a service oriented organization, KEM-TRON's focus is on providing timely value. This value is further enhanced when customers take advantage of KEM-TRON's integration, modularization, and customization capabilities. KEM-TRON will continue to be an industry leader in bringing mobile solutions to the industry's toughest solids management problems.



# Water-Based Drilling Fluid Dewatering Polymers

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### 40' HMI Double-Deck Dewatering Unit

Designed using an industrial trailer for extreme climates, this unit features a fully-integrated wastewater treatment & polishing system with holding tanks, mixing systems & clarifiers.



### 40' HMI Trailer Containerized Dewatering Unit

Trailer designed for extreme climates, this unit is capable of high volume application. Incorporates sophisticated graphical user interfaces, bench testing, chemical additive injection systems, centrifuge, and in-line mixer system.



### 20' HMI Containerized Dewatering Unit

Designed to be extremely compact for offshore or any restricted space application. Incorporates sophisticated graphical user interfaces, chemical additive injection systems, centrifuge, and in-line mixer system.



### Select Floc™ Dewatering Unit

By using existing equipment at the rig, the Select Floc™ allows customers to optimize existing assets, while incorporating the advances of KEM-TRON's polymer make-down and feed systems to create on-site dewatering.



|                                 | COLOR-KATCH 7  | COLOR-KATCH 7AF* | KAN-FLOC 2000DW   | KAN-FLOC E50   |
|---------------------------------|--|------------------|---|--|
| <b>Description:</b>             | Quaternary Polyamine<br><i>Water Soluble Cationic Polymer Coagulant</i>  |                  | Anionic Polyacrylamide<br><i>Water Soluble Anionic Polymer Flocculant</i>   |  |
| <b>Form:</b>                    | Liquid   | Liquid           | Powder  | Emulsion   |
| <b>Molecular Weight:</b>        | Low  | Low              | High  | High   |
| <b>Charge Density:</b>          | High   | High             | Medium  | Low  |
| <b>Specific Gravity:</b>        | 1.10 to 1.15   | 1.10 to 1.15     | 0.80  | 0.80   |
| <b>pH:</b>                      | 5.0 to 7.0   | 5.0 to 7.0       | 5.0 to 8.0 (0.5% sol.)  | 5.0 to 8.0 (0.5% sol.)   |
| <b>Product Viscosity (Cp):</b>  | 150 to 700   | 100 to 600       | N/A   | 1,100 to 1,200   |
| <b>Solution Viscosity (Cp):</b> | <100   | <100             | 1,100 to 1,300  | 400 to 600   |
| <b>Shelf Life (Months):</b>     | 24   | 24               | 24  | 12   |
| <b>Dissolution (Minutes):</b>   | 1  | 1                | 60  | 10   |
| <b>Freeze Point (°C):</b>       | -3   | -29*             | -3  | -3   |
| <b>Function:</b>                | <ul style="list-style-type: none"> <li>COLOR-KATCH is a high cationic structured liquid polymer used for primary colloidal particle neutralization and also creates molecular bridging to enmesh the destabilized particles.</li> <li>COLOR-KATCH is the building block when developing a "Hard Flocc" before the addition of KEM-TRON's KAN-FLOC flocculants for dewatering sludges with high suspended solids and drilling mud.</li> </ul> |                  | <ul style="list-style-type: none"> <li>Specially formulated flocculant applied after COLOR-KATCH coagulant dosing to enmesh destabilized colloidal solids and encapsulate with a polymeric film to withstand high G-forces generated by a decanter centrifuge dewatering.</li> <li>The phenomenon of the "Hard Flocc" produced by the dosing of COLOR-KATCH coagulants and KEM-TRON's KAN-FLOC products, stems from the configuration of the polymer chains on the surface of the colloidal particles.</li> </ul> |  |
| <b>Benefits:</b>                | <ul style="list-style-type: none"> <li>Works across a broad pH range.</li> <li>Does not alter pH of treated water or add soluble metals to treated water.</li> <li>Increases the rate of solid-liquid separation.</li> <li>Non-Hazardous and unregulated by DOT.</li> </ul>  |                  | <ul style="list-style-type: none"> <li>Works across a broad pH range.</li> <li>Maintains "Hard Flocc" in water with high salinity and hardness values when exposed to decanter centrifuge separation.</li> <li>Reduces hydraulic head losses through lowered "flow friction".</li> </ul>  |  |
| <b>Dosage:</b>                  | <ul style="list-style-type: none"> <li>Low Solids/Density Freshwater Drilling Muds (&lt;8.9 lb./gal.): 1,000 to 3,000 mg/l.</li> <li>High Solids/Density Freshwater Drilling Muds (&lt;10.0 lb./gal.): 3,000 to 7,000 mg/l.</li> </ul>   |                  | <ul style="list-style-type: none"> <li>Low Solids/Density Freshwater Drilling Muds (&lt;8.9 lb./gal.): 100 to 300 mg/l.</li> <li>High Solids/Density Freshwater Drilling Muds (&lt;10.0 lb./gal.): 300 to 600 mg/l.</li> </ul>  |  |
| <b>Packaging:</b>               | <ul style="list-style-type: none"> <li>5 gallon pail (45 lb.) / 18.9 liter (20.4 kgs)</li> <li>55 gallon drum (500 lb.) / 208 liter (94.3 kgs)</li> <li>275 gallon tote (2,500 lb.) / 1,041 liter (1,134 kgs)</li> </ul>   |                  | <ul style="list-style-type: none"> <li>50 pound (22.7kg) bag</li> </ul>   | <ul style="list-style-type: none"> <li>55 gallon drum (450 lb. net wt.) / 208 liter (94.3 kgs)</li> <li>275 gallon tote (2,300 lb. net wt.) / 1,041 liter (1,134 kgs)</li> </ul> |

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