

## Chemically Enhanced Mechanical Separation Solutions

By combining expertise in both dewatering and liquid/solid separation technologies, Elgin provide complex, chemically-enhanced, mechanical separation solutions. Elgin's containerized polymer injection system is a prime example, showcasing this expertise.

Polymer injection is key to efficient liquid/solid separation when dewatering in a 'closed-loop zero discharge' environment. Furthermore, the addition of polymers during operation allows the operator, to recover water from the fluid, maximizing profits.

Dewatering also maximizes drilling fluid recovery, ultimately lowering overall mud costs as well as disposal and transportation expenses. Furthermore, Elgin's systems improve mud properties therefore improving the rate of penetration. With a "zero-discharge" or "closed-loop system" rigs can operate without mud pits, therefore reducing the location footprint and environmental impact.



20-Foot Containerized Polymer Injection System

Elgin's is a vertically integrated turn-key solutions provider that targets the specific individual needs of each customer. This value is further enhanced when customers take advantage of Elgin's integration, modularization, and customization capabilities. Elgin is an industry leader in bringing mobile solutions to the industry's toughest solids management problems.



10-Foot Containerized Polymer Injection System

### Polymer Injection System Benefits

- Fully containerized system with multiple tanks for continuous polymer mixing without system downtime.
- Dual injection manifolds allow for fluid processing to multiple centrifuges.
- Proprietary control panel with touch-screen interface controls entire system for accurate mixing and processing capabilities.
- Built-in flow meters monitor and log daily processing for increased productivity.
- Tank level sensors add a level of protection to prevent injection pumps from running dry.





Dedicated VFD-Driven Polymer Pumps

### System Features

- Dedicated Progressive Cavity Pumps for Polymer Injection
- Top-Mounted Tank Agitators
- In-Line Static Mixers
- Flow Meter for Operation Tracking
- Twin-Line Manifold for Multiple Fluid Feeds
- Optional Climate Control HVAC System
- Touch-Screen Control panel with Built in Wi-Fi Network for Remote Monitoring
- Fresh Water Intake Dilution Gauge



Static Inline Mixers and Flow Manifold



Flow Meter Monitoring System

## Containerized Dewatering Systems with Decanter Centrifuges

Elgin's integrated solutions includes complete dewatering systems featuring OEM decanter centrifuges in either 10-foot, 20-foot, or 40-foot containerized packages.

### 20-Foot Dewatering System

Featuring Elgin's Apex 9FVFD™, Apex 14VFD™ or Apex 16FVFD™ decanter centrifuge. This complete system includes dedicated polymer tanks, injection pumps, in-line static mixers, control panel, and transfer pump. Additional options include explosion-proof configurations and climate controls for harsh environments.



### 40-Foot Dewatering System

Featuring Elgin's Apex 19FVFD™ or Apex 22FVFD™ decanter centrifuge. This complete system includes dedicated polymer tanks, injection pumps, in-line static mixers, control panel, and transfer pump. Additional options include explosion-proof configurations and climate controls for harsh environments.

