



# Apex 14FHD™

Electronically-Controlled Hydraulic-Driven  
Precision Decanter Centrifuge



## Next-Generation Centrifuge Engineering

The Apex 14FHD™ is Elgin's most advanced decanter centrifuge to date—blending the raw power of hydraulic drives with the precision of digital control. Built with a patented electronically-controlled, hydraulic-driven platform, this unit delivers unmatched performance, protection, and control in the most demanding separation environments.

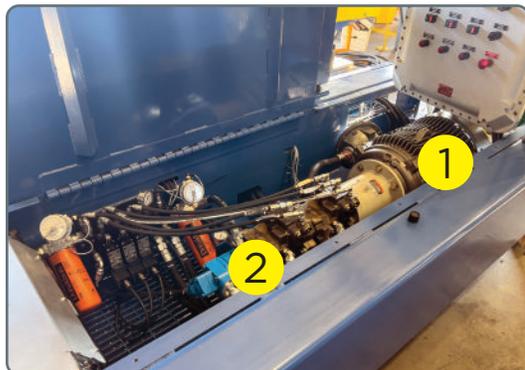
### Key Performance Advantages

- **Hydraulic Efficiency with Digital Precision**  
Powered by an electronically controlled hydraulic motor, the Apex 14FHD™ ensures consistent bowl and scroll performance, even under fluctuating loads. The ELGIN-NOW™ platform fine-tunes torque and speed transfer to within  $\pm 1$  RPM at over 3,000 RPM, outpacing traditional analog systems.

- **Rapid Shutdown Technology** - Unlike conventional systems that may take minutes to decelerate, the Apex 14FHD™ uses hydraulic braking via relief valve engagement—shutting down in seconds to minimize damage and downtime.
- **Scalable and Future-Ready** - ELGIN-NOW™ is a digitally native platform, laying the groundwork for machine learning, predictive maintenance, and AI optimization, future-proofing your operation.

### Applications

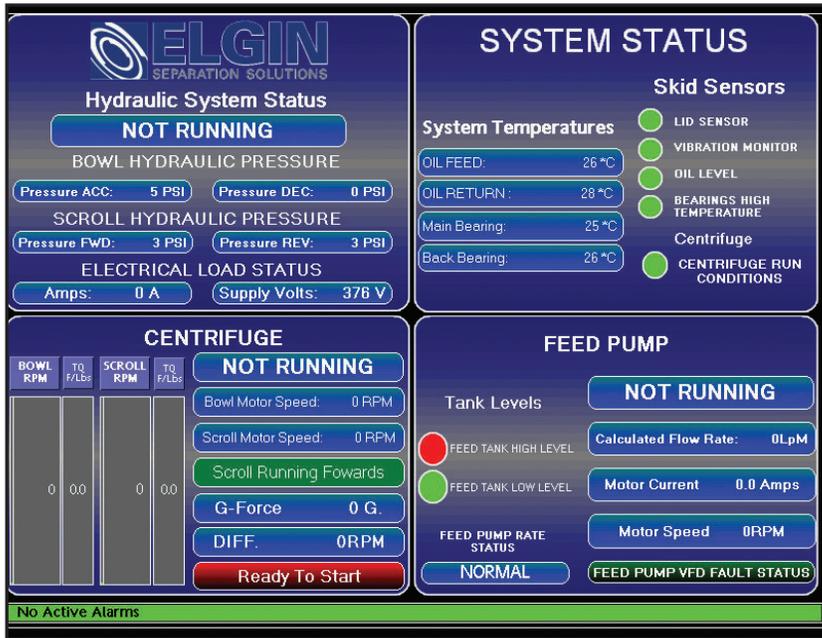
- Drilling Fluid Recovery
- Municipal Wastewater Dewatering
- Industrial Sludge Separation
- Mining and Minerals Processing
- Environmental Remediation



### Primary Components

1. 75hp Explosion Proof Electric Power Motor
2. Variable Hydraulic Pump, Dual Displacement, 55cc/R Max.
3. Variable Speed Hydraulic Motor for Main Drive
4. Variable Speed Hydraulic Motor for Back Drive
5. Hydraulic Reservoir, 60 Gal. Capacity
6. Hydraulic Heat Exchanger With 3/4hp Explosion Proof Motor
7. Type 7 Explosion Proof Electrical Control Panel
8. 14" x 50" Stainless-Steel Rotating Assembly





Elgin's proprietary user interface provides complete control of all systems, as well as, a sophisticated set of diagnostic tools, safety interlocks, and fault logs.

Control systems offer a variety of enhanced features including, internal lighting, ventilation and heating, Ethernet porting for diagnostics and programming updates, and a custom designed user interface that allows for maximum operating flexibility and control.



Multiple control panel configurations available.



### Built for Demanding Environments

- **Heat-Resistant Hydraulics** - An integrated heat exchanger keeps hydraulic fluid stable, while a breather-filtered reservoir ensures clean operation and low maintenance.
- **Rugged Construction** - Built with stainless steel rotating assemblies and ASTM A36 tubular framing, the Apex 14FHD™ is powder-coated and sealed to perform in corrosive, high-vibration environments.
- **Compact & Configurable** - Hydraulic components built into the base protects components from extreme environments while providing open space for easy maintenance of the rotating assembly.

### Proactive Automation for Uptime and Safety

The Apex 14FHD™ comes standard with Elgin's Type 7 explosion-proof control panel, featuring a proprietary HMI interface. This isn't just control—it's complete oversight.

#### Integrated Features:

- Full system visibility with real-time diagnostics & alerts
- Maintenance schedules with smart reminders
- System alarm notifications to avoid unplanned shutdowns
- Remote monitoring via optional Wi-Fi module
- Operational control of connected pumps and discharge conveyors

### Complete System Customization

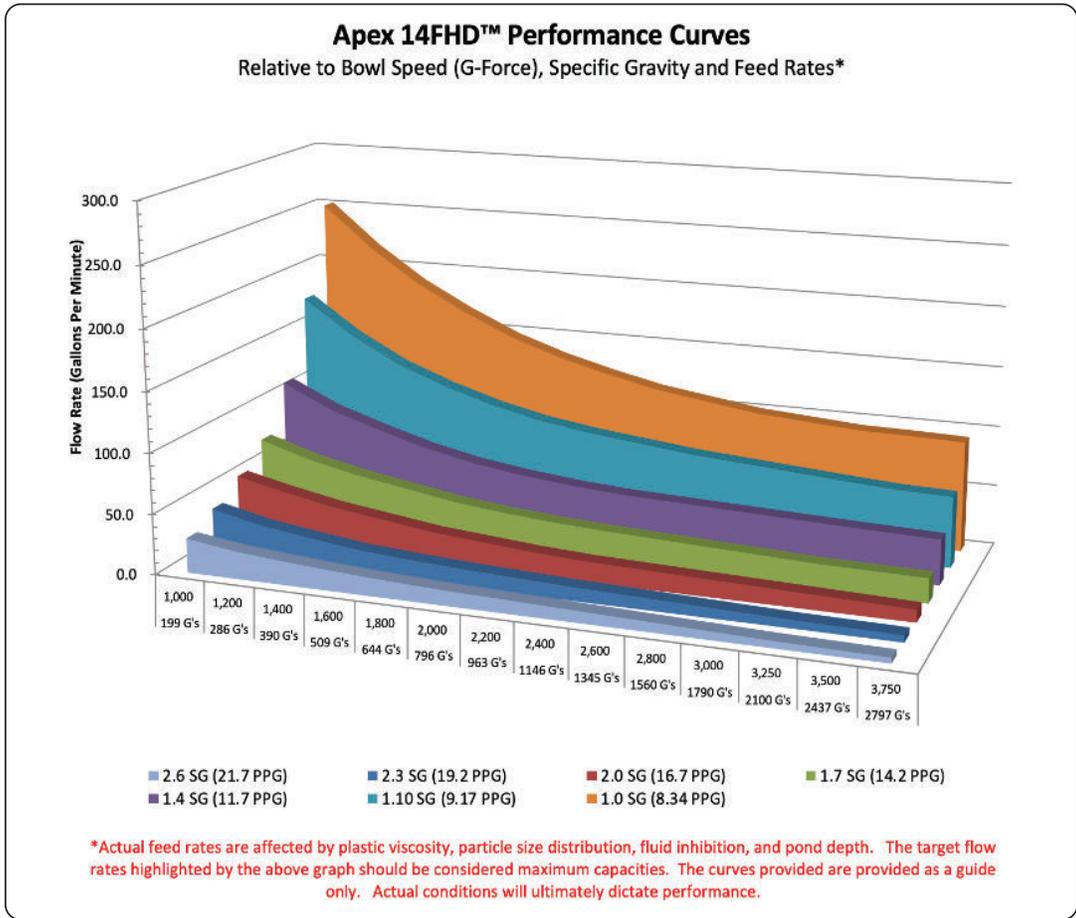
Whether it's a stand-alone centrifuge, trailer-mounted, or part of a fully containerized dewatering unit, Elgin's engineering team can deliver your ideal setup.

#### Optional Components Include:

- Progressive cavity or self-priming feed pumps
- Solids discharge screw conveyors
- Polymer injection systems with inline static mixers
- Telescoping stands or mobile trailer platforms
- Fluid tanks with high/low sensors for feedback control

*When it comes to optimal operation performance, it is key to integrate safety interlocks to prevent equipment malfunction during operation. Elgin centrifuges are equipped with a host of premium industry-standard safety interlocks.*





## General Performance

<b>Maximum Hydraulic Flow Rate</b>	<b>Cut Size</b>
250 GPM	2-5 μ (Without Polymer Addition)

## Major Equipment

<b>Maximum G Force</b>	<b>Maximum Practical Speed</b>
2,100	3,250 rpm
<b>Bowl Construction</b>	<b>Bowl Diameter</b>
304 Stainless Steel	14"      356 mm
<b>Gearbox Ratio</b>	<b>Bowl Length</b>
52:1	50"      1,270 mm
<b>Dimensions (L x W x H)</b>	<b>Weight</b>
120" (3,048 mm) L x 80" (2,032 mm) W x 61" (1,549 mm) H	8,200 lbs (3,719 kgs)
<b>Main Motor</b>	<b>Hydraulic Oil Reservoir</b>
75HP 460v/60hz      3-Phase	60 Gallon (227 Liters)