

Transform your land operations with the first fully electric-powered cementing unit

Hummingbird all-electric land cementing unit

SCAN NOW TO LEARN MORE



The Hummingbird™ all-electric land cementing unit performs cement jobs with significantly reduced carbon emissions, noise levels, and reliability issues compared to standard diesel units. As the industry's first fully electric unit with no hydraulic components, the Hummingbird unit runs cleaner for longer in land operations for the oil and gas and new energy sectors alike.

CLEANER OPERATIONS

The Hummingbird unit's all-electric motor replaces the diesel cement units widely used in today's onshore operations. Powered by batteries or connected to the local grid, the motor's dual-power functionality affords continuous productivity on site. This functionality also allows for access to lower carbon energy supplies that help minimize an operation's CO₂ footprint.

ENHANCED RELIABILITY

The Hummingbird combines cement mixing and pumping in a single trailer-mounted unit designed for reliable operation in high-pressure applications. The unit is rated to approximately 1,050 hydraulic horsepower (782 kW) and is equipped with two high-pressure triplex pumps.

While actual performance depends on fluid end and plunger size selection, the unit is designed for reliable pumping performance at working pressures of up to 12,000 psi (82.7 MPa).

EFFECTIVE CONTROL

The Hummingbird unit is equipped with several monitoring and control systems to ensure delivery of the optimal cement slurry for every job.

- The unit's recirculating mixing system provides exceptional slurry density control and consistency across a broad range of densities and can mix to within ± 0.1 lbm/gal
- A mass flow meter continuously checks slurry density throughout the job
- The system offers a wide range of mixing rates, dependent on the slurry density, to deliver slurry rates as high as 11 bbl/min and densities up to 24 lbm/gal

APPLICATIONS

- Onshore primary cementing operations
- Pressure tests
- Plug-and-abandonment
- Acidizing and water conformance
- New energy operations including geothermal, CCUS, hydrogen, and mature brownfields

BENEFITS

- Can reduce carbon footprint to help meet emissions goals
- Provides flexible, dual-power options
- Enhances reliability with full-electric, motors. No hydraulic systems.
- Provides dual independent pumping system for backup and reliability
- Utilizes the electric motor controller to achieve more precise control of the pumping rate
- Improves safety for workers in the field
- Controls, monitors, and records job parameters online for remote, real-time post-job analysis

IMPROVED SAFETY

The Hummingbird unit eliminates traditional hydraulics for superior reliability and lower maintenance requirements and costs. The electric motor runs much quieter than diesel units, reducing noise emissions to improve worker safety in the field. The control cabin further improves safety by reducing operator exposure to chemicals and high pressure exposure.

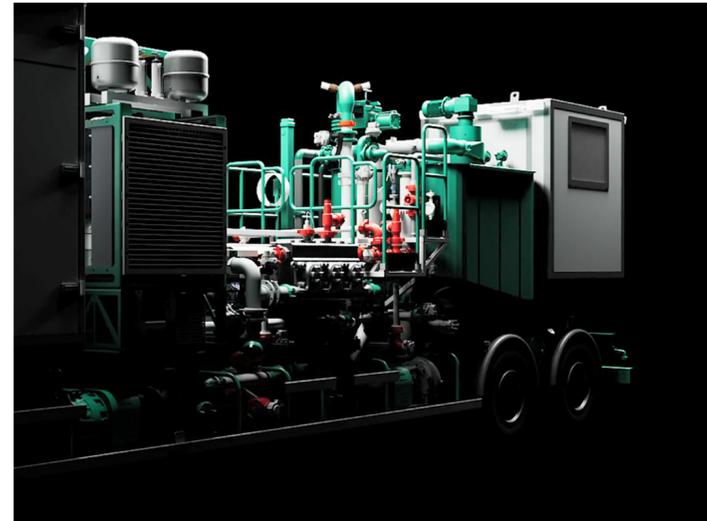
Contact your Baker Hughes representative to discuss how the Hummingbird all-electric unit can deliver unsurpassed reliability and lower emissions to your land cementing operations.

TYPICAL PROPERTIES

Features	Specifications
High-pressure pumps	Pacemaker pump with 3½-in. (15,000 psi) and 4½-in. (10,000 psi) plungers With current motor configuration maximum allowable working pressure would be: <ul style="list-style-type: none">• 3½-in. plunger 12,000 psi (82.7 MPa)• 4½-in. plunger 5,800 psi (40.0 MPa)
High-horsepower powerhouse	<ul style="list-style-type: none">• Two Danfoss EM engines• Maximum rated 1,050 hydraulic horsepower (HHP) [782 kW]
Mixing system	<ul style="list-style-type: none">• Baker Hughes de-aerating/eductor mixer discharging into a two-compartment, 24 bbl (3.8 m³) mixing tank (8 bbl primary/16 bbl secondary) equipped with an electrical driven agitator in each tank• Four Mission Magnum centrifugal pumps: Two mixwater, two slurry
Other	<ul style="list-style-type: none">• Two automatic liquid additive systems mounted on the unit• Acid line (Hastelloy): Direct low-pressure feed to fluid end• No displacement tank for less chemical exposure risk• Liquid defoamer system with flow meter

The Hummingbird unit combines cement mixing and pumping on a single trailer and is designed for fast deployment and efficient installation in the field.

The Hummingbird incorporates several innovative systems into a single high-performing, all-electric pumping unit.



The Hummingbird™ all-electric land cementing unit.

Hummingbird™

all electric land cementing unit