

CPS 3000

Cement pumping skid

APPLICATIONS

- Mixing and pumping of cement slurries in deepwater applications
- High-pressure pumping and testing
- Precision pumping for integrity tests

BENEFITS

- Reduced operating time due to greater mixing rate capability
- Lower NPT because of full redundancy of systems

FEATURES

- High hydraulic horsepower for metered displacements and completion pumping operations
- Dual Mark III mixers from the range of SLURRY CHIEF* cement mixing equipment, with tanks capable of 22-bbl/min rates for lead slurries and 15-bbl/min rates for standard tail systems
- Twin 100-bbl batch mixers that can be integrated for spacer pill mixing, isolated from contamination points
- High-rate, process-controlled, direct-injection liquid additive system to accurately meter up to seven chemicals into the mix water stream
- Accurate control of slurry density

The CPS* 3000 cement pumping skid is a 3,450-hp unit capable of pumping 26 bbl/min at pressures up to 15,000 psi (18,000 psi with a high-pressure manifold). Two complete process control units handle data acquisition and control, providing redundancy and reliability for automated cement mixing, solids fraction monitoring, foam process control, and liquid additive system operation.



CPS 3000 cement pumping skid.

CPS 3000 Skid Specifications

General	
Engines	Two General Electric® GEB22 motors and one General Electric GEB20 motor
Capability (each)	1,150 bhp [860 kW]
Transmissions	Allison Transmission® S8610M with air shift, six speeds Allison Transmission S9810M with air shift, seven speeds
Cooling systems	Marine cooled
Triplex Pumps	
Model 1	Gardner Denver GD1250 Series with 3¼-in fluid end
Capability	18,100 psi [124 MPa] or 8.9 bbl/min [1.4 m³/min] (FOPI)
Model 2	Gardner Denver HD2250 Series with 5½-in fluid end
Capability	10,000 psi [69 MPa] or 19.3 bbl/min [3.1 m³/min] (IOPI)
Discharge manifold	15,000 psi [103 MPa]
Displacement tanks	2 × 20 bbl [3.2 m³], stainless steel 316
Slurry Mixing System	
Model	Twin CBS-393 mixing systems with Mark III mixers
Maximum mixing rate	22 bbl/min [3.5 m³/min] for lead slurry and 15 bbl/min [2.4 m³/min] for standard tail slurry (60 sacks/min of dry cement per mixer)
Volume capacity	6-bbl [0.9-m³] mixing tub and 18-bbl [2.9 m³] averaging tank per mixer
Liquid Additive System	
Model	Four SUP-511 pumps (Waukesha 015U2)
Capability of SUP-511	0.25–11 galUS/min at 100-psi [0.69 MPa] max. discharge pressure
Model	Three SUP-512 pumps (Waukesha 045U2)
Capability of SUP-512	1.0–54 galUS/min at 100-psi [0.69 MPa] max. discharge pressure
Flowmeters	Micro Motion™ R050S and R100S, accurate to ± 0.5% of flow rate
Other	
Area classification	Zone 2 package, DNV certified
Process control and acquisition	Redundant control systems
Auxiliary equipment	Twin 100-bbl [15.9 m³] batch mixers, electric with independent drives for each centrifuge and agitator

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