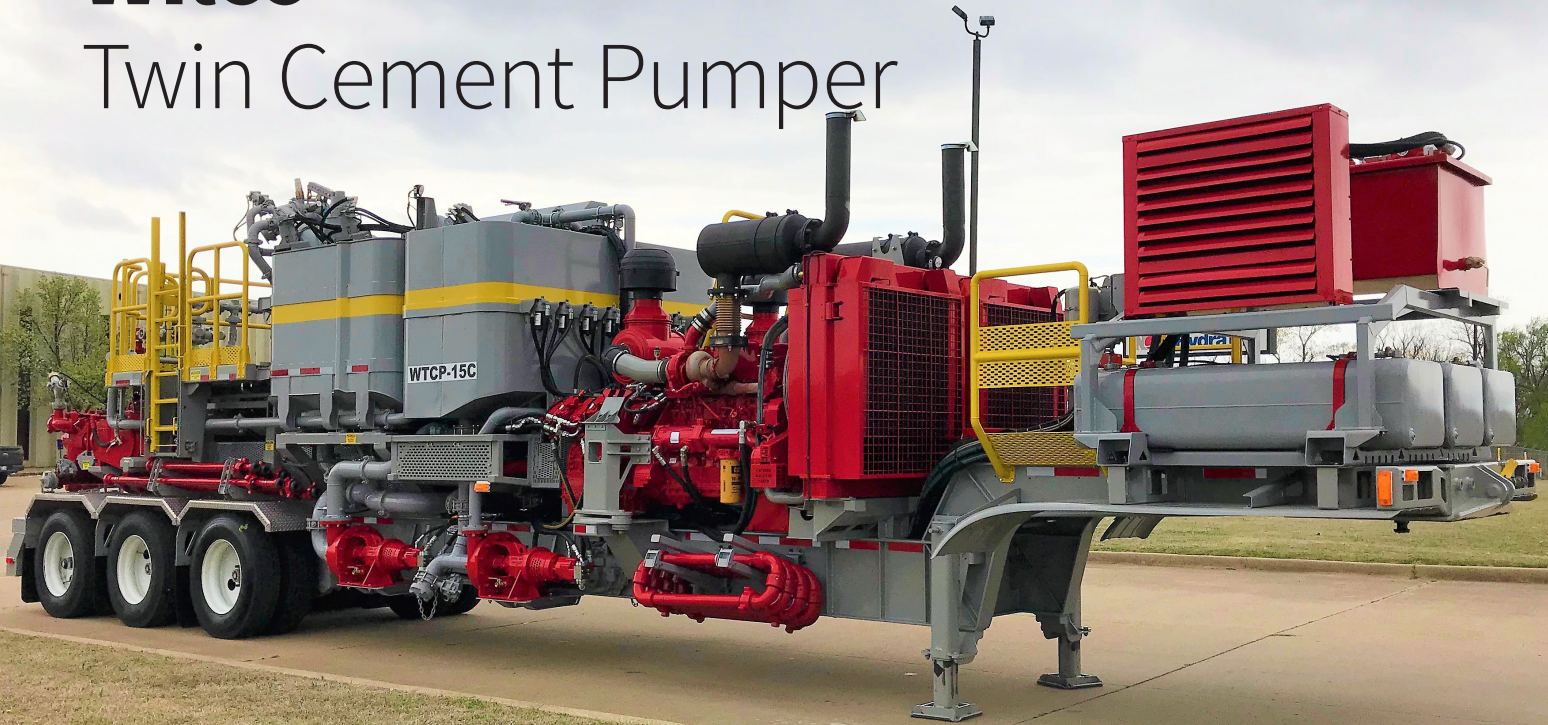


# Wilco

## Twin Cement Pumper



Our standard version does not require emission regeneration.

The Wilco™ two-engine 1330-hp twin cement pumper trailer assembly is designed to mix and/or blend cement and water or previously mixed cement slurry from a batch mixer. The mixing process at the trailer includes Rolligon™ Continuous Automated Mixing System (CAM III), a continuous automated mixing control system. CAM is designed to automate all aspects of the cement mixing process including mix water, bulk cement, and tub level. Two 665-hp engines directly drive high-pressure triplex pumps to displace cement slurry to the wellhead. These engines also power hydraulically driven systems.

### Engines

- Two 665-hp Volvo 16-L engines capable of running all hydraulically powered components (*Volvo 665 hp class, Tier 4 engines do not require emission regeneration*)
- 4700-OFS Allison transmissions
- 300-gallon total fuel tanks capacity
- 180-gallon hydraulic fluid tank capacity

### Tanks

- Four paddle-style agitators—one in mixing tub and one in averaging tank
- Mix/blend vessels
  - 3-bbl mixing tank capacity
  - 4-bbl averaging tank capacity
- Two displacement tanks with 12-bbl capacity each (24 bbl capacity total)

### Pumps

- High-pressure pumps equipped with customer-specified high-pressure triplex pumps, with 4.5-in. diameter plungers standard (or sized by customer preference).
- Centrifugal pumps
  - Pump 1:** 6 × 5 × 11 centrifugal pump for mixing tub recirculation
  - Pump 2:** 6 × 5 × 11 centrifugal pump for water fill/displacement to mixing head
  - Pump 3:** 6 × 5 × 11 for boost pressure for high-pressure pumps, back-up of either slurry recirculation pump, or water fill/displacement pump

## Twin Cement Pumper

---



### Mixing/blending system

- The agitators' and centrifugal pumps' hydraulic motors are run with hydraulic pumps powered from both 655-hp engines. The hydraulic system's pumps are set up with two transmissions' PTOs to drive the hydraulic motors that power the centrifugal pumps, agitators, and external cooling systems. Also, cement blending system hydraulic stacks are divided between the two engines, allowing for more evenly distributed horsepower draw from both engines.
- Micro Motion™ Coriolis densometer used for density measurement from mixing tank recirculation line
- A control console on the work platform is designed to allow control of engines, hydraulic systems, and manifold valves from a single location
- Data acquisition capability for pump discharge pressure, rate, and density
- Manifold system is designed for easy cleanup and maintenance.
- Rolligon™ high-energy recirculating mixing head is used:
  - Performance repeatability
  - Manual mix controls
  - Ensures 100% API recommended mix energy (requires complete NOV engineered system)
  - Continuous fresh water jet mixes with dry bulk cement before adding recirculated slurry
  - Works with integrally mounted diffuser to reduce air entrainment
  - Field-proven design and easy maintenance

### Trailer

- Air suspension 75,000-lb triple axle total load capacity (25,000-lb each)
- Dual tires are 11R24.5 (standard model)
- Two landing legs have 62,500-lb lift capacity per pair
- 2-in. weld-on kingpin coupler (3.5 in. optional for applicable international locations)
- Custom-designed wide-flanged trailer side beams provide structural support during transport and for maximum loading during pumping operation.
- Support and bracing technique used for tanks, engine, high-pressure pumps, and work platform designed to minimize vibration
- Work lights are all rectangular, 24-v LED lights. The top work area is illuminated with four lights. Six other lights are positioned at various locations such as the engine platform and pump discharge.

### Options

- Mixing/blending system
  - Coriolis densometer in the cement discharge line to measure density of discharge slurry
  - CAM III for precision automated density control of water, bulk cement, tub level, liquid chemicals
  - Magnetic flow meter can be located in the belly line for measuring rate and total volume displacement fluid.
  - Displacement tank agitators
- Trailer
  - Utility iron package available