



# Wilco Skid-Mounted Batch Mixers

50-bbl, 100-bbl, and 150-bbl

## Efficiently blend cement slurries offshore

Our range of Wilco™ 50-bbl, 100-bbl, and 150-bbl skid-mounted batch mixers quickly and efficiently blend cement slurries and discharge to either downhole pumping equipment or a cement mixing skid for fine-tuning of your cement slurry. Our purpose-built manifold system is engineered to move water and dry bulk cement (or pre-mixed cement) to the batch mixer. It then blends the cement slurry by recirculating the cement through mixing tank(s) and then displaces cement to the cement pumper. This system also performs various styles of blending. The batch mixer is mounted on a skid with a lift frame that can be optionally certified to 2.7-1 or other specifications.

The versatile Method I mixing-displacement manifold is designed for slurry or water displacement from anywhere to anywhere. Dry bulk cement is quickly hydrated as it is displaced into the mixing head via this dustless system. Additional hydration and blending occur as the slurry is pumped through the mixing tank agitators and weirs. The blend is thoroughly homogenized and hydrated as it is pumped through the mixing manifold. The conical base of the blend tank ensures that there are no dead spots. The slurry can be precision blended by the batch mixer or fine-tuned at a mixing skid or cement pumper.

### Power unit options

We provide skid-mounted batch mixers powered by either a diesel engine or electric motors.

- Diesel: A 350-hp diesel engine powers 100-bbl and 150-bbl designs. Available with Tier 4 or Tier 3 (export) emission compliance. A 4.5-liter diesel engine powers the 50-bbl design.
- Electric: Two electric motors power our skid-mounted batch mixers. Electric motor power (hp), voltage, and all other electrical system specifications are specified by the customer. The electrical system includes a soft start, motor disconnect, power supply, and flameproof enclosure.

### Mixing process

The mixing process is continuous, as the recirculated fluid can be mixed with more water or bulk material at the Gyro Energy mixing head. This operation can be performed by either or both pumps, mixing slurry in the separate tanks simultaneously or being used for discharge or water fill operation. Water can also be displaced directly into the mixing vessel, bypassing the mixing head.

## Features

- Designed to meet all offshore requirements and equipped with a heavy-duty enveloping lift frame mounted on a skid base with lift eyes and tow bars on each end—optional certification to DNVGL or other offshore specifications. Also, optionally equipped with certified lifting slings.
- Mix tanks with bottom cone for more efficient mixing displacement and improved cleanout, and marked internal tank weirs provide easy visibility of tank volume
- 100- and 150-bbl pump manifolds feature two or three 6 x 5 x 11 centrifugal pumps (or customer choice) for recirculation-mixing of slurry through either or both of the two mixing tanks, discharge of slurry to the pumper, slurry fill, and water fill
- Single 50-bbl mix tank features a standard 50-bbl manifold scheme with a compact design that allows one centrifugal pump for water fill, recirculation, and discharge
- Paddle-style agitators inside the batch mixer vessels provide more complete slurry blending
- Conical prehydrator eductors may be used for adding bulk material or chemical additives into the recirculation mixing flow line on the fly
- Panel-stand control console for remote control of valves, hydraulic drives, and engine. Manually operated control valves within reach of the operator.
- Support and bracing technique used for tanks and work platform designed to minimize vibration
- Manifold system designed for easy cleanup and maintenance
- The “Gyro Energy” type mixing head is a dustless system that educts, rotates, and recirculates slurry, water, and dry bulk cement.
- The versatile mixing-displacement manifold is designed for efficient slurry mixing
- LED work lights for additional safety illuminate the top work platform and centrifugal pumps, manifold, and power unit area
- Prewash system included; tanks can also have optional internal spray nozzles for cleanup.
- Painted with a three-coat offshore paint system that includes zinc-rich primer, epoxy intermediate coating, and chemical resistant urethane enamel topcoat.

## Options

- Micro Motion densometer (non-radioactive) used for density measurement through recirculation line.

## Quality management, assurance, and requirements

- ISO-9001 certification
- Bolt holes drilled or laser cut, not torch cut
- Third-party certified weld procedure specifications

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## Specifications

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Dimension	50 bbl	100 bbl	150 bbl
Capacity	50 bbl (7.95 m <sup>3</sup> )	100 bbl (15.90 m <sup>3</sup> )	150 bbl (23.85 m <sup>3</sup> )
Length	23 ft (7.01 m)	35 ft (10.690 m)	35 ft (10.67 m)
Height	11 <sup>3</sup> / <sub>4</sub> ft (3.58 m)	11 <sup>11</sup> / <sub>12</sub> ft (6,632 m)	14 <sup>5</sup> / <sub>12</sub> ft (4.39 m)
Width	8 ft (2.44 m)	8 <sup>1</sup> / <sub>2</sub> ft (2,590 m)	8 <sup>1</sup> / <sub>2</sub> ft (2,590 m)
Weight	27,000 lb (12,300 kg)	55,500 lb (25,200 kg)	60,000 lb (27,200 kg)