

Wilco

Trailer-mounted Batch Mixing Unit



Our mixing-displacement manifolds have a 100-bbl capacity and are offered in three different centrifugal pump configurations.

Our Wilco™ trailer-mounted batch mixing unit is designed to move fluid to the batch mixer, blend and recirculate through two 50-bbl tanks, then displace to the pumper. Our versatile manifold system is set up to perform a variety of different styles of blending.

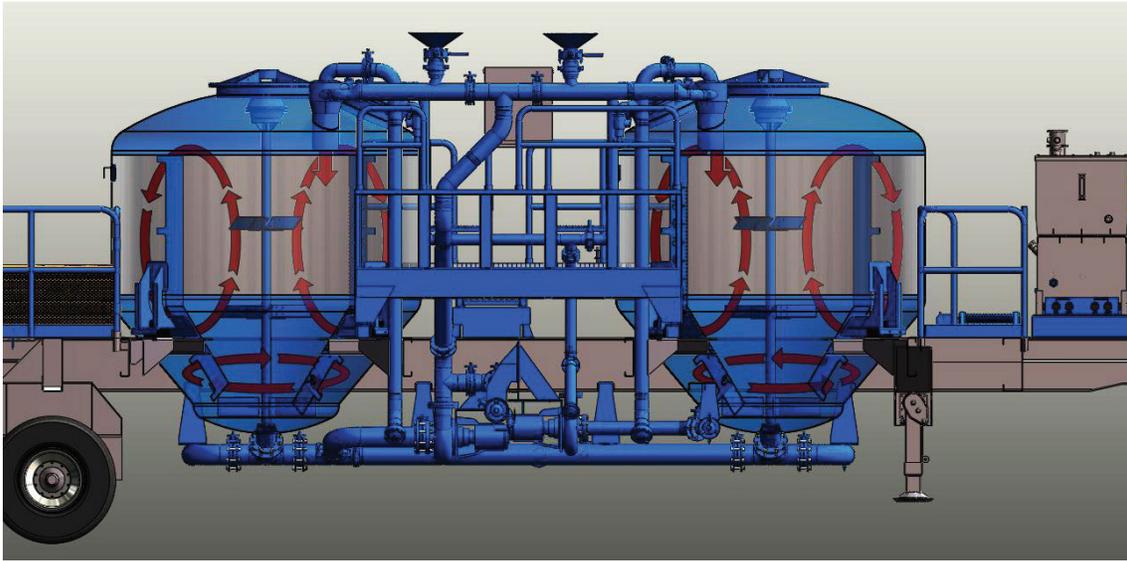
Method I mixing-displacement manifold

The versatile method I mixing-displacement manifold is designed for slurry or water displacement “from anywhere to anywhere”. During recirculation and loading of water and bulk material, the fluid and bulk mixture is pumped in to the vessel through the mixing head. The mixture then flows through the mixing agitation apparatus in the cement blending vessel. It is then pumped out the bottom of the vessel with a 6x5 centrifugal pump and then circulated back up to the mixing head. The process is continuous, as the recirculated fluid can be mixed with more water and bulk material at the swirl-type mixing head. This operation can be performed by both or either of the pumps mixing slurry in the separate tanks, simultaneously, or being used for discharge or fill operation. Water can also be displaced directly into the mixing vessel, bypassing the mixing head.

Pump configurations available

- Two pump configuration: 6x5 and 4x3 or 6x5 and 6x5
- Three pump configuration: 6x5, 6x5, and 4x3

Trailer-mounted Batch Mix Unit



Flow diagram detail

Features

- Two 50-bbl tanks 8½ ft diameter, 13¼ ft tall
- Pumps can be used to displace either water or premixed cement during fill operation, along with circulation through either one or both of the two mixing tanks, discharge, slurry fill, and water fill.
Pump 1: 6×5×11 centrifugal pump
Pump 2: 4×3×13 centrifugal pump
- Three rows of paddle-style agitators in blender vessel designed to create toroidal flow within the blender
- The cement mixing agitator and centrifugal pump are run with hydraulic motors.
- Powered by Cat 9 diesel engine
- Conical prehydrator may be optionally used for additives or bulk material to one or both tanks, while mixing “on the fly.”
- Work platform allows front end loader equipment to deliver pallets of additive and bulk materials to work platform. Safety rails on sides of work platform double as full opening gate.
- Panel-stand for remote control of air-actuated valves, and engine and hydraulic drives
- Micro Motion™ densometer is used for density measurement through recirculation line (optional)
- Support and bracing technique used for tanks and work platform is designed to minimize vibration on the work platform.
- 50,000-lb (25,000 lb each) tandem air suspension
- 11R22.5 dual tires (standard model)
- Four landing legs with 62,500-lb lift capacity
- Straight, non-upset side beams provide support for heavier loads during mixing
- Manifolds latched to the inside of the frame sides and are designed for easy cleanup and maintenance. The water or slurry supply and recirculation lines are independent of each other, and they can be optionally used with either or both vessels, and/or simultaneously if required.
- The swirl-type mixing head is the confluence of the lines for 1) slurry recirculation, 2) water fill, and 3) dry bulk cement fill. These mixing heads are located at the top of the cement blending vessels. The water fill lines allow option of flow ing to mixing head or directly into the blending vessel. A diffuser flow deflector, located at the outlet of the mixing head, provides improved initial hydration of the bulk cement.
- Rear platform designed for carrying four standard shipping pallets. The platform is useful for transporting sacks of bulk materials, additives or casing cementing equipment such as float equipment, shoes, centralizers, and more.
- Work lights are all rectangular, 24-v LED lights. The top work area illuminated with 4 lights. Two lights are mounted on swivel arms over the batch mixers’ manways. Two lights are also mounted underneath the work platform to light the area of the centrifugal pumps and the recirculation, fill and discharge manifolds. A work light mounted on the front blender vessel and is directed to the power unit. Another work light is mounted on the rear vessel and is focused on the rear transport platform.
- Prewash system included
- MC-II flow meter and analyzer (optional)