

# WASP

## Water and sand proportioner

### APPLICATIONS

- Continuously blending proppant into brine
- Mixing sand and water accurately for gravel-pack slurry at low rates and concentrations
- Pumping sand and water mixture to the triplex pump
- Offshore or land

The skid-mounted WASP\* water and sand proportioner is specifically designed to proportion gravel with low-viscosity carrier fluids. The unit is equipped with a 1-bbl stainless steel tub for continuous mixing and mechanically operated trapezoidal gate controls. A centrifugal pump delivers the sand and water mixture to the high-pressure triplex pump.

A densitometer monitors and records the gravel concentration being pumped. All the piping is made of stainless steel, and the skid-mounted unit is designed for use offshore.

### WASP Specifications

#### Offshore skid

Length, ft [m]	7.3 [2.2]
Width, ft [m]	6.4 [2]
Height, ft [m]	6.3 [1.9]
Weight, lbm [kg]	3,000 [1,361]

#### Mixing tub

Volume, bbl [m3]	1 [0.2]
Mixing ratio	1–5 lbm [0.45–2.27 kg] of sand added per 1 galUS [3.8 L] of water

#### Max. downhole rates

8 bbl/min at 1 lbm of proppant added per 1 galUS of water
5 bbl/min at 8 lbm of proppant added per 1 galUS of water

#### DS RA 4 × 5 centrifugal pump

Maximum circulation rate, bbl/min [L/min]	12 [1,908]
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#### Stainless steel piping

Suction piping diameter, in [cm]	4 [10.2]
Discharge piping diameter, in [cm]	4 [10.2]

#### Mechanically operated trapezoidal gate controls

Accuracy	±0.5 lbm at 5 lbm of proppant added per 1 galUS of water
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