mSand

Automated sand discharge system

The mSand automated sand discharge system is a **complete solution for managing solids** produced by hydraulically fractured wells.

The unit features a service skid for easy transport and field installation.

Easily integrates with your on-site SCADA system or optional MMi telemetry package for complete visibility into your operations from anywhere.

Features:

- Stand-alone, remote or manual control
- Two plug valves and one flow control valve are designed to open and close in sequence, minimizing erosion damage to the plug valves.
- Shut-off sensor against excess flow of the discharge tank.
- The new patented algorithm detects the pressure drop at the gas inlet, automatically triggering the system shutdown.
- Possibility of depressurizing the valve skid from the control panel with “Maintenance Mode.
- Connection to mSafe safety system (ESD/VSS)

Integraciones:

- MMS
  Sistema Master Manifold
- mWeight
  Sistema de pesaje de arena
- mPower
  Estación generadora autónoma
- Autogrease
  Unidad de engrase automático

Valves integrated

Equipped for locations without physical staff

Essay of integrity

Real-time monitoring

Operation warning alarm and maintenance alerts

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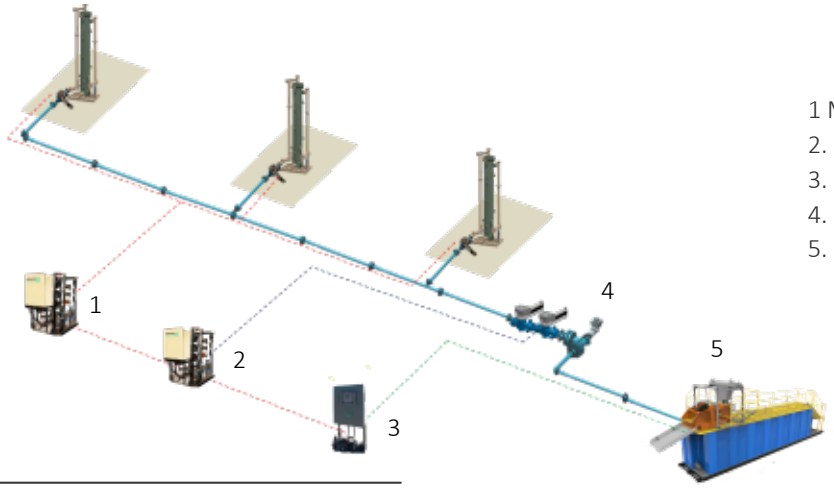

1 MMS- Manifold
2. mSand- Sandblasting Controller
3. mWeight- Control Panel
4. HA-NAM- 1/4 turn actuator
5. mWeight- Weighing unit

FIG 1: LAYOUT EXAMPLE

Valve Integrity Testing. The mSand control system is easily programmed to perform valve integrity testing by adjusting the frequency based on the need of the operation. This unique capability adds a high level of safety in unmanned wells. If a valve fails the integrity test, the system automatically sends a shutdown signal to shut in the well or bypass the sand separation system.

Real-time well information. mSand uses ModBus SCADA to share real-time well pressure, valve position, sand trap emptying, and valve integrity information. Our remote monitoring feature allows you to monitor your equipment from anywhere.

Automatic operation with preset limits in four modes:
1. Differential pressure measured at the sand trap inlet and outlet
2. Pressure at the sand trap inlet
3. Periodic emptying intervals
4. Safety shut-off with detection of faults not related to the system

Remote operations for all functions.

Manual operations in the field using a two-button interface for added safety.

Required maintenance is reduced by opening and closing valves sequentially. This process preserves the critical safety barrier plug valves by using a atent-pending technology that utilizes a calibrated flow control valve as the sacrificial component. The valve piping prevents erosion of the main control valve components by restricting flow while the main control valves are operating, allowing sand-laden fluid to discharge through the valves when they are fully open.

SPECS	
Base	72” x 48”
Height	72”
Weight	1850 lb
Hydraulic connection	5 x 3/8” Tube
Electrical connection	1 x 1-1/2 NPT Female
Hydraulic output pressure	300 to 3.000 PSI (1 a 207 bar)
Oil volume	1 gal (3.8 lt)
Temperature	0°C to 50°C
Electrical energy required	14 to 72 VDC
Communications	Modbus TCP/IP
Measurement accuracy	+/- 1%
Response time	1 second
Memory capacity	1000 events

To buy or for more information, please contact us:

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