LIMESMARTMISSILE

LIME INSTRUMENTS

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LIMESMARTMISSLE is a smart manifold system that accurately monitors the fluid flow between a blender and the pumps on a pressure pumping job.

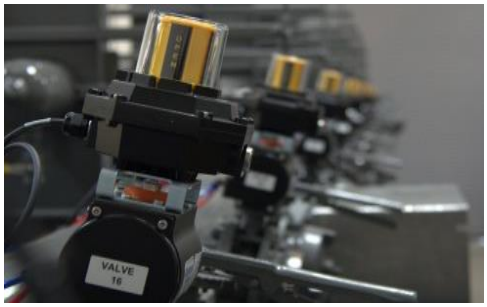
- Able to report flow conditions such as cavitation, sand slugs, iron failures, sanding off, dead heading.
- Suction valve automation and feedback.
- Identification of pump location on the manifold.
- Pump communications cabled directly to the LIMESMARTMISSLE reduces the amount of required pump cables on a job site.
- Standard Ethernet and CAN bus communications for easy integration with control systems.

Patent Pending

LIME INSTRUMENTS

LIMESMARTMISSILE REAL-TIME FLUID MONITORING

The LIMESMARTMISSLE system integrates with your equipment to provide real-time flow measurements between the blender and pumps which enables operators to improve operational efficiencies, equipment maintenance, and worker safety.



General Specs	
Operating Temp	-40 C to +70 C
DAS Box Enclosure	Stainless Steel
Available Options	
Base DAS Package	2 x 15k PSI transducers 4 x 300 PSI transducers 4 x 8” magnetic flow meters
Advanced Monitoring and Analytics	4” suction side magnetic flow meters at each pump
Valve Control	Air actuated valve control from inside van (8,10,12,16, & 20 station)
Manifold Pump Connection Network Box	Pump communication bulkheads and network box move from the van to the manifold and communicate with van through redundant cables to eliminate extra cables on location

Flow Management – Fluid End Protection

- Data van pump operator is able to detect flow problems between blender and pumps in real time
- Detectable flow problems: cavitation, sand slugs, iron failure, sanding off, dead heading, etc.
- Reports flow conditions at multiple locations on the manifold

Safety

- Remote operation of the suction valve in the event that a pump needs to be shut in
- Improved safety by removing the need to send personnel into the high pressure zone
- Helps prevent fluid spills

Valve Protection

- Interlocks prevent pumping into a closed or partially closed discharge valve
- Reduces damaged iron due to pumping into closed valve
- Reduces the risk of washing out valves

Improved Spread Performance

- Pump efficiency tracking – reduce maintenance cost and improved stage performance
- Improved head loss calculations for better pump protection in low supply situations
- Measured fluid totals produce more accurate downhole delivery without relying on calculations
- Automatic pump importing at their proper position on the manifold
- Reduced length of comms cables and better cable management with pumps connecting directly to the manifold






BUILDING LEADING-EDGE CONTROLS AND INSTRUMENTATION SYSTEMS

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