

## Schroeder Industries Applies Fluid Monitoring for Drill Rig Piston Pump

### Background

A customer of Schroeder Industries was experiencing failures in their Drill Rig Piston Pump while being used in the field. It was later determined that the failures were caused by fluid contamination.

The customer was aware that 80% of failures in equipment are caused by fluid contamination, but never had the equipment to measure the fluid contamination in their system. Besides the pressure compensated piston pumps, the equipment has several servo valves in the system that are dirt sensitive, thus causing downtime and consequent loss of production when dirt enters the system.



### Solution

Since downtime and consequent loss of production occurs when dirt enters the system, it became crucial to implement contamination monitoring in each pump.

An in-line TCM on a Manifold was then installed. This sent a signal to the operator cabin prior to when contamination levels become a problem and could cause systematic damage.



**TestMate® Contamination Monitor (TCM)**  
 with optional TestMate® Water Sensor (TWS)

### Specifications

**Type of Machinery:** Drill Rig Piston Pump

**Fluids Addressed:** Oil

**Schroeder Product:** TCM, TWS

### Results

By monitoring the contamination in the fluid and performing preventative maintenance, the customer was able to save approximately \$40,000 per failure (total includes parts, labor and downtime).

### Additional Benefits

- Continuous monitoring of fluid ISO code allows for early warning if damage occurs and for preventative maintenance of the equipment
- TCM can be programmed with a Benchmark ISO code. When the programmed ISO code is reached five (5) times in a row, the TCM outputs a signal that can be used as a preventative warning or to shut down equipment.

**Schroeder**  
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