

Industry: Minerals Processing

- Corrosive Slurry

SONARtrac[®] SOLUTIONS

Metals Processing Plant Improves Up-Time and Lowers Costs with SONARtrac Flowmeters

Benefits

- Rapid return-on-investment demonstrated with clamp-on SONARtrac flowmeters versus existing magnetic meters
- SONARtrac flowmeters provide accurate, repeatable flow measurement through Teflon lined pipe
- Clamp-on installation enables installation without process down-time
- Eliminates risk of leakage associated with flanged in flowmeters resulting in safety and environmental benefits

SONARtrac flowmeters clamp on to the existing pipeline and deliver accuracy comparable to magnetic flowmeters.

Process

The metallurgical processing industry frequently employs processes using acidic solutions at elevated temperatures. These processes often involve Teflon or rubber lined pipes to prevent corrosion and leakage. Accurate, repeatable flow measurement is necessary to blend the appropriate amount of raw material and reactive chemical in order to achieve high-quality end product and reduce material waste.

Challenge

The typical method for measuring volumetric flow in metallurgical processing is magnetic flowmeters. One customer's process involves flowing acid at elevated temperatures mixed with suspended metal solids.

The corrosive nature of the high temperature acid causes the magnetic flowmeters to corrode and eventually leak, even Teflon lined mag meters with specially coated electrodes.

The customer's preventive maintenance practices involve scheduled replacement of the magnetic meters, in order to reduce the possibility of leakage from the magnetic meters. Leaks in the process require production shut-down and implementation of environmental health and safety procedures.



SONARtrac Solution

The customer has replaced magnetic flowmeters with SONARtrac flowmeters. The SONARtrac flowmeters clamp on to the existing Teflon lined pipes and have no wetted parts, which maintains the full integrity of the piping system and eliminates the possibility of leakage associated with flow metering. In addition, the SONARtrac flowmeters have delivered improved accuracy versus the existing magnetic meters.

The customer's investment in SONARtrac flowmeters is expected to deliver a better than 2 year payback on the basis of hardware cost comparison alone. This does not include the expected financial and operational benefits associated with increased production up-time.