



CASE STUDY

Successful application
of the SDM ECO in the
tailings thickener
underflow

CASE STUDY - GRUPO MEXICO

Introduction

Grupo Mexico's mining plant in Charcas, Mexico is mining and processing copper, lead, and zinc ore. The primary objective for applying the Rhosonics SDM ECO is to regulate the slurry density in the underflow of a tailings thickener. Accurate density measurements are needed to evaluate and improve the pumping performance.

Challenges

The challenge was to test the SDM ECO capabilities and accuracy when reading both water and slurry in continuation. The installation of the SDM ECO is at the thickener underflow whereby the process is driven by a piston pump and the slurry is directed to a tailings dam.

Measuring task

Measure the slurry density accurately in real-time. The density meter is combined with a flow meter for mass flow calculations.



Instrument used

The clamp-in process integration system is used for installation onto the existing 8-inch pipe. The sensor is positioned at a 39° angle from the bottom of the horizontal pipe, approximately 6 meters away from the pump.

Our solution

A key component of the thickening process is to understand the density of the slurry in the underflow. The Rhosonics SDM ECO has proven to provide real-time density readings in the tailings slurry through the use of ultrasonic measuring technology.



Results

The SDM ECO system was properly installed and tested to read water and slurry accurately. Throughout the performance period, the SDM consistently demonstrated reliability and accuracy in its measurements, transitioning back to reading water after the slurry was pumped.

For further information

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