

Hot tap retrofitting in a copper mine with SITRANS F US ultrasonic flowmeters

Case Study · November 1999



mining

Hot tap retrofitting in the biggest copper mine in the world with the Siemens Instrumentation SITRANS F US ultrasonic flowmeter.

SIEMENS

Hot tap retrofitting in a copper mine with SITRANS F US ultrasonic flowmeters

LA ESCONDIDA is the biggest copper mine in the world. The owners are BHP, RTZ, Mitsubishi.

The mine is located in the north of Chile, close to Antofagasta, at 3100 meters altitude.

The process

The copper mining process requests much water which is supplied through big pipes. Most of the pipes range from DN 600 to DN 1200 (24" to 48").

In this specific case, the customer was very concerned because the electromagnetic flowmeters supplied by his previous supplier were not operating satisfactorily. The water in this region contains "argil" (sticky clay) which leads the bad characteristic to stick to the electrodes.

The process does not allow for the water flow to be interrupted when cleaning the electrodes, and clamp on systems cannot be used as the pipes have an internal rubber coating. Siemens offered the customer our SONOKIT system.

The system was to be installed using HOT TAP tools so that it would not be necessary to cut the water flow.

The challenge

The first installation made by Siemens Flow Instruments was on a DN 900 (36") pipe.

The application was difficult to handle when bearing in mind the altitude and windy region which makes things even more difficult. Furthermore, the pipe was under pressure and about 6 meters above ground, and working in a mine you need to follow a strict set of security rules. However, Siemens Flow Instruments in Chile were fit to meet these challenges!



The Solution

Siemens Flow Instruments team of experts in Chile came up with a very successful solution.

The whole procedure including calibration and commissioning was done by Siemens Flow Instruments.

LA ESCONDIDA is very satisfied with the solution for this very difficult HOT TAP application in the mining industry.

LA ESCONDIDA is interested in continuing the business relationship with Siemens Flow Instruments. We have the knowledge. Our staff of experts offer support at the same time sharing their expertise with neighbouring countries in South America in which there is a market for similar applications.

LA ESCONDIDA has later installed several more SONOKIT type of flowmeters.

