Pickling tank level measurement at an Indian, multi-national, steel-making company

LLT100 application success

LLT100 laser transmitter laser technology was used successfully in the level measurement of pickling tanks.

Measurement made easy

Introduction
Pickling is a very popular industrial process where metals are submerged in a bathing liquid to remove imperfections or rust from their surface. Level measurement is often needed to monitor the level of the bathing liquid in the tanks.

Challenge
In an application at a steel making company, external chambers were used to measure the level of liquid in pickling tanks. An open-path radar was initially used as the level measurement technology. However, due to the narrow pipe dimensions (approximately 3 inches in diameter) of the external chamber, several problems were reported:

- Low level detection was not possible because of the high beam angle of the radar level transmitter.
- As the environment condition was highly corrosive, all existing transmitters were corroded because of their aluminum housing design.
**ABB solution**

ABB’s dedicated customer approach was a determining factor to win this opportunity. First, a detailed presentation of our LLT100 laser transmitter was provided to the customer with key advantages like narrow beam angle, HALAR coated flange and housing in 316 stainless steel for corrosion resistance, and ease-of-use.

Second, an on-site demonstration was organized to show how the LLT100 could meet the application requirements and to explain how to setup and use the product (device parameter configurations, menu options, etc.).

The LLT100 could meet another important customer requirement, which was to avoid any modifications to the tank configuration and pickling process.

**Conclusion**

The pickling process in this steel industry site now operates at optimal efficiency. The LLT100 can measure to bottom level accurately. The customer has realized that the LLT100 offers easy installation and configuration. The ABB laser has been offered with stainless steel housing and HALAR coated flange eliminating all problems related to corrosion in this harsh environment.

Since the first installation, the customer has purchased additional LLT100 laser level transmitters for similar uses.