

# Dependable Level Measurement in a Liquid Propylene Tank

## RESULTS

- Reduced maintenance with better stability and reduced fouling
- Removable electronics and process seal reduced downtime
- Reduced number of false readings, even while coated



## APPLICATION

Liquid propylene tank

**Application Characteristics:** Pressurized propylene tanks; interruption-free measurement

## CUSTOMER

Plastics Factory

## CHALLENGE

In this application, it is vital that the level measurement works without interruption since the pressurized tanks are only taken out of service every three to five years. Earlier contacting technologies proved unreliable and required maintenance as they would often foul and cause erroneous readings which could lead to costly overfill situations. In addition, it is critical for the production group to know what available propylene stock is on-site for production mixing.

## SOLUTION

Rosemount 5600 Radar Level Transmitters were installed in these production propylene tanks which delivered the tank level values with 4-20 mA signals. These inputs are transmitted to the control room where the measurements are then converted to volume. When the tanks are filled, the measured volume is compared to the weight of the rail tankers, double checking the values and ensuring performance.

The decision to use the Rosemount 5600 has improved reliability and accuracy, and enabled removal of the electronics without taking the vessel out of service. Another advantage to using the 5600 in these situations was that it was easier to install over previous technologies. By using these instruments, no modifications to the vessels were required, thus lowering maintenance costs through saved time and infrastructure customization.



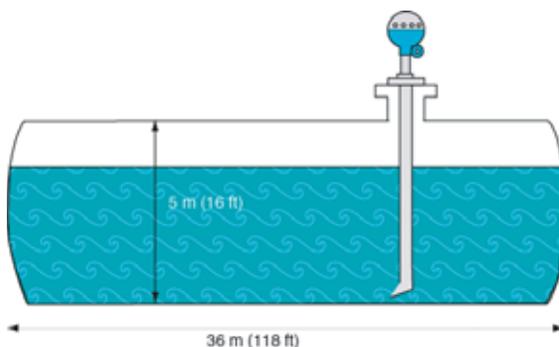
*The Rosemount 5600 Radar Level transmitter is mounted on the flange on the tank roof.*

**Installation and Configuration**

The 5600 level transmitter is directly mounted on the existing tank nozzle with a stainless steel pipe and flange which is commonly in place. This transmitter allows for wide installation flexibility. In this application, a two inch stilling well was mounted inside a six inch nozzle. The 5600 was supplied with a six inch flange and a two inch antenna.

Once the transmitter was mounted, initial setup was conducted using a HART® modem and a laptop computer in the control room. No additional tuning was required after the initial setup. This made the measurement point very easy to install, and also saved maintenance time and costs.

*The decision to use the Rosemount 5600 has improved reliability and accuracy, and enabled removal of the electronics without taking the vessel out of service.*



*Plastic factory liquid propylene stored in a bullet-shaped tank.*

**RESOURCES**

**Rosemount 5600**

<http://www.emersonprocess.com/rosemount/products/level/m5600.html>

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