



# Chemical plant standardizes on Siemens Radar Level Transmitter

## Situation

A chemical plant on the East Coast of the United States is a global supplier and manufacturer of polymers, monomers, and other specialty chemicals used to make many products like inks, electronics, golf balls, flooring, rubber hoses, printed circuit boards, wire and cable coverings, eyeglasses, etc.

## Challenge

The company needed a reliable and consistent level transmitter to measure the levels of solvents, Toulene, and Heptane in a tank farm. This information helps them to determine inventory amounts for product distribution to tank trucks. The output is used for inventory and process control. In addition, the level measurements are used to protect against dangerous overflow conditions and empty tanks.

Previous competitive instruments and technologies did not produce the reliability, consistency, and ease-of-use that the customer was looking for.

## Solution

After a presentation by the local Siemens sales partner, the customer decided to install a Siemens SITRANS LR250 radar level transmitter on each tank in their tank farm (50 instruments). The level transmitters are mounted in various configurations on the tanks.

The customer wanted to use just one level instrument type for all the tanks so that it would be easier for their technicians to work with and program. The SITRANS LR250 transmitter's non-contact radar technology also requires less maintenance than other competitive products that they were considering.

## Benefits

Key factors in choosing Siemens included:

- *Cost Savings:* one product for all tanks
- *Time Savings:* quick and easy to program
- *Quality of instrument:* robust construction and consistent reliability
- *Easier to use:* technicians found the Siemens instrument easy to set up and install
- *Customer Service provided:* Siemens provided excellent on-site training

## Process Instrumentation

Answers for industry.

**SIEMENS**



The SITRANS LR250 instrument is a 2-wire, 25 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels, including high temperature and pressure, to a range of 20 m (66 ft). It includes a graphical Local User Interface (LUI) that improves setup and operation by including an intuitive Quick Start Wizard and echo profile displays for diagnostic support. Startup is easy using the Quick Start wizard with a just few parameters required for basic operation. The 25 GHz frequency creates a narrow, focused beam allowing for smaller horn options and decreasing sensitivity to obstructions.

The SITRANS LR250 transmitter's unique design allows safe and simple programming, using the Intrinsically Safe handheld programmer without having to open the instrument's lid. It is reliable on low dielectric media, and in small vessels, as well as tall and narrow vessels.

Key Applications include liquid bulk storage tanks, process vessels with agitators, vaporous liquids, high temperatures, and low dielectric media.

#### Features

- Graphical LUI makes operation simple with plug-and-play setup using the intuitive Quick Start Wizard
- LUI displays echo profiles for diagnostic support
- 25 GHz high frequency allows for small horn antennas for easy mounting in nozzles
- Insensitive to mounting location and obstructions, and less sensitive to nozzle interference
- Short blanking distance for improved minimum measuring range to 50 mm (2") from the end of the horn
- Communication using HART® or PROFIBUS PA

- Process Intelligence signal processing for improved measurement reliability and Auto False-Echo Suppression of fixed obstructions
- Programming using infrared Intrinsically Safe handheld programmer or SIMATIC PDM



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