



# How do I Know the Rosemount 5408 is a Good Fit for Reactor Applications?

*Non-contacting radar handles many challenging applications including changing fluid characteristics (density, dielectric, conductivity, viscosity) and wide variations in pressure and temperature. The midrange 26 GHz frequency is optimal for typical process level application challenges including condensation, turbulence, nozzles, product build-up, foaming and agitators.*

The Rosemount 5408 Level Transmitter offers:

- Broad range of connections
- Wide pressure and temperature limits
- Long measuring range
- No dielectric limits
- HART® Protocol
- SIL2 Certified



## CHALLENGES IN REACTOR APPLICATIONS

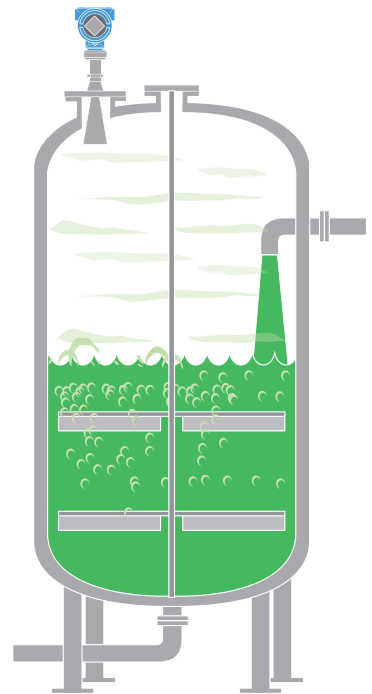
Process fluid in reactors often changes in density, dielectric, temperature and conductivity. Both fluid reactions and agitation can create a turbulent surface, foam, and vapors. Depending on the reaction, the pressure can change from full vacuum to high pressure.

## THE ADVANTAGE OF RADAR

Since radar level transmitters measure the top of the surface, changes below the surface have no impact on level measurement accuracy. Radar is not impacted by changing pressure; it can be used from full vacuum to high pressure with no effect on performance and can handle the vapors and condensation commonly found in reactors.

## ROSEMOUNT 5408 ADVANTAGES

- Turbulence and foam caused by agitation and reactions can impact the signal return on some radar level transmitters. The powerful FMCW signal of the Rosemount 5408 provides 30 times more sensitivity than pulsed radars, to detect the level surface in turbulent conditions including vapors and foam.
- The transmitter is able to view the full tank and detect and track a moving surface using its advanced signal processing.
- The intuitive guided set-up makes it easy to map out agitator blades and verify the correct level.
- The greater resolution provided by FMCW allows the Rosemount 5408 to discern the surface from the blades.
- The unique wave guide design provides a wide range of pressure and temperature selection without wetted O-rings.
- Signal Quality Metric diagnostics detect abnormal process conditions such as a dirty antenna or foam, enabling preventative actions to be scheduled and avoiding process upsets or shutdowns.



For further information please visit  
[www.Emerson.com/Rosemount/5408](http://www.Emerson.com/Rosemount/5408)




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