

# California Olive Ranch Accurately Tracks Inventory with Guided Wave Radar and Coriolis Technologies

## RESULTS

- Accurate inventory management and measurement of Work in Progress (WIP)
- Reduced maintenance cost by avoiding mechanical devices
- Reduced operating cost by saving on required manpower needed for manual readings



## APPLICATION

Olive Oil Tank Storage

## APPLICATION CHARACTERISTICS

Olive Oil, low dielectric fluid, very large tanks 51.8 ft. (15.8 m) height

## CUSTOMER

California Olive Ranch

## CHALLENGE

California Olive Ranch is a large producer of olive oil in the US. Its facility located in northern California needed an accurate and independent method of measuring inventory for their newly built oil storage tanks. They wanted a solution that would minimize labor, allow for accurate measurement of the product during all stages of processing, be food grade and work with their clean in place (CIP) process.

Their personnel had previous experience with mechanical devices and sight glasses which necessitated making rounds to the individual tanks. These devices also required maintenance, incurring additional resources of time and money. They also had previous experience with differential pressure transmitters for gross measurement, but desired an increased level of accuracy for their new process.

California Olive Ranch had already installed Micro Motion meters on the raw material feed to the production area. These Coriolis meters provide a very accurate mass measurement of the product as well as a precise measurement of the density of product flowing through the meter. These meters allowed tracking of the mass of product coming into the process. Now they needed to know the amount of liquid in their tanks to continue tracking their product.

*The Rosemount 5302 Guided Wave Radar provides very accurate measurements enabling reliable inventory tracking while meeting California Olive Ranch's food safety requirements.*



*California Olive Ranch is a large producer of olive oil in the US, located in northern California.*

For more information:  
[www.rosemount.com](http://www.rosemount.com); [www.micromotion.com](http://www.micromotion.com)

Without a reliable means to measure the inventory in their storage tanks, California Olive Ranch could be wasting resources and would not be able to track their WIP. In addition, the use of mechanical devices would increase maintenance costs. And the personnel required to make rounds for inventory tracking would increase operations costs.

### SOLUTION

Rosemount Guided Wave Radar was installed on California Olive Ranch's newly constructed olive oil storage tanks. The Rosemount 5302s accurately tracked the volume of oil in the tank using the level measurement. Furthermore, using them in conjunction with the already installed Micro Motion meters provided an accurate and independent validation of the inventory for both operations and accounting. The results from the two technologies are repeatable and are accurate to within 0.067%. As an example, on a 48,000 gallon tank with a diameter of about 150 inches (381 cm) and height of 52.29 ft. (15.94 m), the guided wave radar and the Micro Motion meters would be within 32.16 gallons (121.74 L) or 0.42 inches (10.7 mm) of one another. The measurement from the Rosemount 5302s tracks so closely with the Micro Motion meters that the facility can use the two technologies independently should the need arise.

The Teflon coated probes of the Rosemount 5302s fit into the facility's clean in place (CIP) process and meet food grade requirements because of their smooth surface, avoiding contamination compared with a stainless steel stranded guided wave radar flexible probe. California Olive Ranch is able to keep accurate measurements of the WIP (Work in Progress), their inventory and their production volume. Additionally, the maintenance requirements and costs are reduced compared to the previous devices that they were familiar with using.

### RESOURCES

#### Emerson Process Management Food & Beverage Industry

<http://www2.emersonprocess.com/en-us/plantweb/customerproven/pages/FoodBeverage.aspx>

#### Rosemount 5300 Series Guided Wave Radar

<http://www2.emersonprocess.com/en-US/brands/rosemount/Level/Guided-Wave-Radar/5300-Series/Pages/index.aspx>

#### Micro Motion ELITE Coriolis meters

<http://www2.emersonprocess.com/en-US/brands/micromotion/coriolis-flow-density-meters/ELITE/Pages/index.aspx>

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*A Rosemount 5302 Guided Wave Radar accurately tracks volume of olive oil using level measurement.*



*Micro Motion CMF200 meter allows tracking of the mass of product into the process.*

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