

Cask Leak Detection Minimizes Maturation Losses

Process Overview

In today's highly competitive distilling industry, producers must continually strive to improve production throughput, reduce maturation losses and assure product quality.

Identifying leaking casks before they enter the filling cycle is critical to reducing downtime, minimizing maturation losses and proactively improving the supply chain now and into the future. However, traditional pressure or water-based leak detection systems lack the high resolution sensing and speed to detect microleaks and ensure safety.

Process Challenges

Leaking product directly affects your bottom line and can cause safety concerns and/or process rework. As a distilled beverage producer, you are challenged with:

- Reducing maturation losses beyond the angel's share
- Ensuring the highest level of quality control
- Optimizing the management of casks and improving the supply chain
- Minimizing downtime associated with leaking casks

The Emerson Solution

Emerson's Rosemount™ CT4215 Packaging Leak Detection System enables highly sensitive integrity testing of casks prior to filling and provides both manual and semi-automated leak detection depending on the application requirements.



The system uses Quantum Cascade Laser (QCL) technology to detect microleaks in real time. With its small footprint, solid state technology and intuitive software, you will reduce operational costs and gain visibility into production analytics to ensure process and product quality control. Typical applications include:

Products	Packaging Type	Gases
Distilled Spirits, Wine, Beer	Casks, Bottles, Pouches, Kegs	Ethanol, CO ₂



Efficiency

Reduce downtime from spillages and post-filling leaks

Filling only verified casks will ensure optimum process



Productivity

Gain insight into production line performance and cask suppliers

Process control allows feedback in cask supply chain



Quality

Improve supply chain by identifying defective casks

Detect cracks, perforations and defective joints



Profitability

Reduce costly product losses and waste

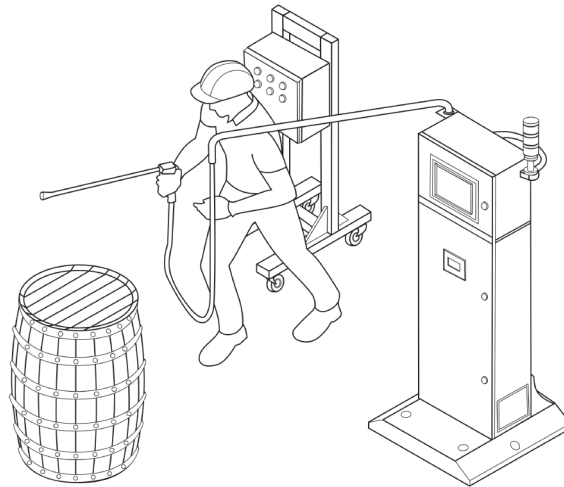
Cask inspection prior to filling ensures no leaks during maturation

Easy Integration & Operation





The Rosemount CT4215 is designed for easy installation and configuration into any production area. Whether standalone for manual inspection, or integrated into a larger cask-handling system, the system's flexible design easily fits the needs of a wide variety of distillery applications. Designed to run with minimal user interface, the Rosemount CT4215 system provides a simple alarm when a cask leak is identified.

Features	Benefits
Patented QCL Technology	Identify defects with fast, sensitive and repeatable quantum cascade laser measurement
Small Footprint	Easy installation and compact design compared to pressure or water systems
Automated Detection	Replaces traditional water or pressure testing to improve safety
Full Data Logging Capability	Monitor and record production data at-a-glance with user-friendly software
Modular by Design	Support easy servicing and system upgrades
Process Control	Improve the supply chain by checking casks prior to filling
Low Lifetime Cost	Minimal consumables, no user calibration required, solid state technology

Figure 1- Typical Cask Testing Using the Rosemount CT4215



[Emerson.com/RosemountCT4215](https://www.emerson.com/RosemountCT4215)

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