

Case study

Brewery Fermentation Tanks



SAFETY

The Ca-Zoom HD removed the necessity for confined space entry and eliminated the need to erect scaffolding and work at height for the inspector



DATA QUALITY

High-definition imaging enables inspectors to detect defects and deliver precise information. Data collection with the Ca-Zoom significantly enhances traditional RVI methods



SAVINGS

Reduced administrative efforts for tank opening, entry permits, and scaffolding erection, ultimately minimizing downtime and process costs

Client Expectations

The customer sought a safer, cost-effective method for inspecting their stainless-steel fermentation tanks, aiming to perform the inspection using only a small nozzle located on the top side of the tank.

Previous inspections required human entry via the manhole on the bottom side into the tank and the erection of massive scaffolding.

To address these challenges, the customer engaged the Waygate Team for a Proof of Concept on one tank, aiming to establish a new, safer inspection standard that eliminated confined space entry while enhancing data accuracy and overall efficiency.

Our Solution

The Ca-Zoom HD system integrated advanced technologies to enable safe, efficient inspections of confined spaces. Its full HD camera, featuring 30x optical zoom, was mounted on extendable fiber poles and deployed through a 3 inch nozzle. Combined with the camera's Pan-Tilt functionality, this setup allowed inspectors to access all critical areas within the tank, including welds, spray ball and nozzles. Additionally, the customer sought a general overview of cleanliness. An alternative for higher assets would be to lower the camera using the cable.

The Outcome

The primary goal of the fermentation tank inspection was to assess overall asset integrity and identify potential defects that could pose immediate risks. Additionally, the customer wanted to determine whether data from the Ca-Zoom would be sufficient for routine preventative maintenance via the small 3-inch op nozzle to safe process downtime of the tank.

Waygate successfully delivered these results. The combination of extended fiber poles and the small form factor of the PTZ HD10 allowed for a comprehensive inspection using a single configuration. The entire process, including system setup, was completed in under an hour, with all necessary perspectives and areas easily assessed.

The client confirmed that Waygate's systems provide a viable alternative to traditional confined space entry. By utilizing the Ca-Zoom, inspectors remained safely outside hazardous areas, reducing risk while also saving time and costs. This solution not only improves efficiency but also enhances workplace safety, reinforcing the value of remote inspection technology.

