



## Metal Fabrication Facility | Flowline EchoBeam®

### Reliable Level Measurement for a Wet Scrubber System

#### The Challenge:

A metal fabrication facility manufactures galvanised steel HVAC ducting and enclosures through cutting, bending, grinding, assembling, and welding operations. These processes release hazardous gases, particulates, and dust that must be extracted to maintain safe working conditions.

To manage air quality, the facility relies on a wet scrubber system, where contaminated air is drawn through water to capture and remove dust, particulates, and harmful gases before the clean air is released.

For the scrubber to function effectively, a consistent water level must be maintained in the sump. However, the existing level measurement device - a high/low float switch - proved unreliable.

Due to coating, vapour, and contaminated water, the float switch clogged regularly, requiring monthly maintenance. The inconsistent level signal made dependable fill valve control difficult and increased the risk of scrubber downtime.

As the instrumentation technician noted:

*"A scrubber doesn't scrub without water. We needed a level signal we could trust."*

For more information on protecting your business from leaks, please get in touch with our Safety Equipment Specialist, Gary Hand, by calling 01 461 4338 or email [gary.hand@modernplant.ie](mailto:gary.hand@modernplant.ie)



## The Solution:

Flowline recommended replacing the float switch with the EchoBeam® radar level sensor, a non-contact solution designed for harsh industrial environments.

Unlike contact-based devices, EchoBeam® measures the level without touching the process media. This eliminates common failure points caused by buildup, coating, and vapour. The sensor's zero deadband ensures accurate low-level measurement, which is critical for maintaining proper sump levels and reliable fill valve control.



## The Results:

Since installing the EchoBeam® radar sensor, the facility has achieved:

- Consistent and reliable sump level measurement
- Elimination of monthly float switch clogging
- Reduced maintenance intervention
- Improved reliability of the wet scrubber system

The solution provides dependable performance in a demanding application, supporting both operational efficiency and workplace safety.



## Why EchoBeam®?

Flowline EchoBeam® radar sensors are purpose-built for applications where traditional level technologies struggle. By combining non-contact measurement with robust radar performance, EchoBeam® delivers accurate, repeatable results even in harsh environments or environments with vapour, coating, and process contamination.

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