



RELIABLE FLOW MONITORING FOR MOBILE IRRIGATION AND DOSING STATIONS

BACKGROUND

Our friends, 4i Water Services, recently developed a mobile solution to support arable farming by equipping a lorry trailer with two irrigation and chemical dosing stations on skids. This setup allows water and nutrients to be delivered precisely where needed across key farmland, improving efficiency and flexibility for agricultural operations.



CHALLENGE

The application required a robust and accurate flow measurement solution that could perform reliably in mobile and variable conditions. Farmers and suppliers alike needed dependable data to ensure correct dosing and water delivery, while the system also had to integrate seamlessly with existing farm processes and control systems.

SOLUTION

To meet these needs, the trailer was fitted with Siemens SITRANS F MAGFLO 5100W compact magnetic flowmeters. Renowned as an industry staple, the MAGFLO 5100W combines reliability and consistency with a wide range of certification approvals, including WRAS, MCERTS, FM Fire Water, and custody transfer.



The meters provide multiple power options (24 VDC or 110/240 VAC) and flexible outputs including 4–20 mA, pulse, HART, ProfiBUS PA & DP, MODBUS RTU, and Foundation FieldBUS, making them versatile and easy to integrate. With these features, the MAGFLO 5100W ensures accurate monitoring of water and chemical dosing under mobile conditions.

RESULT

The completed solution gives the farmer and supplier reliable, real-time flow data, ensuring accurate irrigation and dosing in the field. By combining 4i Water Services' mobile station expertise with Siemens' proven MAGFLO technology, the project has delivered a flexible, dependable, and future-proof solution for modern agriculture.

