



COMPLETE WEIGHING SOLUTION FOR A QUARRY OPERATION

BACKGROUND

Process Instrument Services were contracted to supply, install and commission a complete weighing solution for a quarry operation. The project involved the installation of two Siemens Milltronics MCS in-line belt weighers, each paired with BW500 transmitter/totalisers and TASS on-belt speed sensors, to ensure reliable and accurate load monitoring for quarry aggregates.

CHALLENGE

The customer required a system that could accurately measure aggregate flow rates and provide real-time information to support lorry loading operations.

This meant adapting the existing conveyor systems to accommodate the new equipment while ensuring proper alignment and performance. The project also needed to be integrated with the site's SCADA system, and all of this had to be delivered within strict time and budget constraints while working in challenging Welsh weather conditions.

SOLUTION

Our team managed both the mechanical and electrical aspects of the installation. The conveyors were modified to guarantee the correct fit and function of the MCS weighers, and cabling, tray, and containment were installed to connect the BW500 signal integrator and transmitter.

The BW500 was configured to provide local readouts including continuous weight in tonnes per hour, a running totaliser, and a resettable daily totaliser. In addition, a 4–20mA analogue signal was routed back to a local termination hub, allowing the system to feed directly into the plant's SCADA network for accurate, real-time operational data.





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RESULT

The project was delivered successfully on time and within budget, despite the difficult weather conditions.

The customer now benefits from a reliable and accurate weighing system that integrates seamlessly with their SCADA platform, enabling efficient and precise lorry loading of quarry aggregates.

By combining Siemens' proven technology with our team's expertise, the installation provides a durable and effective solution to support the site's ongoing operations.

EQUIPMENT SUPPLIED

Siemens Milltronics MCS Belt Scales

Siemens Milltronics MCS is a compact, rugged, modular, heavy-duty belt scale for use in mobile crushers and aggregate screening plants.



Siemens Milltronics BW500 and BW500/L Belt Scale Intergrator

Belt load and speed signals are processed for accurate flow rate and totalised weight of bulk solids.



Siemens Milltronics TASS Speed Sensor

Siemens Milltronics TASS is a compact low-profile, wheel-driven return belt speed sensor, ideal for use on mobile crushers and in constricted spaces.



Craig Hamman
Technical Director

