

Accurate Weighing

Tynes Tees Crushing & Screening take delivery of the UK's first FXM belt weigher from Precia-Molen

Part of the Tyne Tees Demolition Group (TTDG), Tyne Tees Crushing & Screening (TTCS) operate a fleet of mobile crushing and screening machines, supplying high-quality recycled aggregates to a national customer base. TTDG are a multi-discipline company specializing in demolition, site clearance, licensed asbestos removal, recycling and waste management, with subsidiary TTCS carrying out their in-house and contract work for recycled and quarry products.

To further improve their operations, TTCS have recently acquired a Precia-Molen FXM belt weigher which has been fitted to an Extec Mobile crusher to provide a versatile and accurate solution for weighing products on an on-board stockpile conveyor. The belt weigher is the first FXM scale to be fitted in the UK by Precia-Molen.

Les White, sales and marketing manager, commented: 'Following the purchase of this range from Nordic Bulk A/S, we have integrated all the products into the Precia-Molen portfolio and can now supply a wide range of dynamic weighing solutions, including on-board belt weighers with an accuracy between ± 0.5 -1.0%, to suit all types of crushers, either mobile or static, in the quarrying, recycling and demolition industries.'

Precise weighing in production is an important priority for TTCS, as accuracy needs to be constant throughout the daily duties of the machine. The FXM belt weigher was chosen for its automatic recalibration, providing effective and accurate weighing when required. The scale is essentially a weighing frame with a single idler station utilized in integrating belt scales designed for production weighing applications. It comprises two adjustable-height weighing units with integral load-cells and special rollers to accommodate an extremely low build-in height.

Suitable for use in mobile crushing and screening equipment, the FXM scale features a compact assembly with separate adjusting systems for height and trough angle to accommodate the belt conveyor. The compact assembly unit provides quick and easy installation and is suitable for 400-1,800mm wide belt conveyors with speeds up to 2m/s and a maximum throughput of 2,000 tonnes/h.

The Precia-Molen FXM scale allows the operator to view the current speed of the belt, which is vital when there is only a fixed-period window to discharge. The belt speed, therefore, can be increased to suit the flow of products. According to Precia-Molen, other



TTCS's FXM belt weigher is connected to this on-board 1400 programmable indicator

systems currently available have fixed belt speeds and actual tonnage throughput cannot be viewed until after the operation.

The FXM belt weigher for TTCS is connected to an on-board I400 programmable indicator, which is built around the CANopen industrial communication system and features the following components:

- A weight transmitter located near the weight sensor that ensures the immediate digitalization of the signal avoiding any electromagnetic disturbances.
- A graphic terminal connected to one or several transmitters.
- A communication device to field buses such as DeviceNet, Profibus and Ethernet (TCP/IP).

Additional features include: I/O connections; RS 232, RS422/485 and USB ports; 4-20mA analogue outputs; and USB key for data storage and product traceability. The I400 programmable indicator also allows the integration of all CANopen-compatible components or equipment, remote I/Os, frequency inverters and servo valves.

The metrological performance of the 1400 unit complies with the most stringent industrial processes in terms of speed, multi-range capabilities and

signal-filtering performance. It can also be installed within ATEX hazardous areas with connection to some peripherals located outside the hazardous areas.

Andrew Verity, head of TTCS, commented: 'We are very happy with the FXM; with its weighing accuracy we now know the amount of product we process each day which allows us to accurately determine the production rates we are achieving for our customers.'

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The belt weigher mounted on the stockpile conveyor

