



A Milltronics MSI belt scale system tallies up the daily production rates of aggregate crushed by the Hartl Crushtek International Ltd. Mobile Crusher at Severn Trent's demolished Kidderminster Wastewater Plant.

Hartl Crushtek Chooses a Belt Scale Tough Enough for the Mobile Crusher

Challenge

Hartl Crushtek International Limited, a mobile crushing plant manufacturer based at Coalville in Leicestershire, England, supplies mobile plants for the severest of environments. A rubble recycling project at a demolished wastewater plant in Kidderminster in Worcestershire was, therefore, all in a day's work for the Hartl Powertrack mobile crusher.

The Hartl Powertrack gives the operator a good deal of mobility and flexibility on site, easy loading and feeding, and a large aggregate production capacity of up to 600 tonnes per hour.

The crusher's continuous movement on site and extreme vibration are demanding operating conditions for measurement equipment. Hartl's high performance expectations require that any scale or instrument fitted to a mobile crusher must operate reliably and with excellent repeatability even under these rigorous conditions.

Solution

Fred Shroeder, Contracts Manager at Hartl Crushtek's UK plant, explains his requirements for specifying a belt scale standard for Hartl mobile crushers. "The scale should be solid but small enough to fit on to a small and confined conveyor section, two load cell operation, operate off a lumpy 24Vdc supply, and give the operator the shift production totals at the press of a button."

After testing several products, he chose a system that met his strict requirements for value for money, performance and reliability. The system is a Milltronics Single-Idler (MSI) belt scale, with a Compu-M rate totalizer and a Milltronics bend-pulley-mounted speed sensor.

With its simple four-bolt installation and low head room, the MSI is easier and quicker to install than other traditional process industry belt weighers. The MSI's strong static beam protects against extreme vibration and continuous plant movement. The scale's dual stainless steel triple-beam load cells readily handle wet, dirty outdoor environments.

The belt scale system includes a Milltronics Compu-M or Accumass electronic integrator. Hartl chose the Compu-M, fitted into a lockable steel anti-vibration housing. The Milltronics belt scale integrators all operate from the 24Vdc supply which is standard in the mobile crusher industry. They offer simple push-button programming, easy-to-read backlit displays, and simple zero and span test weight calibration routines.

The third system element is the belt speed sensor. Hartl chose a Milltronics speed sensor pulley shaft-driven unit designed to eliminate inaccuracies caused by belt slip or product build-up on the belt. A return belt or RBSS wheel tachometer model is also available.

Benefits

The Milltronics Single-Idler belt scale system provided reliable, accurate measurement. The demolition team responsible for the operation of the two Powertrak crushers at the Severn Trent site relied on the tonnage totalizer readings from the belt scale electronics for their bonus payments which were verified over the site weigh-bridge on removal of the crushed stone. For these operators, the MSI belt scale system meant money in their pockets at the end of the day.