



Westco Bilanciali

in action

with



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Wessex Water view sludge as an important resource that can be used in a variety of ways, including crop fertilization, land reclamation and energy generation. Their strategy focuses on recycling the valuable nutrients that sludge contains in ways that are safe, environmentally sound and economically sensible. The sludge from the Minehead works is treated with lime and then de-watered before being transported to farms in closed containers for use as a fertilizer.



The *RoRo-Weigh™* platforms are designed specifically to weigh roll-on roll-off type waste containers during filling operations on site. Their robust construction ensures these modules can withstand the arduous conditions found at water treatment works, waste sites, building sites and factories. They are designed to have significant overload capability in

excess of their 30 tonne working capacity and the steel deck is supported on four 25 tonne capacity, fully sealed, stainless steel load cells.

The decks have guide rails along their 6.3 metre length and a 'V' shaped end locator. In this application, precise positioning is important to ensure correct alignment with the inlet pipe from the pumping manifold system. The wheels of the containers run along sacrificial steel strips set into the deck and these can readily be replaced when they become worn.



After processing, the limed sludge cake, which contains around 30% solids, is pumped at high pressure into the special sealed containers using a positive displacement pump. The system is completely automatic and the outputs from the four platforms are fed into the plant PLC. When the container being filled reaches its gross capacity of 16 tonnes, the system either shuts down the pumping process or transfers the sludge to another available container.

Minehead site supervisor, Mark Floyd is delighted with the system and as he explains: “We process around 2500 tonnes of sludge a year and the weekly throughput can fluctuate especially during the summer months when the population in the area increases. Therefore we need to ensure efficient and flexible sludge processing and removal. The weighing system, which has been operational for around two years, has proved to be very reliable and Westco have been extremely supportive throughout the project.

Before the platforms were fitted, we had to ‘guesstimate’ when the containers were full and this was far from satisfactory. If we underestimated the filling, the containers went out partly filled, creating transport inefficiency. However, more often than not, the containers were overfilled and this could result in the doors being forced open - with the obvious consequences! The system not only controls the filling process but also provides us with important long term weight data.”



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