

Built in resilience

In the Water Act 2014, and Ofwat's 'Towards Resilience' paper the following year, the water industry's remit was altered subtly to ensure that the ability to cope with and recover from a disruptive event is paramount. This emphasis on driving down asset vulnerability and ensuring quick return to proper operation after disruption is also a major focus for PR19.

The term 'resilience' inevitably covers the whole breadth of activities spanning the complexity of water and wastewater processes from abstraction through to discharge. However, one key aspect is the protection of wastewater assets, particularly vital pumps, from the significant damage that they can suffer from debris.

Pump vulnerability to unexpected shocks will be among the risks that the industry is contemplating urgently as it gears up for the periodic price review. This is because many, and many different types of pumps, are at the heart of every wastewater treatment works. Debris can have a major impact on these pumps, and other equipment and processes, creating blockages, damage, wear and costly downtime.

A globally recognised and respected solution which builds-in asset resilience from the outset by removing debris effectively is the Bosker trash rake available in the UK and Ireland from Jacopa. The Bosker trash rake can grasp and remove even difficult debris, and thus ensure awkward floatables do not progress further into the works to damage the fine screens and expensive pumps.

By combining a trash rake, overhead track and debris loading system into a single integrated plant the Bosker reduces costs and provides an overall solution that works together as one unit to collect and dispose of all debris, even awkward material like tree trunks and fibres.

When installed, Bosker trash rakes can be pre-programmed with differential level settings that allow them to be used in most channel depths, and can be retrofitted into existing channels with a minimum of modification. The overhead system has a fully automated grab unit whose robust



Bosker trash rake installation at Thames Water's Walton-on-Thames water treatment works

grippers can grasp heavy and awkward items such as plastics, grass, glass bottles, timber, concrete and bricks, as well as balls of condensed fat and rags; a well-known issue on the wastewater treatment side for water companies across the UK.

As well as the popular overhead Bosker, Jacopa offers the low-profile fixed Bosker Bandit and the travelling Bosker Bandit. The fixed unit is suitable for narrower channels and the travelling unit can span wider or multiple channels as it is set on a deck-mounted travel carriage. The range now covers an extremely wide variety of potential site configurations, enabling water companies to better protect even more assets. With the need to improve resilience for the next periodic price review, such systems, resolving issues and improving safety and efficiency will undoubtedly prove their worth.

At the Pump Centre conference Jacopa's Mick Burton will present a breakout session entitled 'Raking in Resilience' during which he will present the case for strategic risk resistance, protecting pumps and pumping systems at inlet works through the deployment of smart up-front trash rake technology to build-in asset resilience from the outset.

Visitors to this year's Pump Centre exhibition will be able to find out more about the very latest technology from Bosker on the Jacopa stands F9 and F10.

Contact
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Bosker deep raking system installed on a 110-metre-deep inlet screen