



XRipper®: Avoid costs for trouble shooting of the pump in front of the sludge thickening

Case Study - Viacqua Spa, Schio WWTP



Problem

High costs to eliminate clogging and blockages of the pump in front of the sludge thickening

Solution

Vogelsang XRipper XRP136-140Q

The customer and the problem

Viacqua Spa is a municipal company, which ensures the integrated water service in 68 municipalities in the province of Vicenza and manages 40 wastewater treatment plants. Among others they are involved in the operation and maintenance of the Alto Leogra wastewater treatment plant in Schio (VI). The plant with biological treatment has a capacity of 60,000 PE (Population Equivalent), and purge the wastewater of the municipalities of Valli del Pasubio, Torrebelvicino, Santorso and Schio. The plant utilizes actually a capacity of 45,000 PE. Ten percent of the wastewater entering the plant is of industrial origin and comes mainly from the food, textile and galvanic sectors.

In the initial stages of the treatment, lint of fabrics, hair and other fibrous materials are not completely intercepted in the screening section and cause clogging and blocking of the pumps which are present in the following part of the plant. Since the screen in the inlet of the plant does not safely intercept all lint of fabrics, hair and other fibrous matter contained in the wastewater, frequent clogging and blockages of the pumps in the downstream process occur.



The solution

To avoid the extra effort and cost, Viacqua decide to install Vogelsang's sturdy XRipper twin-shaft grinder XRP136-140Q. The XRipper normally treats the sludge in front of the pump which feeding the thickening (flowrate:20-25 m³/h with a dry matter of 2.5 - 4%). However, when the amount of surplus sludge rise a second pump is activated and the flow rate reaches 50 m³/h.

Even than the XRipper twin-shaft grinder shreds all the materials that cause obstructions and reduce them to an unproblematic size. Since the XRipper XRP is in operation, the operator note an decrease in plant shutdowns and lower cost for maintenance and troubleshooting as well as spare parts for maintenance of the pumps. The robust structure of the grinder and the double shaft technology make the XRipper to a reliable and economical solution for reducing coarse and harmful material to an unproblematic size.



Vogelsang XRipper

Advantages of the XRipper®

- Reliable size reduction of fibers and coarse materials
- Quick and easy to retrofit and maintain
- Self-cleaning thanks to different speeds of the shafts

Benefits for the user

- No longer frequently clogging of the pumps
- Less cost for maintenance work and spare parts
- Smooth operation of the whole plant thanks to less breakdowns

Mentioned Vogelsang product

[XRipper: Twin-shaft grinder for sewer and wastewater treatment plants](#)



Mentioned Vogelsang product

[XRipper: The wastewater grinder for wastewater applications](#)



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