



## Large Peristaltic Pump Restores Compliance in 24 Hours

### Overview

A wastewater treatment site faced a critical operational challenge when its Primary Settlement Tank (PST) de-sludge pumps failed. With both duty and standby pumps out of action and only a single macerator still functional, the site was unable to remove settled sludge. The risk of operational downtime was significant, and tanker hire appeared to be the only immediate option.

Within 24 hours of the order being placed, Atlantic Pumps delivered a large peristaltic pump on hire. The emergency solution not only kept the site running but also highlighted the potential long-term benefits of adopting peristaltic pump technology permanently.

### The Challenge

The site's existing de-sludge pumps were old, obsolete models that had reached the end of their serviceable life.

Both the duty and standby pumps had failed, and long lead times for replacement parts meant the repair would take time they didn't have. Wear caused by rag and grit had weakened the system and the macerators in place were unable to provide adequate protection to the pumps. As a result, settled sludge could not be removed from the tanks, putting the site at risk of non-compliance with environmental regulations.

The situation was made more urgent by heavy rainfall, which increased inflows and added to the risk. With its sludge-treatment capability effectively paused, the operator was forced to consider hiring tankers to divert the sludge to another location. However, this would have been costly, disruptive, and unsustainable over the length of the repair period. A fast, reliable, and affordable alternative was needed to keep the site operational and compliant.

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## The Solution

Atlantic Pumps responded by supplying a large peristaltic pump as a temporary hire unit. The pump was installed with flexible hose connections and integrated into the site's existing control system. It was powered, monitored, and controlled through the existing pump panel and configured to run in auto mode on a timer.

The pump proved ideal for the application. Unlike the failed pumps, it could handle rag and grit with ease, removing the need for macerators altogether. Its variable speed capability allowed operators to match the pump's output to the process requirements, while its reversible function provided additional operational flexibility. By bridging over the out-of-action de-sludge pumps and macerators, the hire pump restored sludge removal quickly and safely, at a fraction of the cost of tanker hire.

## The Results

The temporary peristaltic pump kept the site operational during a period of significant risk, ensuring sludge could be removed efficiently and that compliance with the Environment Agency was maintained. The solution demonstrated clear advantages over traditional sludge pumps, including greater reliability, simpler operation, and robust handling of rag and grit.

The success of the hire arrangement has led the site's management to consider the benefit of a permanent installation of two peristaltic pumps in duty and standby configuration. Replacing four older machines with two modern pumps offers the opportunity for substantial energy savings, lower maintenance costs, and a reduction in operational complexity. The ability of the pumps to run dry, operate in reverse, and be maintained simply by site operators makes it an attractive long-term option.

What began as a rapid response to an urgent problem has demonstrated the potential of lasting value in peristaltic pump technology. The response proved that these pumps are not only capable of solving short-term crises but also of delivering sustainable, cost-effective sludge management for the future.



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