

Case Study



Dura Pump solution delivers energy savings, zero blockages and zero downtime.

The Challenge

Our NHS hospital customer, part of the University Hospitals of Leicester NHS Trust, was facing ongoing issues with its sewage systems, leading to frequent blockages. This resulted in patient and compliance inconvenience, system downtime and expensive tankers being hired to remove the waste.

The Solution

Dura Pump's Velocity Sentinam product had been in operation in a similar West Midlands NHS hospital for over 11 months with no issues, therefore, we knew that a similar solution would work for this NHS customer.

Velocity Sentinam is the only solution of its kind available to resolve this costly problem. It uses advanced pump technology, consisting of specially engineered wastewater pumps, which feature intelligent control systems, automatic cleaning functions and robust materials. We designed the system to perform reliably in critical environments.

The solution for this customer solved these problems:

- FOG and floating debris: The advanced pump technology lowers fluid levels to skim the FOG and debris from the surface. This takes place multiple times a day, preventing buildup.
- Blockages: By regularly skimming the tank, the levels of fat buildup were eliminated, avoiding blockages. We also introduced adjustable start/stop controls to optimise sump cleaning, improving operational consistency and delivering a cleaner system.
- High solid content: The heavy-duty, industrial-grade pumps are engineered to cut through all sorts of blockages, including FOG and other debris such as cloths and wet wipes.
- Expensive tankers – our solution eliminates wastewater blockages; therefore, tankers are no longer required.



Technical Specification

- ✓ Before installation, a final super tanker was needed to clean and empty the 3,000 gallons of waste from the pump station so that the pit was completely cleared before the upgrade could begin.
- ✓ We installed industrial-grade submersible cutter pumps with an extended knife system.
- ✓ The industrial-grade pumps are backed up by SenIQ, our intelligent bespoke control panel fitted with inverter drives, a radar level control system, HMI/PLC controllers, remote monitoring, flashing sound beacons and BMS connections.
- ✓ Energy optimisation – our system detects the incoming flow rate and controls the duty of the pump to match.
- ✓ Remote monitoring – our SenSync product delivers live system tracking with immediate fault detection and alert delivery. This reduces the need for onsite diagnostics. Automated notifications via SMS, Email or building systems, deliver peace of mind that the system is fully operational and working as it should.
- ✓ SenSync reporting - recognises trends over time, indicating wear on the pumps, valve issues and other performance-related issues.
- ✓ Modification of pump claws to allow installation on existing pedestal arrangements.

The Outcome

The installation of the Velocity Sentinam product has delivered significant operational and financial benefits to our hospital customer:

- **Reduced Costs:** Tankers are no longer needed to empty constant blockages.
- **Minimised Downtime:** Zero blockages and callouts mean less disruption to daily operations.
- **Improved Monitoring:** the SenIQ control panel and SenSync remote monitoring deliver 24/7 visibility, giving the customer peace of mind that the system is operating at its optimum.

Velocity Sentinam resolves the issue, so no blockages occur, no tankers are required and therefore no downtime is experienced for this problem.

