Keeping AMP8 Clean

The Critical Role of Storm Tank and Screen Cleaning in AMP8's £11 Billion Spill Mitigation Plan

The United Kingdom's water industry is poised for its most ambitious transformation yet under the AMP8 (Asset Management Period 8) investment cycle, which runs from 2025 to 2030. Backed by an unprecedented £108 billion investment, the largest in the sector's history, AMP8 is focused not only on maintaining and upgrading ageing infrastructure but also on addressing growing environmental and regulatory challenges.

A significant £11 billion of this total has been earmarked specifically for stormwater and sewage spill mitigation, reflecting mounting pressure from regulators, the public, and environmental groups to curb pollution in rivers, lakes, and coastal waters.

At the heart of this environmental push lies the urgent need for more stormwater retention tanks and combined sewage overflow (CSO) systems. It is estimated that some 2,000 such systems will need to be updated, refurbished or built in the AMP round of funding. This stormwater management infrastructure is vital if the target of reducing spills and sewage discharges into waterways by 44% is to be met.
Much of this new infrastructure will require specialised cleaning systems.

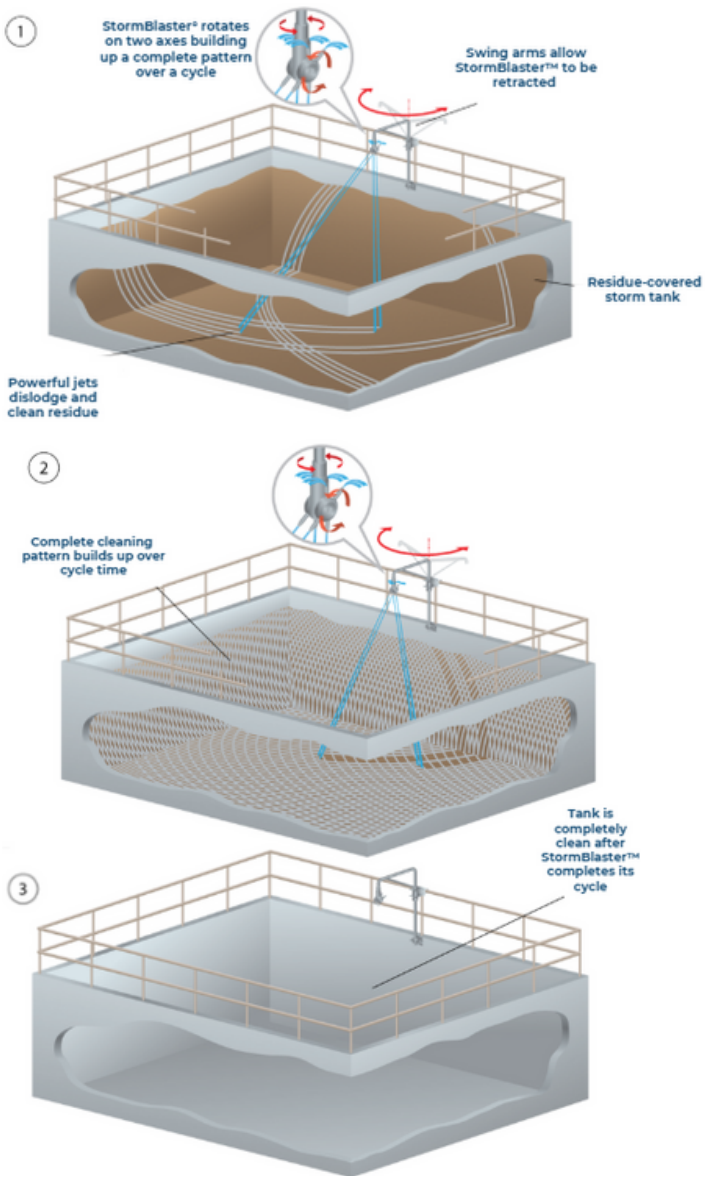
Storm Tank Cleaning

Storm tanks are designed to provide temporary storage of excess wastewater during peak flows. However, without effective and regular cleaning, these tanks become a source of secondary pollution. If not cleaned properly, the residue that remains will decompose and start to smell. The pollution from discharge into waterways may be solved by the storm tank, but the smell from the tank now results in odour pollution.

The StormBlaster™

In addition to this, inadequate or infrequent cleaning can result in premature degradation of the tank, reducing the lifespan of this vital infrastructure.

AMP8's targeted spill mitigation funding recognises this issue. Utility companies are being incentivised and, in many cases, mandated to install automated storm tank cleaning systems that prevent the build-up of odour-causing debris, reduce maintenance requirements, and extend asset life.



The StormBlaster™ System

There are a variety of different types of storm tank cleaning system available. The most versatile and effective systems use rotary jet cleaning heads, such as our StormBlaster™, to methodically clean the tank.

Whilst there are some exceptions, most storm tanks can be cleaned using the StormBlaster™ system. One of the main advantages is that no modifications to basic tank designs need to be made. Some cleaning systems require that special channels, slopes or catchment sumps be specified into the tank build.

With a properly specified rotary jet cleaning system, no such special features need to be incorporated into the tank build. If there is a sufficient drain gradient of 1% or more (which there always is), then almost any tank design can be cleaned effectively.

As no tank modification or special design features are needed, this brings down the overall cost of the build.

In addition, rotary jet cleaners are often cheaper to install than the alternatives, they have a lower operating and maintenance cost, and they provide a better overall clean. In nearly every other industry that has very large tanks, rotary jet cleaning systems are the default method of cleaning.

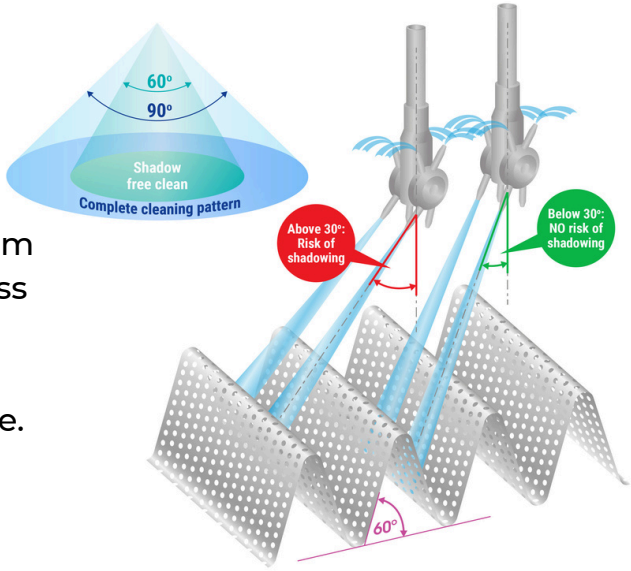
Of note is the cleaning of large ocean-going oil tankers. This industry has huge tanks that are often far bigger than stormwater tanks. The industry standard for cleaning such tanks is rotary jet cleaning heads. Indeed, our Storm Blaster rotary jet cleaner is based on exactly that technology. Almost all industries have now independently converged on rotary jet cleaners as the most effective way to clean large tanks, and the water industry is no exception.

Screen Cleaning

Screening systems are an equally vital part of the AMP8 upgrades, acting as the last line of defence before wastewater is discharged into the environment. CSO screens remove solids from overflowing sewage systems during storm events. This allows the solid-free excess water to be discharged or stored in storm tanks. Without such screening, solids and rags will end up in the seas and waterways.

The ScreenBlaster

The problem is that screens tend to block up with solids over time and so need to be regularly cleaned. An inadequately cleaned screen will not allow water to pass through it at the required rate, and so the overflow system will not work. This means that the excess water, containing all the solids, will escape at some other point. This will then result in an uncontrolled discharge.

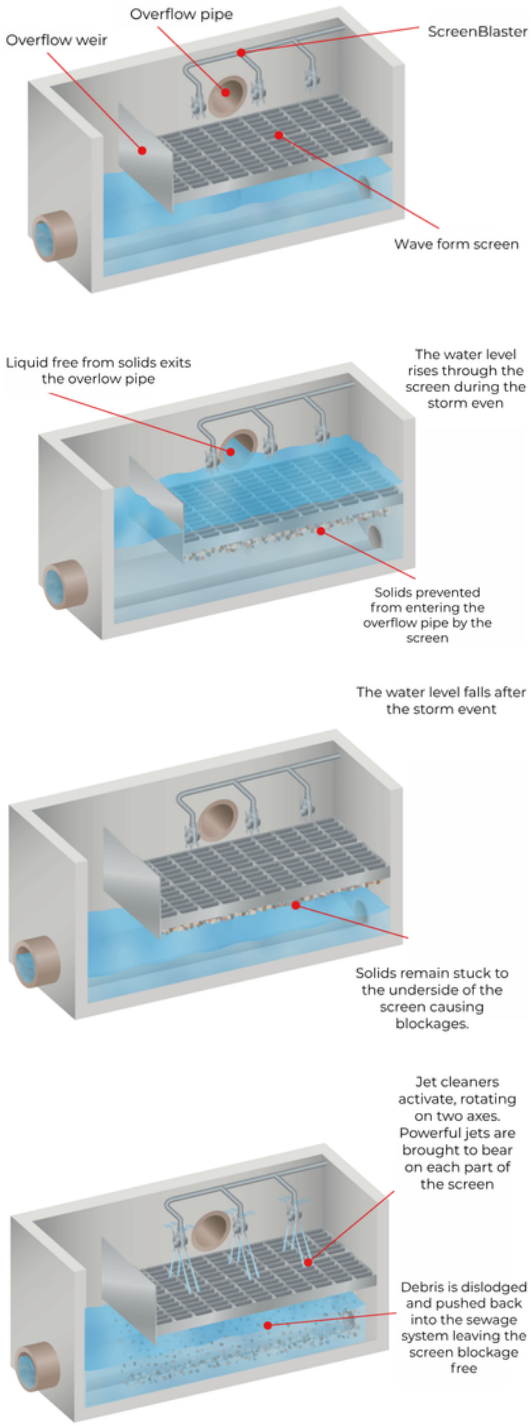


The ScreenBlaster System

Typically, CSO screens are on a much smaller scale than the actual storm tanks. They also have specific features that mean a different type of cleaning head is required.

Many static screens have a wave form, which makes them difficult to clean from a fixed point because the wave nature of the screen blocks any cleaning jets. As such, we need to ensure that the angle at which the cleaning jet hits the screen is large enough to overcome the waveform of the screen. This requires a different type of tank cleaning head, one that is more narrowly confined in its cleaning pattern. Due to the restricted cleaning pattern, it is necessary to have more nozzles on these types of cleaner.

Our ScreenBlaster machine is perfect for this task. It has eight nozzles and can be restricted to a 90-degree downward cleaning pattern, making it ideal for cleaning static waveform CSO screens. As with the StormBlaster™ system, the ScreenBlaster is highly efficient, will work with almost all standard screen designs, and can be fully automated. Effective automated cleaning will ensure that CSO screens remain debris-free and so maintain their required flow-through rate.



A small upfront investment in automated or semi-automated cleaning systems reduces the need for manual cleaning and so saves money in the long run, as well as helping to ensure the system works properly.

A Broader Context

The £11 billion investment in storm water and spill reduction is not just about infrastructure. It is about public trust and ecological responsibility. In recent years, public concern over raw sewage discharges has reached record highs, prompting government and regulatory action. Advanced storm tank and screen cleaning systems offer a measurable, cost-effective way for utilities to help ensure they meet those obligations.

Conclusion

The huge investment in the UK's water infrastructure needs to be delivered in a cost-effective way. It is our belief that tank and screen cleaning systems are one way to help ensure UK taxpayers get the most out of this investment. The investment in proper automated cleaning systems represents only a very small fraction of the £11 billion being invested in spill reduction, but the impact they can have on the effectiveness and efficiency of the whole system can be disproportionately high. It is one of the often-neglected little things that can make a huge difference. Good cleaning systems save money, time, effort and potentially fines from the Environment Agency in the long run.

To find out more about these systems,
please get in touch with our technical experts