



The Channel Monster combines rotating screening drums with proven Muffin Monster grinding technology.

Monster Solutions

Channel Monsters Improve Screen Efficiency for Northern Ireland Water

By Chris Spencer - Sales Manager, JWCI

Moygashel, N. Ireland – JWC Environmental and Williams Industrial Services (WIS) our distributor for Northern Ireland were invited by Michael McAlary, Functional Manager for Northern Ireland Water Limited (NIW), to conduct a site survey at Moygashel WWTP in Dungannon which receives 25 million gallons per day (1,100 l/sec inlet flow). Moygashel was experiencing repeated operational and maintenance issues with their existing non-JWCE fine band screens and screenings compactors.

Due to heavy rain fall, especially in the winter months, the flush surcharge from the gravity main flowed immediately onto the 1/4" (6mm) Inlet Band Screens. This would cause the screens to overload and blind 3-4 times a week requiring maintenance call outs and manual labor to clean them.

The ineffective headworks screens resulted in screenings being forced through into the wastewater process. NIW estimated an additional 16 man-hours were needed per week.

JWCE's Channel Monster heavy duty grinders were recommended to precondition the debris in the flow and protect the screens from overload and damage by essentially acting as a control buffer. The Channel Monster consists of two rotating drums feeding the captured solids into a heavy duty grinder.



Channel Monsters are a proven technology – clean, powerful, reliable and cost effective. It's the industry's high-flow grinder of choice!

PROBLEM: Debris rendered headworks screens ineffective

SOLUTION: Channel Monsters® grind incoming solids

The grinding process controls the rate at which the solids hit the screen and reduces them to a smaller uniform particle size. The grinders also liquefy more of the solid fecal matter so it remains in the flow and enters the treatment process. Without the grinders, solid organics were removed by the screens and dropped into the dumpsters generating foul odors.

The entire installation was managed by JWCE's staff from our JWC International division in Congleton, UK. The mechanical and electrical installation was completed by WIS in less than one working day.

The Channel Monsters have been operating continuously for over two years and have solved the issues with the headworks screens previously experienced by the site operators.

Moygashel has benefited greatly from the installation of the Channel Monsters. Not only have they resolved their peaking factor at the headworks but JWCE also solved problems with their existing compactors. Previously, the compactors were unable to process heavier plugs of rags and solids that were screened and removed from the flow by the inlet screens. The Site Operators continually had to unblock plugs that built up within their units.

Both NIW Senior Management and the Moygashel Site Operators acknowledge the Channel Monster as a great success in their treatment process.



This proves that installation of the Channel Monsters can quickly and cost effectively resolve operational issues on site with minimal disruption.

Additionally, JWCE has proven that grinding of the incoming flow before headworks screens and compactors ensures these processes are far less problematic.

“Fundamentally, meeting compliance at a reduction in overall operation costs is our game. In today’s economic climate where NIW is looking at ways of reducing our whole life costs and at the same time having to meet the ever tighter environment consent standards,” said McAlary. “I needed a simple, easy to install and maintain solution to enhance the Inlet Works and in so doing, protecting the entire process. In Moygashel, JWCE has more than met my expectations and provided my team with a simple solution in the form of their Channel Monster Grinders.”

“We have shown that we can quickly resolve many operational problems both upstream and downstream of Screening Systems by installation of our Grinding Equipment,” said Chris Spencer, European Regional Sales Manager for JWCI.

About JWCE

JWC Environmental’s family of wastewater, stormwater and sewage treatment products are legendary for quality and reliability – including the Muffin Monster and Channel Monster sewage grinders, and the Auger Monster, Screenings Washer Monster and Monster Separation Systems, which incorporate a fine screen or band screen with superior sewage screening conditioning.

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High-flow screening drums capture solids and direct them into the grinder



Shown here are JWCE’s custom made stainless steel inlet channel, overflow outlets with two Channel Monster grinders

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