

Channel Monsters™ improve screen efficiency for Northern Ireland Water

The Moygashel wastewater treatment facility, operated by Northern Ireland Water Limited (NIW), was experiencing repeated operational and maintenance issues with their existing fine band screens and screenings compactors. Michael McAlary, Functional Manager at the site, needed a simple solution to resolve the problems.



“I needed a simple, easy to install and maintain solution. The Channel Monster grinders more than met my expectations and provided my team with a simple solution.”

Michael McAlary, Functional Manager, Northern Ireland Water Limited (NIW)

The challenge

The Moygashel site was experiencing repeated problems with their fine band screens and screening compactors. Due to heavy rainfall, especially in the winter months, the flush surcharge from the gravity main flowed immediately onto the 6 mm inlet screen bands. This would cause the screens to overload and blind 3 – 4 times a week requiring maintenance callouts and manual labor to clean them. The ineffective headwork screens resulted in screenings being forced through into the wastewater process. NIW estimated an additional 16 man-hours were needed per week.

The solution

The CDD Channel Monster 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. The grinding process controls the rate at which the solids hit the screen and reduces them to a smaller particle size. The grinders also liquefy more of the 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 odor.

Customer benefit

Moygashel has benefited greatly from the installation of the Channel Monsters. Not only have they resolved their peaking factor at the headworks, but 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.

The Sulzer difference

Grinders are typically known for pump protection applications. This case proves that using Channel Monsters to grind the incoming flow before headwork screens and compactors ensures these processes are far less problematic.

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