

# Case Study:

## Pump Action Screen (PAS) - Mechanical Screen

**Site:** Craigwen  
**Client:** Welsh Water  
**Application:** CSO  
**Completion Date:** March 2007

**Key Project Partners:**  
**Client:** Welsh Water  
**Consulting Engineers:** Welsh Water/Imtech Process  
**Main Contractor:** Imtech Process



▲ Single screen arrangement, venturi and guide rail.

### Scope of Contract:

Design, manufacture, supply, install and commission 1 No. CSO-PAS300 screen for Craigwen CSO in south west Wales.



▲ Scouring action during the operational stage of the Pump Action Screen

### Background:

Craigwen CSO had a requirement for a 1 No. semicircular screen adjacent to the weir to remove screenings from storm overflow. A wash system must be installed to remove screenings from the screen and retain the into the forward flow to the treatment works and its screening system.

CSO Group were approached by Imtech Process to design, manufacture, supply, install and commission a Pump Action Screen equipped with a submersible pump and an air entrapment venturi system.

### System Overview:

The Pump Action Screen (PAS) is a simple and robust CSO mechanical screen which consists of a half round Stainless Steel basket with 6mm perforations, submersible pump, distribution pipework and a venturi. It is designed to prevent the discharge of non-biodegradable solids greater than 6mm in two directions. The screening debris is scoured from the underside of the screen basket and punched passed the end of the screen eliminating potential representation.

### Project Details:

Spill Flow:	40 l/s
Screen Size:	PAS300 x 1000
Pump:	Flygt
Material:	304 Stainless Steel

### Maintenance:

After every storm even the screen should be visually inspected to insure the pump is operational and the screen basket has been cleaned effectively.

The screen has no moving or maintainable parts. The pump is installed on a guide rail system for easy maintenance outside the chamber.

### NZ Distributor:



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