

Heliscreen® CSO Retrofit Beneath Main Road

Project Profile

Objective

To provide a reliable, low maintenance CSO solution under a main arterial route through Sheffield with the minimum of disruption.

Solution

Design and supply a packaged CSO system capable of being installed within one day to comply with construction restraints and minimise road closures.

Two Combined Sewer Overflow upgrade projects in urban Sheffield demonstrate the versatility of Hydro's Heliscreen® in assisting the Yorkshire Water Services Ltd to improve the city's water quality to the Environment Agency's standards. At the Atlas Works and Carlisle Street sites, twin Heliscreen® units were retrofitted into existing chambers under the road surface.

Both projects were designed to improve existing CSO arrangements. During heavy rainfall the chamber overflowed into the watercourse causing pollution by visually offensive material.

To upgrade this to a positive screening method, at an economical cost, Yorkshire Water installed twin patented Heliscreen®s in double high-sided weirs. Both units were supplied with bespoke stainless steel flow channels which enabled complete mechanical installation within one day with minimal civil work.

The Atlas Works installation under an urban road comprised two 700 x 2500 mm units with a maximum inlet flow of 1593 l/s (1 in 5 year) and a maximum screened flow of 1328 l/s (1 in 5 year).

Yorkshire Water's Contracts Manager, Peter Myerscough, commented: "The Heliscreen® is an efficient, versatile and cost-effective unit. The bespoke Heliscreen® installations at Carlisle Street and Atlas Works were completed on time and within our normal 10-12 week delivery period".

Hydro International's patented Heliscreen® is a self-cleansing, low head loss screening device that protects CSO outfalls by retaining all matter greater than 6 mm (in 2 directions) in the foul continuation flow to the treatment. The Heliscreen® works effectively even in totally flooded chambers with surcharged outflow pipes.

Product Profile

- Self-cleansing by rotating helical brushes.
- All screenings retained on the foul side of the weir.
- Low headloss.
- Operates under surcharged conditions.

Find out more at www.hydro-int.com



Carlisle Street Heliscreen® awaiting installation.



Carlisle Street Heliscreen® installed in the chamber.