

Copa® COPACURVE™ Cross Wave Screen

6mm Aperture Crosswave Screen

Key features & benefits

- Stainless Steel construction
- 6mm screening in 2 dimensions
- Robust, proven technology
- Suitable for retrofit applications

How we create value

- No power costs
- Meets regulatory requirements
- Ease of maintenance
- Bespoke design reduces costs



Applications

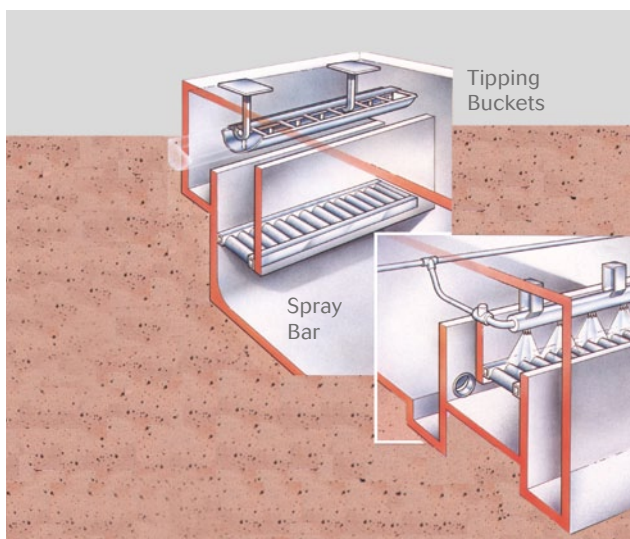
The Copa[®] Copacurve[™] cross wave screen can be installed within any CSO location, whether into an existing below ground storm overflow chamber, or at the overflow from a storm storage tank or pumping station wet well. The perforated plate creates a physical barrier in the path of the flow, retaining gross solids of and above 6mm diameter in 2 dimensions.

Operating Principle

The Copacurve cross wave is typically installed horizontally at 90 degrees to the overflow weir, with upward flow through the screen. The unique curved wave shape of the screen and the electro-polished screening surface aid the drop off of screening material as the water level in the chamber falls.



Retro-fit installation of screen.



The smooth profile of the screening surface is electro-polished to remove all sharp edges and enhance screenings drop off.

The screen is manufactured from stainless steel perforated sheet, with 6mm diameter holes. This gives true 2 dimensional screening for 6mm objects (as opposed to 6mm square holes which have a diagonal length of 8.5mm), allowing for much more effective screening.

The pitch centers of the holes and plate thickness increase screening efficiency by reducing the effect of hair-pinning and the problem of screenings becoming snagged, which occur with a more conventional wire construction.

The Copacurve cross wave has a standard wave form depth of 300mm (other design options available), providing a screening area of three square meters for every one square meter of plan area.

The design flow rates per square meter of screen (plan area) are:

- Settled sewage = 150 l/sec/m²
- Unsettled sewage = 75 l/sec/m²

Flow rates are calculated assuming the screen to be operating with a 60% blinding factor at maximum flow.

Maintenance

The smooth profile is designed to enhance screenings drop off, while allowing the trough of the wave to remain clear. As with all static screens, it is important to routinely backwash the screen. This will prevent the gradual build up of matter on the underside of the screen over time. Backwashing frequency is very site dependant and should be ascertained over time.

The backwashing can be undertaken either automatically or manually. The use of a spray bar or sparge system above the screen, or the positioning of the screen under a tipping bucket used to clean a storm tank, can achieve automatic cleaning. Ovivo can provide tipping buckets and spray systems as extras.