

WATSOL Sewer Comb

Key Benefits

- Minimal maintenance
- No blinding during operation
- No hairpinning
- No mechanical cleaning required
- No power required
- Modular design to treat high flows
- High capture rate

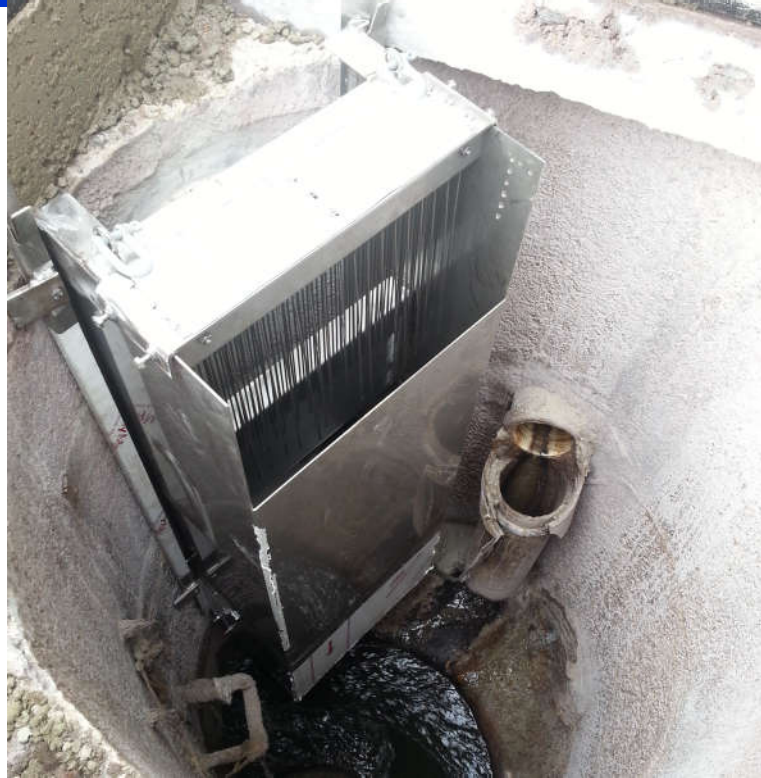
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DESIGNED & MADE**

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Sewer overflows create unsightly, unpleasant, ecologically harmful effects in receiving waters, and become a public and workplace health and safety risk to clean up.

The WATSOL Sewer Comb™ provides a cost-effective, high efficiency, low maintenance solution to remove >6mm materials from sewage during overflow events. Using proven, unique self-cleansing technology (patented), the captured materials are returned to the sewer as the overflow event recedes. Modular designs allow expansion of the system so that highflow bypass is limited or prevented.

Retrofitted into existing structures or installed into new precast/cast in-situ chambers, the WATSOL Sewer Comb™ is custom-designed to suit site constraints & flows.



OPERATION STEPS

1. Dry weather—Normal Flow conditions
2. High flow conditions flood chamber
3. High flow conditions fill chamber to crest of weir
4. Overflow occurs through the WATSOL Sewer Comb™
5. Normal flow conditions return and
6. captured waste material is discharged back into the sewer.



HOW DOES IT WORK?

The WATSOL Sewer Comb™ is an innovative technology utilising 316 Stainless Steel combs to screen sewer solids from the overflowing weir nappe. An hydrostatically-actuated ball valve isolates a solids holding chamber as flows increase. The combs intercept and capture the solids in the holding chamber. The combed nappe then passes through to be discharged to the emergency overflow pipe. As emergency flows recede, the ball valve releases the captured solids back to the sewer chamber to return to the WWTP.



PROVEN PERFORMANCE

The WATSOL Sewer Comb™ has been tested against the UK Water Industry Research (UKWIR) protocols for Screenings Retention Value (SRV) of solids >6mm. The screen was found to retain a significant quantity of solids greater than 6mm in two dimensions. (ThompsonRPM, 2011). The results rank the WATSOL Sewer Comb™ in the top three of all systems tested, including mechanically cleaned screens, and required no manual intervention, mechanical cleaning or power supply. The tests also found no blinding or hairpinning during the test events.



FREQUENTLY ASKED QUESTIONS

1. Typical dimensions — 1500 mm high x 500mm wide x 600 mm deep
2. Can it be installed in rectangular or circular chambers - yes, both.
3. Does it fit through a 600 mm diameter Access lid? - We recommend a 600 mm x 900 mm rectangular lid, offset to the side of the pit where the Assembly is installed, to improve access and maintenance.



COST-EFFECTIVE, UNDERGROUND SOLUTIONS

The WATSOL Sewer Comb™ requires no manual intervention, minimal maintenance and no electrically-powered mechanical screen brushes. Custom-designed, the WATSOL Sewer Comb™ is conveniently installed underground, and has been designed for safe confined space access.



ThompsonRPM (2011) *Evaluation of the WATSOL Comb Separator Screening Retention Value*