# Swirl-Flo<sup>™</sup>



# Get effective primary and secondary wasteater treatment in a single compact, unpowered unit.

### Overview

The Swirl-Flo<sup>™</sup> separator is a **high-efficiency**, **small-footprint** treatment technology that combines primary clarification and high-rate treatment to provide in excess of 90% settleable solids removal from municipal and industrial wastewater.

With **no power requirements** and **no moving parts**, Swirl-Flo<sup>™</sup> is easy to operate, clean and maintain, and represents a reliable, lowcost alternative to larger, less effective primary clarifiers and secondary treatment systems for wastewater treatment plants (WWTPs).

Providing **better effluent quality** than conventional technologies such as lamella plates—particularly under shock loading conditions—Swirl-Flo<sup>™</sup> may be operated with chemical dosing of flocculants and coagulants to provide advanced secondary treatment, delivering **high removal rates** of BOD, COD, phosphorus and FOG associated with the solids.

# Applications

- Small-footprint primary wastewater treatment
- WWTP front-end load reduction
- WWTP retrofit, renovation, upgrade and expansion
- Single-stage sewage treatment
- Industrial wastewater treatment

### **Benefits**

- Get improved wastewater treatment in a fraction of the space needed by conventional technologies
- Get reliable primary and secondary treatment, even under shock loads
- Improve, expand, refurbish or retrofit existing plants easily
- Operate, clean and maintain easily and cost-effectively

# Get wastewater treatment in a fraction of the space

The Swirl-Flo<sup>™</sup> separator can treat equivalent inflows in as little as 25% of the space required for a conventional primary clarifier, and can equally provide secondary treatment in the same unit.

This cuts installation costs for new plant developments, and enabling plants to retrofit and free up valuable space.

# Get reliable treatment, even under shock loads

Many conventional systems suffer reduced performance when placed under pressure, with shock influent loads adversely affecting more sensitive technologies such as lamella plate clarifiers.

Swirl-Flo<sup>™</sup> may be operated at far higher overflow rates than primary settling tanks, with tests demonstrating equivalent performance at many times the loading rate of conventional tanks.

#### Improve or expand existing plants

As a small-footprint technology with minimal headloss and no power requirements, the Swirl-Flo™ can be easily retrofitted into existing WWTPs.

This allows operators to renovate, expand and upgrade easily to meet increasing demand or to repurpose space taken up by large, underperforming conventional primary and secondary treatment equipment.

# **Technical summary**

#### Modes of operation

- Standard (primary treatment)
- Chemical dosing (high-rate secondary treatment)

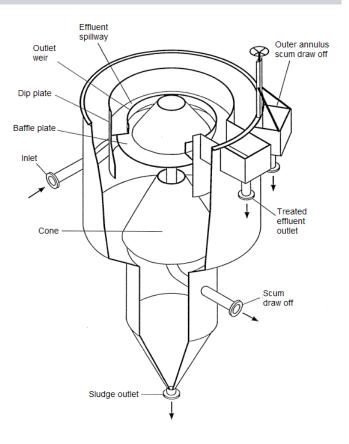
#### **Typical removal rates**

Standard mode

- TSS: >50%
- BOD: >30%

#### Chemical dosing mode

- TSS: >90%
- BOD: >70%



### Learn more

To learn more about how Swirl-Flo<sup>™</sup> can help you to treat wastewater more effectively and efficiently, visit **hydro-int.com**, search **Swirl-Flo** online or contact us:

#### Americas

+1 (866) 615 8130 inquiries@hydro-int.com

#### Asia Pacific

+61 436 433 686 enquiries@hydro-int.com

#### Europe & RoW

+44 (0)1353 645700 enquiries@hydro-int.com

#### Middle East

+971 506 026 400 enquiries@hydro-int.com

hydro-int.com/contact



13-15 Aylesbury Street, Botany NSW 20109 Australia (t): +61 (02) 9695 1911 www.vor-env.com