

CIRCULAR CLARIFIER SYSTEMS



With over 60 years of design and commissioning expertise, you can be assured that your Hydroflux Epco clarifier will perform consistently with a long service life.

Hydroflux Epco clarifiers have been in operation since the late 1960's, in municipal water and wastewater treatment plants, industrial and mining applications.



DESIGN CONFIGURATIONS

The Hydroflux Epco clarifier range includes the following configurations:

- Full and half bridge fixed
- Full and half bridge peripheral drive
- LogMax® Log spiral scraper mechanisms
- VeeMax® Chevron type fixed scrapers
- HeadMax® Suction headers

KEY FEATURES

- Robust construction with heavy duty design
- Extensive design expertise with over 330 installations in 3 continents
- Minimises denitrification flotation
- No scouring of sludge blanket
- Proven drive arrangement, for both centre drive and peripheral designs
- Reliable heavy duty scraper designs for all mechanical scraper and suction systems
- Self cleaning FlocWell™ centre well design that promotes flocculation

REFERENCES



Mt St John STP, Australia

- 3 x 45M Clarifiers
- LogMax® sludge removal system
- Secondary clarification



Launders Chute WTP, Australia

- 1 x 9M VeeMax® Clarifier
- Potable water treatment
- Lime softening



Subiaco STP, Australia

- Secondary clarification with full CoverSweep® covers
- 4 x 20M Secondary Clarifiers
- LogMax® sludge removal system



ACC Beef, Australia

- 1 x 15M HeadMax® Suction Head Clarifier
- Secondary clarification industrial

APPLICATIONS

Municipal Water Treatment

- River water clarification
- Backwash water recovery
- Sludge thickening
- Lime softening

Industrial and Mining

- Primary solids and precipitate removal
- Secondary clarification
- Tertiary clarification
- Raw water clarification

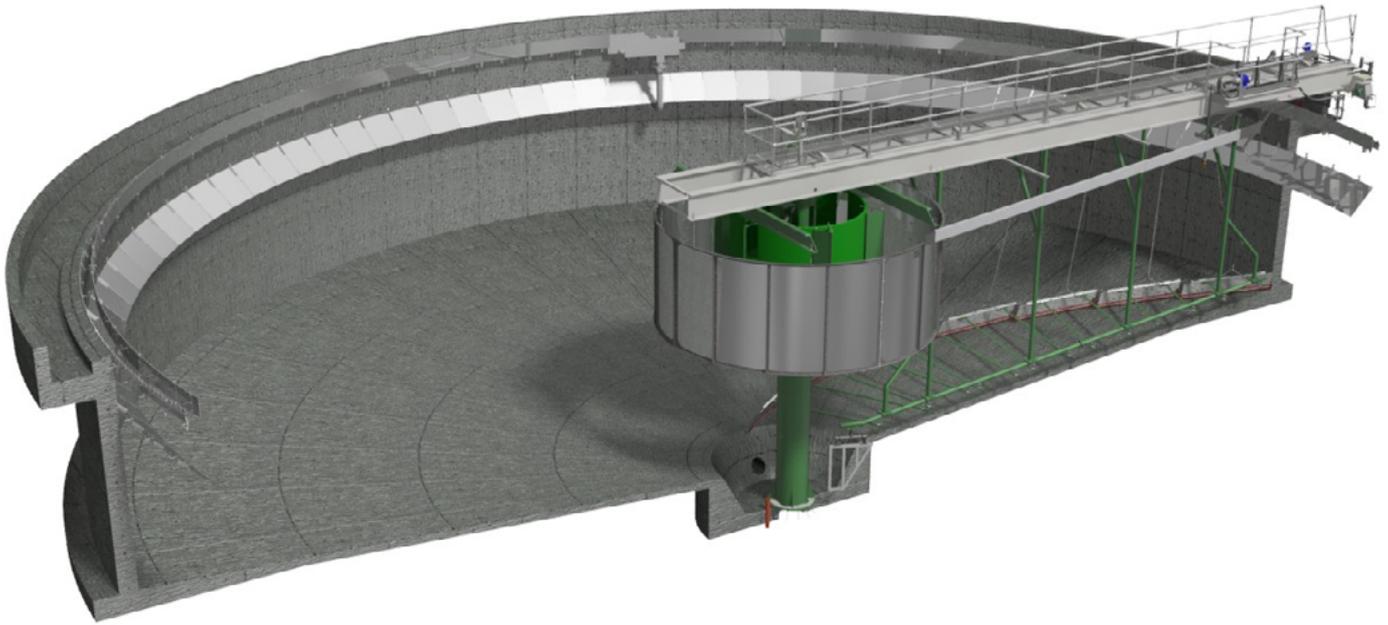
Municipal Sewage Treatment

- Primary clarification
- Secondary clarification
- Tertiary clarification

Seawater Desalination

- Backwash water recovery
- Lime softening





SYSTEM COMPONENTS

EdiGate®

Energy dissipation inlet, to reduce the turbulence of incoming wastewater

FlocWell™

Promotes flocculation and diverts sludge to the bottom of the clarifier

Centre Column

Central support of structure and inlet flow to clarifier

Peripheral Launder

Capturing of clarified effluent for discharge

Scum Discharge

Scum discharge point from underside of scum box

Sludge Removal

Options include LogMax®, VeeMax® and HeadMax®

Scum Scraper

Rotating blade on the surface to harvest scum

Sludge Outlet

Discharge point of settled sludge

Scum Box

Collection point of scum from the surface

SLUDGE REMOVAL

LOGMAX®

Logarithmic sludge plow designed for collection of lighter suspended sludges. Effective logarithmic angle range of between 15° and 45° and can travel at tip speeds up to 10m per minute.

VEEMAX®

Chevron pattern sludge plow designed for heavy, relatively viscous, sludges. The VeeMax® sludge plow can be readily adapted to sludge thickening with the addition of the picket fence module.

HEADMAX®

Suction design ensures rapid sludge removal and lower sludge blanket depth, reducing the potential of sludge rising. HeadMax® is available in both header and tube configurations.

OPTIONAL FEATURES



Scum Boxes

For collecting surface scum, the design varies with tank size and wind direction.



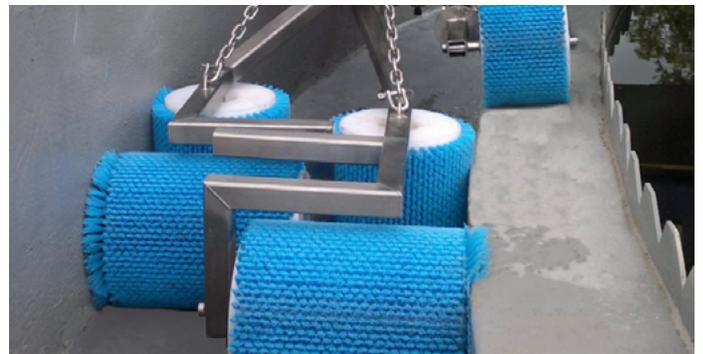
LaunderShield®

Eliminate light in effluent launders to reduce algal growth. Hinged with latches to prevent lifting.



Stamford Baffles

For eliminating density current flows that disturb regular flocculant settlement. Prevents sludge from rising up into the effluent trough.



CleanSweep® Launder Cleaning System

For removal of algae from the effluent trough, the brush system trails the rotating bridge & constantly brushes the through walls.



45M Diameter Rotating Bridge Clarifier with LogMax®

BUILD SPECIFICATION

In general Hydroflux Epco clarifiers are fabricated with wetted parts from stainless steel, and the bridge and general fabrication steel work above water line in grade 250 mild steel epoxy coated.

The following table summarises the major components and their most common material selection. Variations on the material specifications can be made, please consult Hydroflux Epco for further detail.

Section	Specification
Centre Column	Rolled Painted Mild Steel
Bridge	Painted Mild Steel
EdiGate®	Stainless structure with hinged doors
FlocWell™	Stainless structure with HDPE sheeting
Scraper System	Stainless steel 304/316
Squeegees	Neoprene
Scum Box	Stainless steel 304/316
V-Notch weirs and baffles	Stainless steel 304/316
CoverSweep®	Fibreglass, Aluminium or Stainless steel
Wheels	UHMWPE with or without metal hubs

REFURBISHMENT

Hydroflux Epco has undertaken numerous refurbishment projects, whereby existing clarifiers have been overhauled with new components as follows:

- New centre columns
- New FlocWell™ and EdiGate®
- New LogMax®
- Replacement scraper systems
- WHS compliance upgrades, with movement detectors & fall arrestors

“Hydroflux Epco can provide new clarifier internals and refurbish existing systems regardless of the clarifier tank design, geometry or OEM”



ENGAGE PROFESSIONALS

Engaging a professional wastewater treatment company to look after the entire wastewater project is a convenient, economical and hassle free option for industry.

Hydroflux Epco can provide all process design works, manufacture and fabrication, construction and even complete operation of your wastewater treatment plant.

When Hydroflux Epco provides complete solutions, we can either undertake a contract on a turnkey basis or work together with building services engineers and other construction professionals to ensure that the project is delivered smoothly, without interruption and on time.



Hydroflux is a sustainability driven organisation delivering unrivalled engineering, scientific and technological solutions for a more secure future, with a focus on water, wastewater, renewable energy, climate resilience and environmental protection.

Hydroflux Epco is an experienced municipal wastewater treatment company. Our goal is to provide high performing, sustainable energy efficient equipment and technology for maximising life cycle value and reducing operational costs.

Provides municipal clients and contractors a sustainable and diverse range of water and wastewater screening, solid liquid separation, sludge handling and biological treatment equipment and solutions from Australia and around the globe.

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