















Municipal Water and Wastewater Treatment

- Screens & Headworks
- Aeration
- Biological
- Clarification
- Filtration
- Enhanced Nutrient Removal
- Biosolids





Aqua Guard® UltraClean™

In-Channel Self-Cleaning Moving Media Screen

The UltraClean is built off the original Aqua Guard® filter element screen introduced over 40 years ago. Designed to increase capture rates and reduce maintenance, it continues to be the proven design with 1,000s of installations.

- Standard model (AGMN) and heavy-duty model (AGS)
- 3-dimensional element screen
- Decreased maintenance
- Improved cleaning resulting in increased capture rates
- Improved machine access
- Combine with Parkson's conveyor and washer compactor for a complete system



Aqua Guard® PF

Perforated Plate In-Channel Screen

The Aqua Guard® PF screen, built with the same proven quality as the Aqua Guard screen, uses perforated plate media to achieve efficient solids capture.

- Stainless steel perforated screen
- Available with 3mm and 6mm openings
- Spray and independent drive brush cleaning system
- Convex or optional step-shape perforated panels
- Treats flows up to 100 MGD
- Combine with Parkson's conveyor and washer compactor for a complete system



Aqua Caiman®

In-Channel Articulating Rake Screen

Parkson offers an array of in-channel screens to suit any need - high capture rates, low maintenance, economical, and manufactured in the USA. The Aqua Caiman® represents the next generation of articulating rake screens. This low maintenance screen provides unmatched durability and ease of operation.

- Capable of handling large solids
- No bottom bearings, no moving parts below water surface
- True-Track™ chain positioner allows for adjustment without a hoist
- True-Engage™ design allows for 100% rake engagement
- Combine with Parkson's conveyor and washer compactor for a complete system



Aqua Caiman® HD

Heavy-Duty In-Channel Articulating Rake Screen

The Aqua Caiman® HD incorporates the proven features and benefits of the original Aqua Caiman®, but is even more robust, designed to handle high flows and heavy solids with ease. A series of rakes coupled to heavy traveling chains form a flexible belt assembly to remove solids without the need for bottom bearings.

- Ideal for combined storm flow, trash rake, other high flow applications
- 1"- 4" bar openings to accommodate removal of large objects
- Heaviest chain link design in the industry
- Up to 1,000 lbs lifting capability and 50 ft. depth capability
- Combine with Parkson's conveyor and washer compactor for a complete system



Aqua Caiman® Vertical

In-Channel Articulating Rake Screen

Building off the proven Aqua Caiman® design, the Aqua Caiman® Vertical mounts vertically at 85 or 90 degrees and can be used in new or existing deep channels.

- Ideal for deep, tight installations or where additional rake engagement force is needed
- True-Grip™ chain retention system provides additional rake engagement
- Expulsionator™ deflector system aids in solids removal from rakes
- Bar openings from 1/4" up to 4"
- Combine with Parkson's conveyor and washer compactor for a complete system



Aqua Rhino™

In-Channel Escalating Screen

The Aqua Rhino™ represents the next generation of escalating screens. It is the most durable step screen on the market with a robust design and advanced drive systems.

- Economical high performance in a cost-efficient package
- Direct drive linkage system, no chain drive
- Reduced grit buildup with minimal toe space and optional wash bar
- Designed to be easily maintained
- Optional lifting bar to pivot the screen out of channel for routine maintenance
- Combine with Parkson's conveyor and washer compactor for a complete system



Hycor® Rotoshear®

Internally-Fed Rotating Wedgewire Drum Screen

The Rotoshear[®] is often utilized as a headworks screen and is a proven, high-capacity fine screening technology. It is frequently used for pretreatment and primary treatment to replace primary clarifiers, as well as sludge screening. EZ-Care[™] features include quick disconnect nozzles for spray wash and entirely lube-free drive system and trunnion wheels.

- Available in 12 models with custom features
- Made entirely of 304 and 316 stainless steel
- Can be equipped for automatic on and off operation
- Openings range in size from 0.01" to 0.10"
- Hydraulic capacities from 450 GPM to 13,000+ GPM
- Combine with Parkson's conveyor and washer compactor for a complete system



Hycor® Rotoshear® PF

Pre-Membrane Screen

The Rotoshear® Perforated Plate Drum Screen offers diverse media options to meet various screening needs. Its superior capture efficiency makes it the ideal choice for pre-membrane screening. The screens are outfitted with EZ-Care™ features, which reduce operator maintenance and affiliated costs.

- 1mm 3mm screen openings with perforated plate
- Headbox design easily handles flow variations and surges
- Drive chain requires no additional lubrication
- Combine with Parkson's conveyor and washer compactor for a complete system



Hycor® Rotostrainer®

Externally-Fed Rotary Wedgewire Screen

Introduced 30+ years ago, the Rotostrainer® is the original self-cleaning and externally-fed wedgewire screen. An oversized headbox with sufficient weir length allow for 100% bybass in overflow situations. The screen features a heavy-duty, corrosion resistant stainless steel chassis and wedgewire screening cylinder. The unit handles difficult solids very well, such as scum and oily and greasy materials.

- Opening sizes from 0.01" to 0.10"
- Single unit capacity up to 7,800 GPM
- Automatic doctor blade cleaner to facilitate solids removal
- External bearing and removable headbox simplify maintenance
- Combine with Parkson's conveyor and washer compactor for a complete system



Hycor® Helisieve® M

In-Channel Fine Screen

The Helisieve® M combines fine screening, conveying and dewatering in one. The heart of the system consists of a shaftless spiral with brush that conveys screenings to a dewatering zone for discharge. A patent pending adjustable press zone helps discharge problematic wipes when in EZ-Wipe™ Mode. Screened solids are dewatered and discharged into a dumpster/conveyor.

- Capacities up to 8 MGD with screen openings available in 1/8" or 1/4" diameter
- In-tank septage pre-treatment
- Full and easy access to compaction zone
- Available in 35 and 45 degree installation angles



Hycor® Hydroscreen™

Bi-Wave Static Screen

The Hydroscreen offers proven and reliable performance in liquid/solid separation. It is used as both a fine screen for pretreatment and grit dewatering equipment in wastewater treatment plants.

- Bi-wave panel design provides highest available capacity
- Opening sizes from 0.01" to 0.10"
- Hydraulic capacities from 70 GPM to 2,700+ GPM
- Reduces downtime and maintenance costs
- Combine with Parkson's conveyor and washer compactor for a complete system



Aqua WashPress®

Dewatering Screw Press

The Aqua WashPress® economically and effectively washes and dewaters screenings from in-channel and rotating screens in a variety of applications. A stainless steel housing encompasses an inner cylinder where washing, compacting and dewatering occur. Volume and weight are reduced prior to disposal.

- Available in 8", 10", 12" and 17" spiral diameters
- Reduces odors caused by entrained organics
- Custom length/height of discharge piping
- Combine with a Parkson screen for a complete screening solution



Hycor® Helixpress®

Shaftless Spiral Dewatering Press

The Helixpress® is the cost-effective solution for dewatering screenings collected by any type of screen. It's an all-in-one conveyor, compactor and dewaterer that reduces weight and volume, ultimately decreasing hauling and disposal costs.

- Designed to handle over 150 cu. ft./hr.
- Multiple screens can discharge into a single Helixpress unit
- Conveys solids up to 30 ft. and up to 20 degree angle
- Combine with a Parkson screen for a complete screening solution



Hycor® Helicon®

Shaftless Spiral Conveyor

Used in conjunction with other Parkson equipment, Helicon® provides a solids management system that conveys screened solids to washing or dewatering and ultimately, to disposal.

- Fully enclosed to contain odors and eliminate spills
- Complete stainless steel system
- Shaftless spiral provides clear, unrestricted throughput
- Combine with a Parkson screen for a complete screening solution



VariOx™

Jet Aerator

The VariOx[™] Jet Aerator utilizes a combination of motive liquid and blower air to create a high-energy jet plume for mixing and oxygen transfer. The jets can be operated without the blowers or with variable blower input while still maintaining a complete mix condition within the tank. This feature enhances process control and energy optimization.

- Ideal for biological nutrient removal applications where anoxic mix is required
- Fabricated from FRP with stainless steel supports
- Highly robust, operating life of > 25 years



TumbleOX™

Bioreactor

The TumbleOx™ Bioreactor utilizes an attached growth, non-activated sludge process to provide biological treatment of BOD and ammonia. Media housed in a partially submerged, rotating drum provides a large surface area for biofilm to grow. The unique media design provides aeration as the drum rotates and the media moves in and out of submergence.

- Ideal for lagoon effluent ammonia removal, industrial pre-treatment, small municipal and industrial biological treatment, and more
- Unique media design mixes and aerates without use of blowers
- D.O. levels achieved typically > 3.0 mg/L



IGNITE™

Integrated Nitrification Process

IGNITETM is a non-activated sludge solution for upgrading lagoon based treatment plants to achieve improved BOD and ammonia removal. The process utilizes a combination of Parkson's Biofuser® lagoon aeration system and TumbleOxTM Nitrification Reactor.

- Ability to achieve tighter BOD, TSS and ammonia permit levels with minimal upgrades
- Simple operation by treating with a non-activated sludge process
- Coordinated process design and guarantee- all equipment provided by Parkson



EcoCycle SBR™

Sequencing Batch Reactor

The EcoCycle SBR™ is a batch treatment process where all treatment steps occur within the same reactor. A typical system includes two or more treatment tanks so as one tank is filling, the other tank(s) are processing and clarifying. A normal treatment cycle will include fill, react, settle, decant, and idle steps.

- Ideal for biological nitrogen and phosphorus removal
- PLC control system continuously monitors oxygen levels to optimize energy efficiency
- Small footprint with no separate clarifiers or return sludge piping
- Available in batch feed or continuous fill designs (PISCES™ CFSBR)



Biolac®

Long Sludge Age Process

The Biolac® System is a proven, long sludge age, activated sludge process that reliably provides complete nitrification in a very simple-to-build plant.

- Cost-effectively upgrade existing lagoons to nitrification
- Simple total N removal with cyclic aeration using Wave-Ox[™] Plus ammonia based control, eliminating MLSS recycle and separate stages
- Biological P removal with Bio-P zone
- Extremely stable and simple to operate
- 40+ day solids retention time (SRT) ensures maximum stability and minimal production of biosolids



DynaCanter™

Decanter

The DynaCanter™ is a floating style decanter that is used to remove treated effluent (Model ED) or supernatant (Model SD) from the upper portion of the treatment tank. The decanter utilizes a flex joint to allow vertical articulation as water levels change. Water is collected from below the surface to preclude floating material.

- Ideal for sequencing batch reactors, aerobic digester thickening
- No electro-mechanical components located inside the tank
- FRP and stainless steel construction provide years of maintenance-free operation



Lamella®

LGS and LGS(T)

Parkson's legacy Lamella® Gravity Settler (LGS), Lamella Gravity Settler Thickener (LGST) and Lamella Plate Pack designs are the most economical sedimentation options preferred by engineers and designers for the superior, high-capacity patented EcoFlow® design. Lamella enables municipalities to process 25% more throughput for the same footprint of traditional units.

- Filter backwash water
- Membrane backwash water
- Enhanced nutrient removal (ENR); P-removal
- Primary clarification
- Customized flocculation tanks
- Compact designs; 90% smaller footprint than sedimentation basins



Plate Pack

Clarification Technology with EcoFlow®

Parkson's efficient and proprietary flow distribution design guarantees our plate pack clarifiers operate with the lowest hydraulic mal-distribution in the industry. All plate pack units are sold with the patented Lamella EcoFlow® technology, allowing engineers to design at 100% of plate utilization.

- Compact designs; require up to 1/10th lower sedimentation basin footprint
- Ideal for new municipal installations or expansions
- Variety of plate pack MOC, providing unmatched operating and cost flexibility
- High-capacity plate settlers ranging from 5 MGD to 150 MGD



DynaSand®

Continuous or Intermittent Backwash Filter

The DynaSand® filter delivers improved effluent quality over conventional filter systems while simultaneously lowering treatment chemical consumption, increasing net water production and saving energy. The DynaSand is available with the EcoWash® upgrade for continuous filtering with intermittent sand washing.

Proven performance and reliability for:

- Water reuse, Title 22
- Ultra-low phosphorus removal
- Denitrification
- Suspended solids reduction



DynaSand D2®

Advanced Filtration System

The DynaSand D2® filter achieves enhanced effluent quality by providing a two-stage filtration system when targeting water quality, originally thought only possible via membrane filtration.

Proven performance and reliability for:

- Desalination
- RO pretreatment (SDI < 3)
- Ultra-low phosphorus
- Ultra-low nitrogen

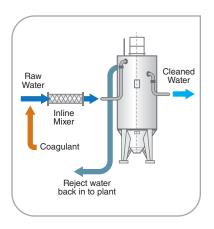


DynaSand® Denite Filter

Enhanced Nutrient Removal Filtration System

DynaSand® Denite provides a single-step solution to remove nitrates (NO3) and nitrites (NO2) in order to meet low effluent nutrient limits. The DynaSand filter achieves denitrification performance with less energy and in a smaller footprint than alternative conventional technologies. When combined with EcoWash®, significant operational cost savings associated with supplemental carbon are also realized.

- Effluent TN limits < 3 mg/L
- Simultaneous total N and P removal
- Low operating costs
- Small footprint



DynaSand® CCF

Continuous Contact Filtration

The DynaSand® Continuous Contact Filtration (CCF) process makes it possible to carry out coagulation and separation directly in the filter bed to produce very highquality filtrate. Chemical dosing equipment introduces coagulation chemicals into the feed line of the filter. A static mixer ensures proper mixing of chemicals and raw water. Coagulation, flocculation and separation then take place within the filter bed.

- Eliminates flocculation tanks
- Eliminates settling and backwash tanks
- 85% less equipment volume with these eliminations
- No 'special' media required



Hycor® ThickTech™

Rotary Drum Thickener

The ThickTech™ Rotary Drum Thickener (RDT) is the industry leading sludge thickener. Its performance is unmatched, with sludge volume reduction of 90% and up to a 98% capture rate - all achieved with very low polymer use. Fabricated of stainless steel and utilizing a woven wire mesh screen, it is engineered to provide years of reliable service.

- Low requirements for horsepower, water consumption and polymer usage
- Compact footprint
- 20+ years of operation and hundreds of installations
- Used as a pre-thickener to increase capacity of other dewatering equipment



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