Powerful Solutions for Intake Screening
Hydrolox Traveling Water Screens
I am extremely pleased with my experience of working with Hydrolox—that’s the best part of the whole project. I can’t think of any area that needs improvement from a customer standpoint.

—Danny Vicknair
Maintenance Technician, Entergy Corporation
Innovative technology makes the difference.

HydroloxF™ engineered polymer traveling water screens are changing the way facilities think about intake screen performance. Proven to exclude debris and reduce harm to aquatic life, these effective, longer-lasting solutions are easy to install, require virtually no maintenance, and address the needs of water-extracting facilities across a wide range of industries.

We offer single-point-of-contact project management services to help eliminate bottlenecks during screen installation. Our team supervises the entire process, working with your preferred subcontractors and in-house crew (as needed) to help you minimize downtime while optimizing in-house resources, screen performance, and screen life. This process can include initial site surveys to develop scope of work; project meetings; and factory acceptance testing.

All HydroloxF screens are backed with industry-leading three-year or four-year warranties (warranty terms determined by specifics of screen, application, and installation). In addition to comprehensive on-site support before, during, and after installation, we also provide ongoing expert technical support and award-winning customer service.
The Engineered Polymer Concept

Hydrolox traveling water screens are made from engineered polymer modules assembled in an interlocked, bricklayed pattern with full-length hinge rods—an inherently strong design. These modular components allow for fast, on-site maintenance, eliminating the need to replace the entire screen. All polymer components are molded in-house, and we maintain an extensive inventory in order to meet both your normal and emergency delivery needs.

Coupled with an innovative frame design, Hydrolox screen systems deliver significant, measurable advantages over conventional chain-and-basket steel screens. Hydrolox traveling water screens have no side chains, no submerged moving parts, and are designed to remain in the water year-round, with no need for cranes or divers in most cases.

### Longer screen life
Engineered polymer screens are proven to last up to five times longer than steel. A positive-drive system virtually eliminates uneven wear and mistracking.

### Virtually maintenance free
Innovative system eliminates side chains (to reduce overall weight) and is free of submerged moving parts. Maintenance and downtime have all but been eliminated.

### Run 24/7 with lower operational costs
The modular screen design allows repairs to be made at deck level without needing to lift the screen, thereby lowering operational costs. Screens are designed to remain in the water and operate 24/7, year-round.

### Less biofouling
Hydrolox screens' non-adhering surfaces are smooth, easy to clean, and far less prone to biofouling than metal screen options.
Better cleaning and debris removal
System features an enhanced spray bar design with excellent mesh coverage to facilitate cleaning and debris removal. Stringy debris are less likely to wrap or cling to screen material.

Improved safety
Heavy and difficult to handle, steel materials (especially baskets) threaten worker safety. Hydrolox screens’ engineered polymer material and compact screen design reduce system weight by up to 40%.

Zero corrosion with reduced ice adhesion
Engineered polymer material does not corrode and is less likely to experience ice adhesion.

Proven in field and lab tests
Field and laboratory tests have confirmed that Hydrolox traveling water screens offer outstanding protection to aquatic life.

Our steel band screen was expensive to maintain, and it caused a lot of problems. The Hydrolox screen has been a problem-solver. The downtime, expenses, and cleaning difficulties we experienced previously are no longer an issue. I would recommend Hydrolox screen technology to any power generation facility.

—Stephen Crooks
Project Engineer, Scottish and Southern Energy (SSE)
Series 6000 Vertical Traveling Screens

Series 6000 Vertical Traveling Screens **substantially reduce the total cost of ownership** for cooling water intakes and similar screening applications. These screen systems can be manufactured to order in virtually any width or length and can be configured for either debris handling only (vertical) or debris and fish handling (cantilevered). Available in either mesh top or flush grid, they are designed to operate 24/7, year-round.

- Positive drive system distributes load across entire screen width. Eliminates challenges of edge-driven systems (e.g., mistracking, uneven wear) and extends system life.
- Patented debris-handling flights withstand impact from most debris without damage.
- Ristroph-style fish collection bucket complies with fish impingement and entrainment regulations.
- Patented boot seal with static shoe prevents aquatic life/debris from entering through bottom side of screen. Absence of submerged moving parts eliminates common maintenance requirements.

**Industries**
- Power Plants (Fossil Fuels, Nuclear, etc.)
- Oil Refineries
- Chemical Plants
- Pulp & Paper Mills
- Hydroelectric Power
Stainless steel chevron carryway eliminates guesswork, minimizes unscheduled maintenance.

Frames fit into existing guide slots; no need to modify existing intake structure.

Deck level indicator ensures accurate fish delivery.

Optimized spray bars virtually eliminate debris carryover.

Proprietary tensioning system with take-up arm removes slack, actively maintains correct screen tension.

Cantilevered head section ensures accurate fish delivery.

Fish return trough

Debris return trough
Series 1800 Vertical Traveling Screens

Featuring a mesh top design, Series 1800 Vertical Traveling Screens can be manufactured to order in virtually any width or length and can be installed at a variety of angles to facilitate debris removal. They have proven especially beneficial in overcoming common screening challenges for facilities in irrigation districts, fisheries, and drinking water extraction sites.

Patented debris-handling flights withstand impact from most debris without damage.

Fish-friendly debris pegs remove debris in high cross-flow environments.

Industries

Municipal Water Intakes
Run of River Hydro
Pumping Plants
Irrigation Diversions
Waste Water Screening

Take-up screws raise or lower drive shaft to tension belt.

Debris return trough (also available: debris takeaway conveyor option)
Stainless steel chevron carryway

Frames fit into existing guide slots; no need to modify existing intake structure.

Positive drive system distributes load across entire screen width. Eliminates challenges of edge-driven systems (e.g., mistracking, uneven wear) and extends system life.

Optimized spray bars reduce debris carryover.

Fixed return half-pipe

Bottom seal
Series 1800 Horizontal Traveling Screens

Series 1800 Horizontal Traveling Screens help facilities in irrigation districts, fisheries, and drinking water extraction sites overcome common screening challenges. Suitable for irrigation diversion and smaller, low-flow intakes, these screens are compliant with NOAA fish-protection screening criteria from anadromous species and can be operated using solar power.

- **Scraper bar removes debris from screen.**
- **Automatic spring tensioning system with deck-level indicator minimizes unplanned maintenance.**
- **Minimal dead space.** Filters water 4 in (101.6 mm) from the bottom of screen. Ideal for screening in wide, shallow waterways.
- **Slotted bottom channel allows water to flow through screen, preventing debris buildup.**
- **Durable 304-grade stainless steel frame**
- **Hold-down tabs prevent screen misalignment.**
- **Smooth, non-corrosive engineered polymer screen surface enables easier debris clearing and longer screen life.**
Compliance

Our screen systems ensure full compliance with water screen regulations for fish protection. This applies to regulations in both North America and the European Union and includes: Section 316(b) of the Clean Water Act; NOAA and NMFS criteria; the 2009 Eels Regulations (UK); Drinking Water Inspectorate (DWI) regulations; and the 2015 Water Framework Directive (EU).

“Best Technology Available” for 316(b)

Section 316(b) of the EPA’s Clean Water Act requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impacts—impingement and entrainment.

Under the terms of the rule, Hydrolox traveling water screens qualify as a BTA for minimizing impingement mortality (“modified traveling screens”). Specifically, the EPA noted that Hydrolox screen designs have “shown promise in reducing impingement mortality.”

Compliance with the Eels Regulations

The Eels Regulations require companies in the UK who utilize water extraction to meet a threshold of 40% eel “escapement” by 2015.

Hydrolox traveling water screens offer the ideal solution for Eels Regulations compliance. Independent testing with a well-known research organization in the UK has identified Hydrolox as the best technology for fish protection available on the market. The Environment Agency has identified Hydrolox traveling water screens as a solution for those facilities managing glass eel, elver, and adult yellow/silver eel populations. In many cases, retrofitting to Hydrolox is an option.
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