

## Water Debris Capture Solutions



# Capture debris and a competitive edge.

(HCS) to keep their water intake environments free from debris — and the costly problems debris can cause.

Our innovative debris capture and removal solutions, including trash racks and trash rakers, give companies a competitive advantage by helping them to protect expensive equipment, increase efficiency and reduce downtime.

Easy to install, use and maintain, our durable products have been successfully utilized

- Power generation
- Pulp, paper & steel mills
- Municipal water intakes
- Water parks
- Custom applications

#### We use what we sell, every day.

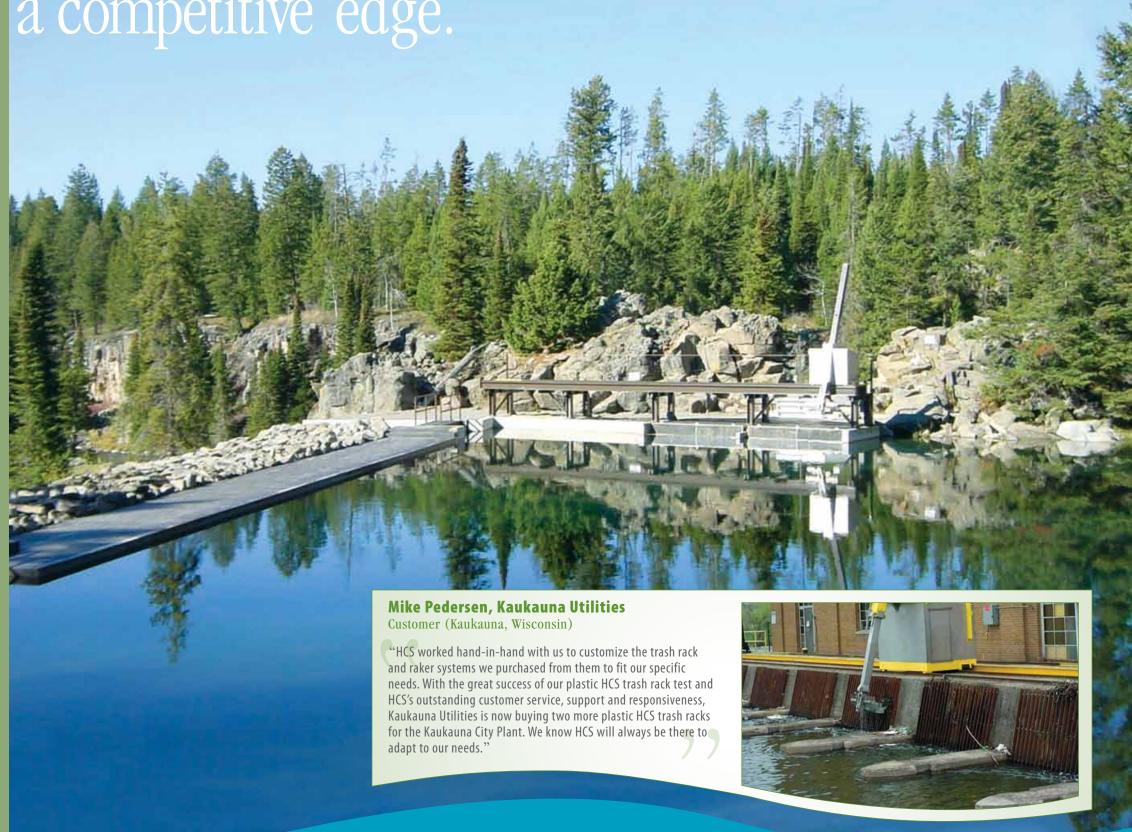
At HCS, we not only manufacture and sell our American-made products – we also use daily in-field research, hands-on experience and quality control.

#### Ideal for a variety of applications:

• Culvert and drainage underflows

- Intake screens

- Flow straighteners







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## Trash Racks

#### Designed to be rust-free and corrosion-free. FOREVER.

As a vital part of your water intake system, HCS trash racks capture harmful water debris and prevent it from reaching — and damaging — your equipment.

Made from high-density polyethylene (HDPE) that will never rust or corrode, our rugged trash racks have been engineered to provide years of service — and an excellent ROI.

#### Lightweight design, heavy-duty performance.

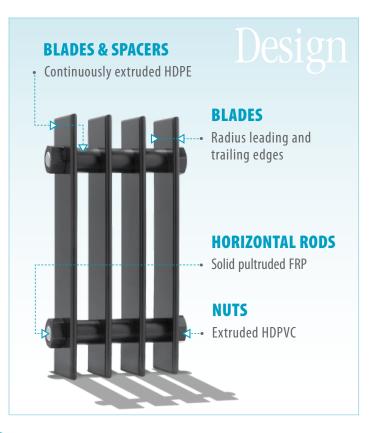
Unlike typical metal trash racks, the blades and spacers on our HDPE trash racks will never need recoating, making them practically maintenance-free. This unique material also resists marine growth, such as zebra mussel fouling, and prevents frazil ice and anchor ice from forming in cold climates.

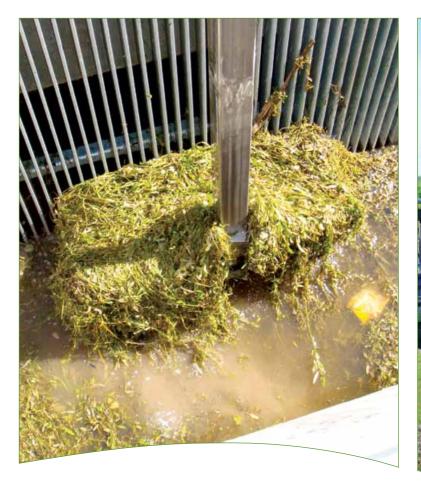
The rack blades feature radius leading and training edges to reduce flow resistance, increasing efficiency by improving water passage to turbine units and pumps. Horizontal rods, made of solid pultruded FRP, provide high-impact strength against heavy debris.

Because our HDPE trash racks weigh much less than metal racks, they are remarkably easy to install, arriving fully assembled and ready for installation.

#### **Count on performance:**

- High-impact strength
- Corrosion- and vibration-free
- Resists marine growth and zebra mussels
- Prevents frazil ice adhesion and the formation of anchor ice
- Fully assembled and ready for installation
- Lightweight and easy to maintain
- Improves water passage to turbine units and pumps







## Trash Rakers

#### Making cleanup fast and easy.

Hydro Component Systems' patented\* electro-mechanical (no hydraulics) trash rakers finish the job by efficiently removing captured debris from a wide variety of new or existing water intakes.

Tested under full-rated load conditions prior to shipment, HCS trash rakers provide years of flawless performance even under extreme weather conditions.

In fact, HCS trash rakers are the only rakers able to operate in hurricane winds of up to 150 mph.

#### Rake in the advantages:

- Quick cycle time
- Positive trash raker engagement
- No hydraulics, therefore no hoses, reservoirs or exposed cables
- Simple operation
- High-load capacity
- Easy to maintain
- Operates in winds up to 150 mph

#### Different rakers for unique needs.

HCS offers a range of manual or fully-automatic trash rakers that can be customized to meet the specific needs of your facility. All trash rakers offer two control options: handheld radio-controlled pendant at water intake, or fully-automated system that can be activated locally at the intake or from a remote location.

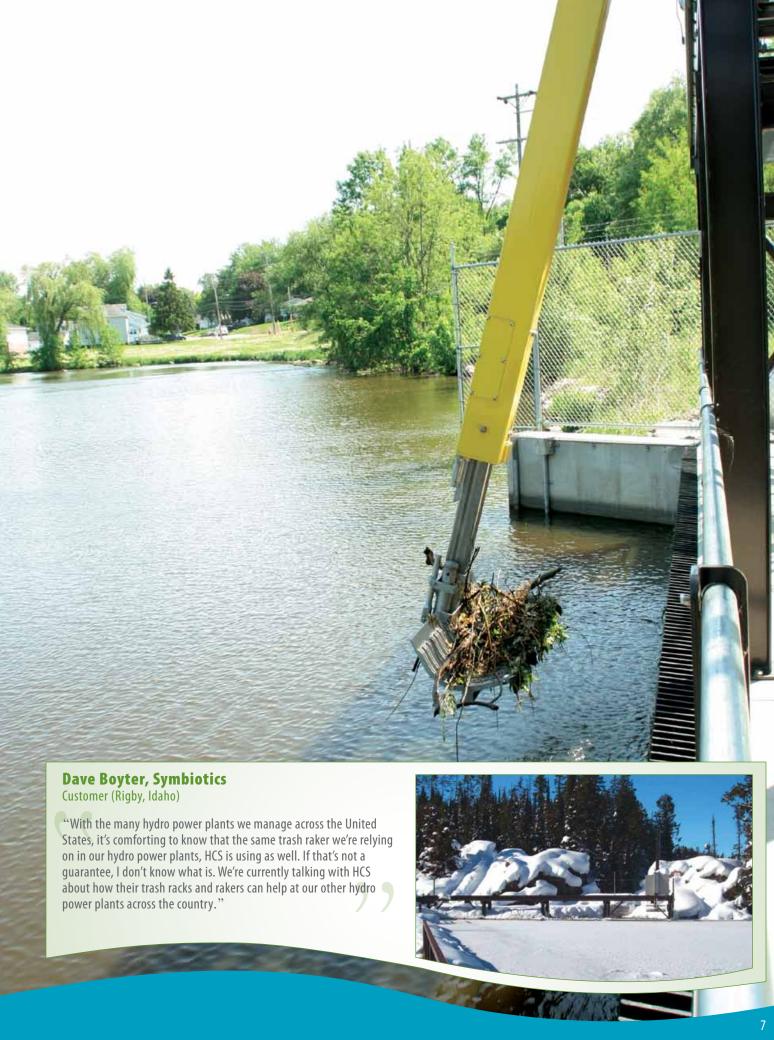
**Standard Manual Trash Raker** — Travels in a straight line, offering simple operation with high-load capacity.

**Dual Rakers** — Collect twice as much debris in half the time at large intakes (over 100-feet wide). If one raker is disabled, the second raker will automatically take over the cleaning of the entire rack.

**Articulating Raker** — Navigates on a track to handle curves, allowing for job site customization.

**Pivot Raker** – Turns 360 degrees on a turntable bearing and features a cam-actuated boom, making it ideal for tight-space applications.

\* U.S. Patent No. 7,815,811



#### We Use What We Sell, Every Day.

For the past 35 years, Hydro Component Systems has been a pioneer in debris capture solutions for water intake environments.

As the manufacturer of the products we sell, HCS has complete control of every aspect of them, from molding and extruding, metal fabrication and specialty machine engineering, to assembly operations, quality assurance and product delivery.

We understand our customers' needs because we use our patented trash rakers and trash racks every day at our own hydroelectric plants. We expect the same dependable, high performance as you do.



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