

DUPERON® SELF-CLEANING TRASHRACK

The SCT is designed to perform in the toughest applications where uninterrupted waterflow is critical. The heavy-duty design makes it ideal for open channels that experience high velocities, high flows, and severe debris conditions. When looking to safeguard a community from floodwaters or ensure process resiliency, the SCT is a robust option for absolute flow protection and unmatched reliability.

THE DUPERON DIFFERENCE

PERFORMANCE IN THE HARSHTEST ENVIRONMENTS

- *With a lifting capacity of 3000 lbs, the SCT can easily handle heavy vegetation, large refuse, logs and even automobile engines and washing machines*

RELIABLE OPERATION

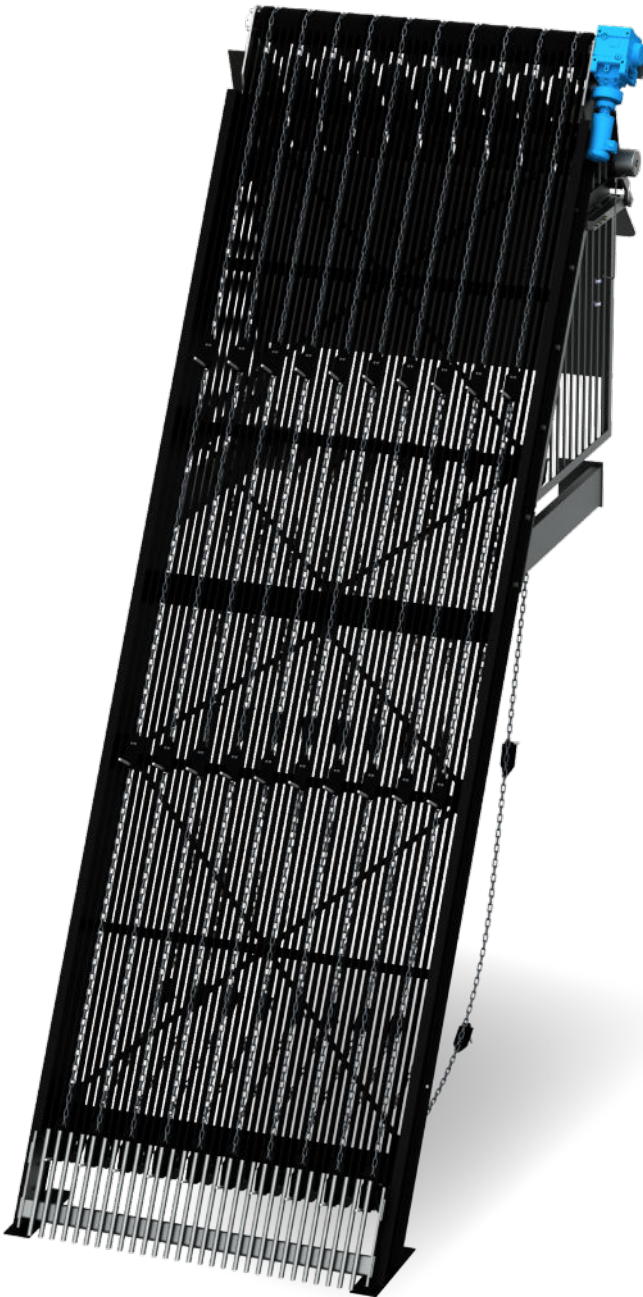
- *Can stand idle for long periods, yet reliably respond when a storm or debris event occurs*

ENSURES CONTINUOUS WATERFLOW

- *Multiple chains across the intake clean all of the screen all of the time. Additionally, the front-cleaning, rear-return operation provides constant flowable area to keep water moving*

AUTOMATED FOR SAFETY

- *No operator intervention required during storm or debris events. Maintenance is typically performed at the deck*



DUPERON® SELF-CLEANING TRASHRACK

The Self-Cleaning Trashrack is a simple front-cleaning, rear-return technology engineered to manage the most challenging open channel applications. Reliability is the key issue for automatic trash rake systems. The SCT provides reliable intake protection when its needed most so pumps and turbines can operate uninterrupted.



THE SCT RELIABLY ENSURES UNINTERRUPTED WATERFLOW IN HIGH VELOCITIES, HIGH FLOWS, AND SEVERE DEBRIS CONDITIONS

It was invented to offer a simple trash rack that solved the screening challenges of open channels, intakes, and rivers such as:

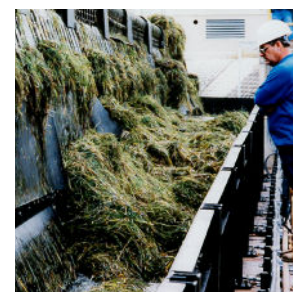
- Long cycle times across intakes that don't keep up during storm or debris events when they're needed most
- Submerged sprockets that were subject to fouling and jamming
- Static trashracks that required workers to manually clean, often in dangerous weather events and hazardous physical conditions
- Unreliable and maintenance-intensive designs



HOW IT WORKS

The Duperon SCT technology incorporates the natural dynamic of mat formation to optimize removal efficiencies.

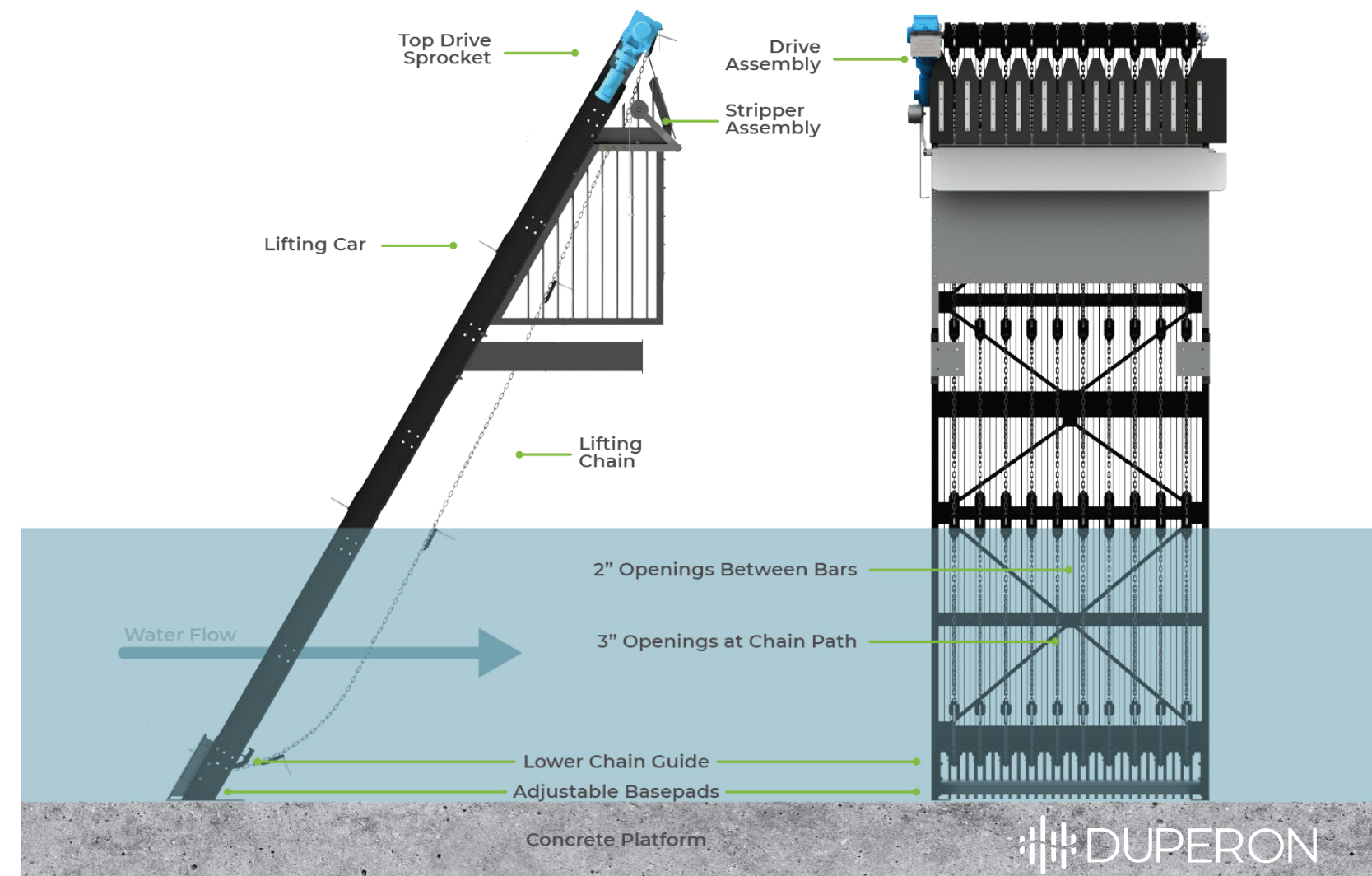
1. The water flow forces debris against the bar screen
2. Large and small debris mat together, creating a head differential. The head differential activates the chain drive
3. Lifting cars are conveyed from behind the rack, under the matted debris, carrying it slowly up the face rack and over the top of the unit.
4. Heavy rubber panels located behind the top of the rack remove the debris from the cars.
5. Debris is deck-discharged behind the rack or conveyed to a storage area for easy removal.



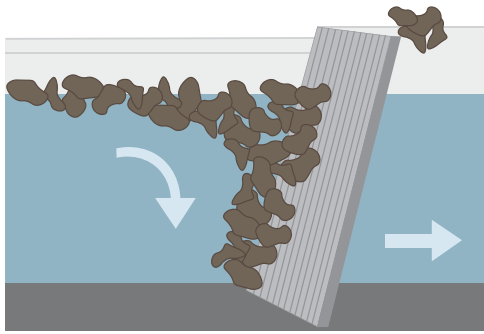
- Robust frame and drive system with 3,000 lbs lifting capacity
- Grade G80 electrically galvanized alloy lifting chains for strength and longevity
- Each chain operates independently, even if one chain strand is out of service, cleaning will continue
- Simple self-tripping mechanism allows debris too large or bulky to trip the lifting car rather than shutdown operation (see back page for description)
- No underwater sprockets: the return guide controls positioning of the chain with minimal contact
- Multiple chains with multiple lifting mechanisms across the entire intake, clean all of the screen, all of the time

SELF-CLEANING TRASHRACK FEATURES

- Front-cleaning, rear-return: lifting fingers do not have to penetrate the upstream debris to engage into the bar screen
- Continuous upward cleaning prevents debris from sliding down, accumulating, and blocking screen - water flow is ensured
- Unphased by large debris: lifting fingers work in unison across the intake to pick up large debris and "roll-off" discharge without top interference



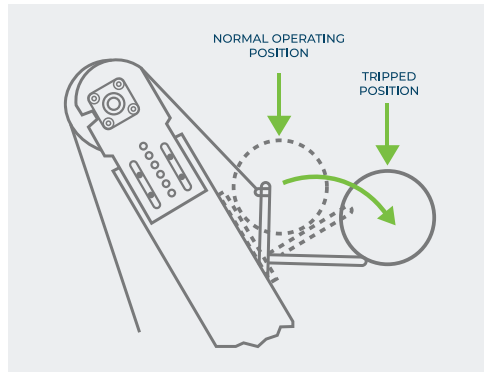
OUR SOLUTIONS ARE SIMPLE



DISRUPTING ROLLING DEBRIS

When a screen becomes blocked at the surface, the debris follows the current, begins to roll and accumulate where there is still open flow. This can quickly cause the screen to become a dam.

The front-cleaning, rear-return SCT provides continuous upward motion across the entire screen. This uninterrupted action assures that debris will be removed at a rate easily handled at the deck. Clear water flow beneath surface debris ensures that it can linger for extended periods with no impact.



SELF-TRIPPING MECHANISM

The lifting chain tension is adjustable. When the chain is set properly, the lifting cars will self-trip, drop their load and reset automatically in an overload situation.

Typical to Duperon design simplicity, this non-mechanized overload protection assures continued operation. During debris or storm events, this type of system resiliency is essential to protecting communities and or downstream processes.

PRODUCT DATA

UNIT WIDTH	5 ft to 10 ft
UNIT LENGTH	10 ft to 100 ft
ANGLE OF INSTALLATION	30 degrees from vertical
BAR OPENINGS	2 in - 3 in
MATERIALS OF CONSTRUCTION	A36 Steel with Duperon® standard coating or SSSL available CL40 Iron Cars, coated 304 SSSL Lifting Fingers
CLEANING FREQUENCY	7 ft per minute
LIFTING CAPACITY	3,000 lbs
TYPICAL MOTOR	1.5 hp 1ph & 3ph options available
STANDARD CONTROLS	Packages range from simple start/stop to full automation Motor overload protection provided
APPLICATIONS	<ul style="list-style-type: none"> Hydroelectric, co-generation, nuclear power plants, flood control, stormwater, water intakes, pump stations, diversion dams Other open channel applications Sites that receive large debris, or large volumes of debris and high velocities