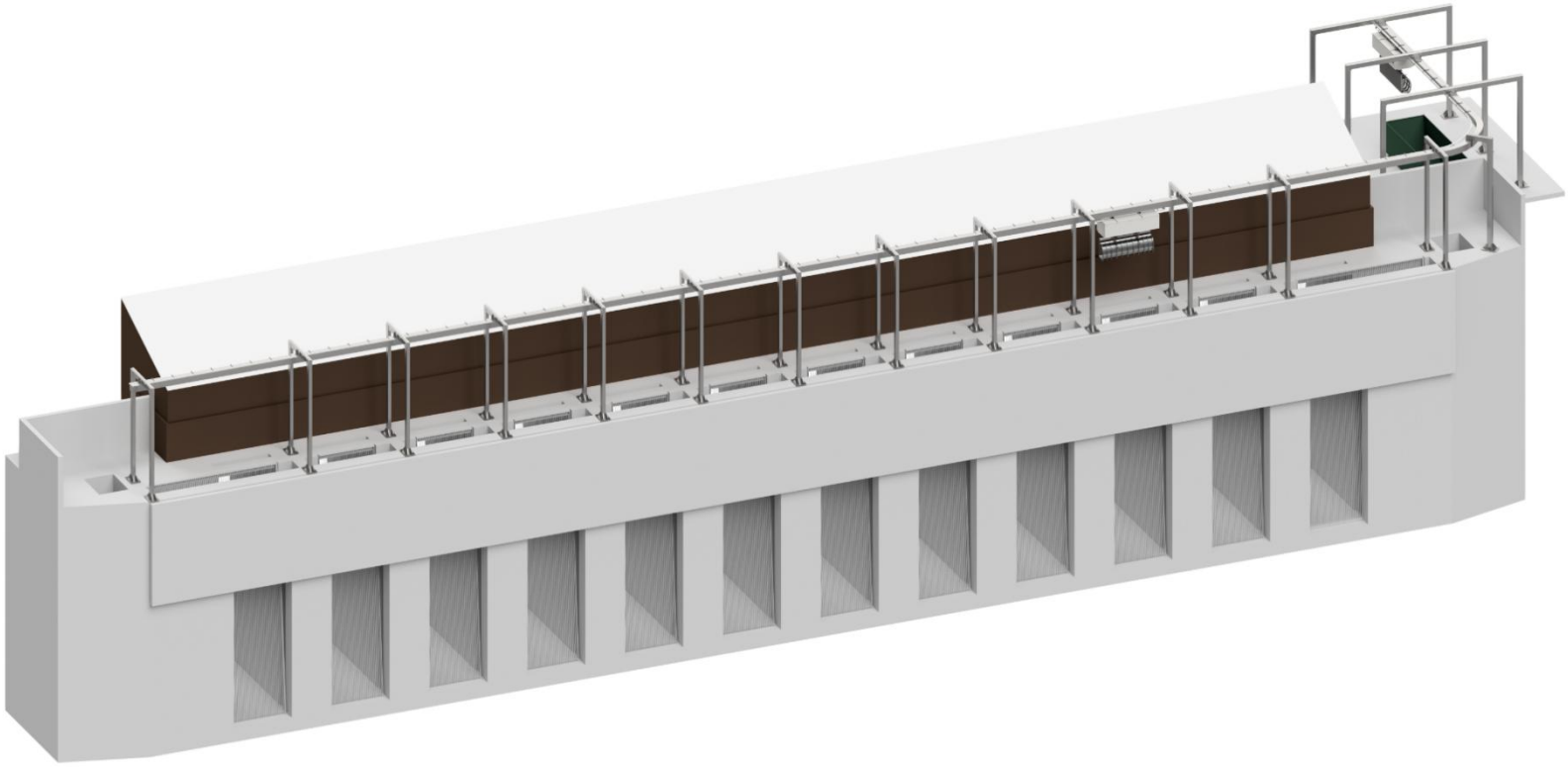
WTR® Hydro Talon Rake™

Coarse Trash Rack Cleaning



WTR® WATER SCREENING SOLUTIONS

AN ATLAS SSI, INC. COMPANY

Hydro Talon Rake and Trash Racks

WTR's Hydro Talon Rake (monorail based automatic raking machine) and Trash Racks are one of the most economical means of protecting downstream equipment and cleaning coarse Trash Racks. Talon Rakes can be used in all types of applications where debris accumulation on the Trash Racks is common, and protection of downstream equipment is essential. Applications include power plants (hydro, fossil and nuclear), flood control pumping stations and numerous other plant types. The Hydro Talon Rake may be installed on new plants or retrofit to an existing site where access to the Trash Racks is not restricted.

Coarse debris in the flow builds up on the Trash Racks, creating high differentials, causing a loss of efficiency. Debris such as logs, sticks, leaves, weeds, etc. needs to be periodically removed. The Hydro Talon Rake is designed to automatically clean Trash Racks and deposit debris at a designated dump location. The dump location is variable and can be off the deck or some distance away. The raking cycle can be started automatically by either differential control, built in timer, plant DCS or manual initiation. A handheld wireless manual remote control is also provided to accommodate specific area cleaning or unusual debris removal.

Talon Rakes utilize no permanently submerged moving components. Rakes are typically supported by columns (single or double leg) at various locations for adaptation to new or existing sites. This provides a clear deck and allows direct discharge into debris receptacles, avoiding conveyors or rehandling debris. On the start signal, the Talon & Carriage will travel to the first cleaning point, clean a specific area, travel to the discharge location, dump and return to the next cleaning point. The process is continuous until all designated areas are cleaned. Pauses for drainage can vary based on debris and site conditions.

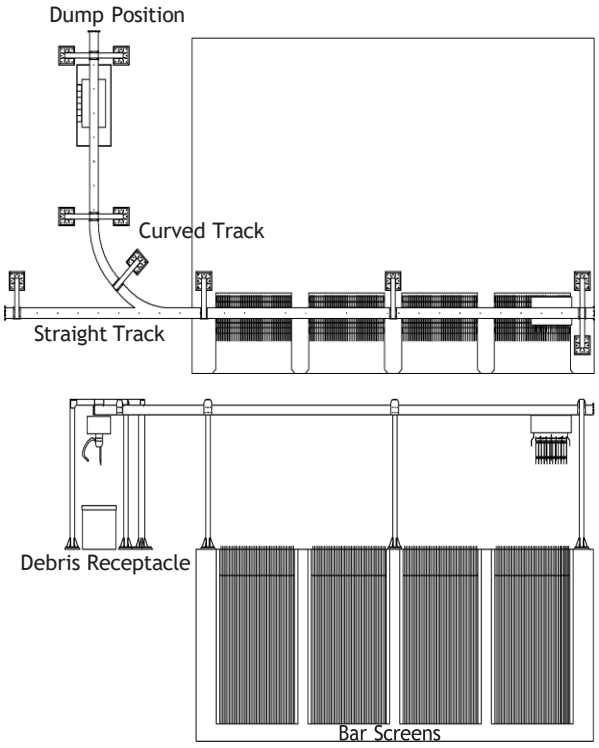
HMI touch screen control allows for various areas to be turned on / off for cleaning. Other options such as partial depth cleaning for floating debris or site-specific conditions are available with user friendly interface. Options can be provided for distributed dumping across debris receptacles.

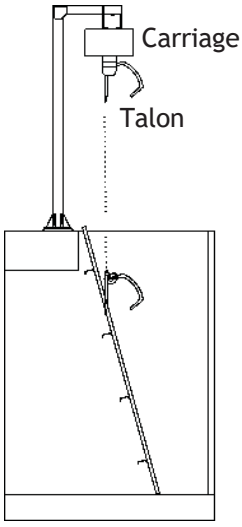
•Straight Track •Curved Track •Inclined Racks •Vertical Racks

Hydro Talon Rake and Trash Racks

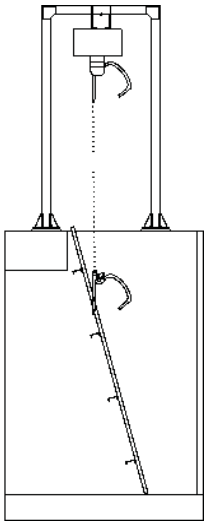
Features:

- Trash Racks are built to site specific channel dimensions; typical single screens are 5ft. (1.5m) to 20ft. (6m) wide. Trash Racks may be individual (fixed or removable) or continuous width with specialized supports.
- Bar Screen materials can be Carbon Steel (galvanized or epoxy coated) or Stainless Steel (304L, 316L, Duplex, Super Duplex or other).
- Talon Rakes use no permanent moving components below the deck or in the water. Any maintenance required is performed above the deck.
- Talon Rake heads can be Galvanized, Stainless Steel or Aluminum Bronze (for hazardous areas).
- Support structures (monorail and columns) are typically hot dip galvanized steel. Stainless Steel is also available.
- Talon Rakes uses a dedicated carriage electrification system (festoon system or electrified rail).
- Talon Rakes provide positive debris retention by hydraulic closure utilizing environmentally safe / biodegradable fluid.
- Specially shaped monorail provides high strength and protection of drive components from environmental elements.
- Advanced controls via HMI touch screen interface with PLC can provide instant change of various control settings (bays on/off, partial depth, etc.), viewing of component status, run times, maintenance requirements and faults.
- Wireless remote control allows manual movement of rake for special debris, loading of debris or maintenance.





Single Leg Column


Double Leg Column

Model No.	TR-1500		TR-3000		TR-5000		TR-6000	
	US	SI	US	SI	US	SI	US	SI
Capacity Work Load	1,500 Lbs.	680 kg	3,000 Lbs.	1,360 kg	5,000 Lbs.	2,268 kg	6,000 Lbs.	2,727 kg
Min. Clear Bar Space	1.50 inch	38 mm	1.50 inch	38 mm	2.00 inch	51 mm	2.00 inch	51 mm
Talon Rake widths	8.0 ft.	2.4 M	10.0 ft	3.0 M	15.0 ft.	4.6 M	15.0 ft.	4.6 M
Talon Rake weight	1,200 Lbs.	544 kg	1,900 Lbs.	862 kg	2,400 Lbs.	1,088 kg	3,000 Lbs.	1,364 kg
Hoist Motor Size	5 hp	3.7 kW	10 hp	7.5 kW	12.5 hp	9.3 kW	12.5 hp	9.3 kW
Hoist Speed	60 ft/min	18.2 M/min	60 ft/min	18.2 M/min	50 ft/min	15.2 M/min	30 ft/min	9.1 M/min
Traverse Motor-straight	1 hp	0.75 kW	1.5 hp	1.1 kW	2.0 hp	1.5 kW	2.0 hp	1.5 kW
Traverse Motor-curved	2 @ 1 hp	2 @ 0.7 kW	2 @ 1.5 hp	2 @ 1.1 kW	2 @ 2 hp	2 @ 1.5 kW	2 @ 2 hp	2 @ 1.5 kW
Traverse Speed - single	60 ft/min	18.2 M/min	45 ft/min	13.7 M/min	30 ft/min	9.1 M/min	30 ft/min	9.1 M/min
Traverse Speed - dual	60 & 120 ft/min	18.2 & 36.4 M/min	45 & 90 ft/min	13.7 & 27.4 M/min	30 & 60 ft/min	9.1 & 18.2 M/min	30 & 60 ft/min	9.1 & 18.2 M/min

Hydro Talon Rake and Trash Rack Data

Hydro Talon Rake and Trash Rack Sizing Data

Plant / Site Name _____

Site Location _____(City, State, Country)

Water Source ☐ Pumped Storage ☐ River Head ☐ Run of the River ☐ Other_____

Number of Channels _____

Flow Rate per Channel _____ CFS _____ M^3/sec

Channel Width (each) _____ Feet _____ Meters

Total Width of Intake _____ Feet _____ Meters

Deck Elevation or Depth _____ Feet _____ Meters

Hi Water Elev. or Depth _____ Feet _____ Meters

Lo Water Elev. or Depth _____Feet _____ Meters

Invert / Bottom Elev. _____ Feet _____ Meters

Desired Clear Bar Space _____ Inch _____ mm

Trash Rack Information _____ (new/existing) _____ (vertical/incline^0)

Desired Materials _____Trash Racks _____Talon

Typical Debris Expected _____

Main Power _____ Voltage _____Phase _____Hertz ☐Hazardous

Special Options _____

CONTACT DETAILS

Company Name _____

Contact Person Name _____

Email and Phone Number _____

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