

WTR[®] Talon Rake[®] and Bar Screens

Traveling Screen and Pump Protection



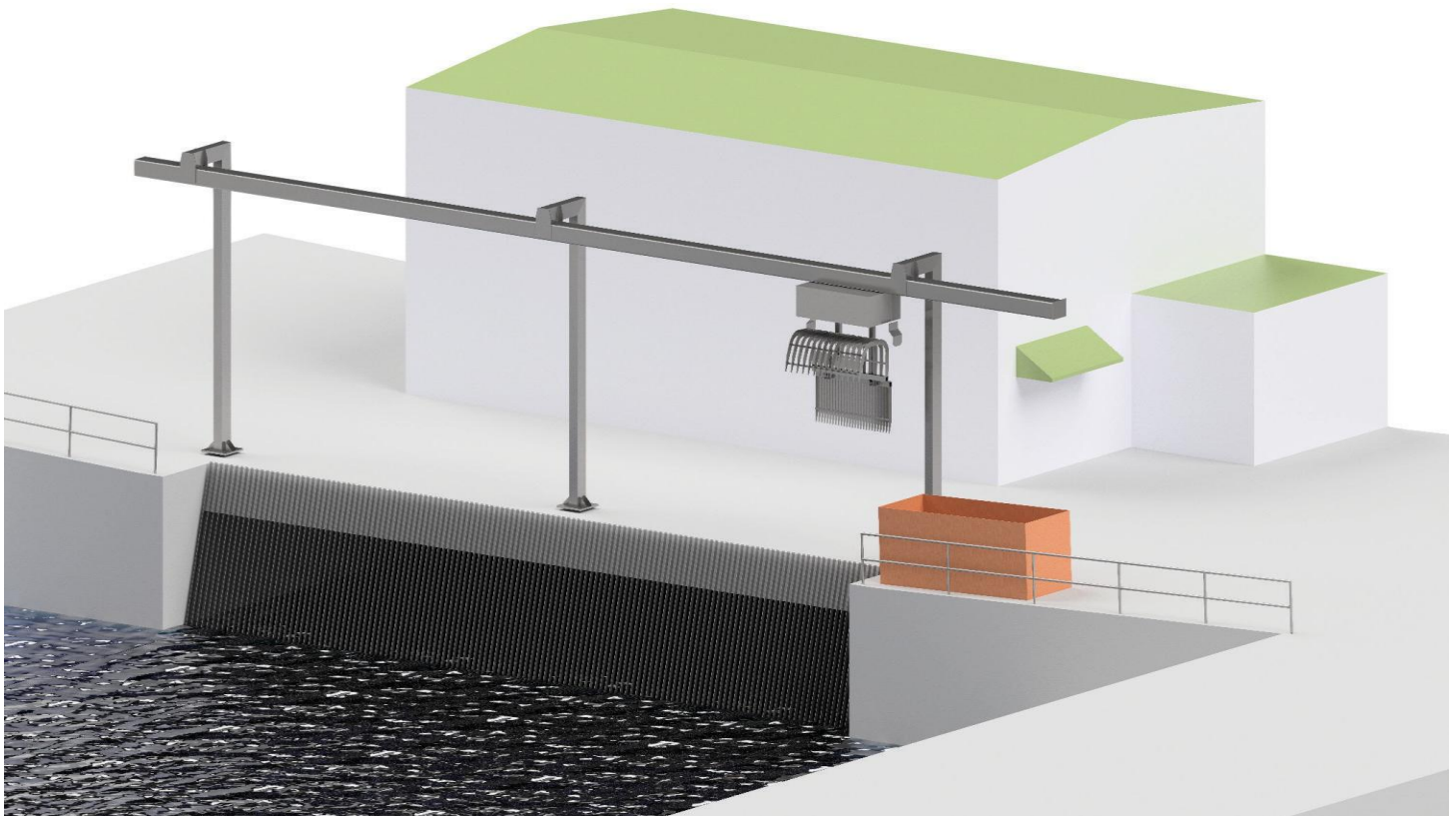
Talon Rake and Bar Screens

WTR's Talon Rake (monorail based automatic raking machine) and Bar Screens are one of the most economical means of protecting downstream equipment such as Traveling Screens, Drum Screens or Pumps. Talon Rakes can be used in all types of applications where debris accumulation on the Bar Screens is common and protection of downstream equipment is essential. Applications include power plant raw water (fossil, nuclear, hydro), industrial raw water, storm water, flood control pumping stations, domestic sewage treatment, potable water intake, irrigation and numerous other plant types.

Coarse debris in the flow can overwhelm and damage rotating screens or cause serious pump issues. Logs, branches, leaves, trash and common aquatic vegetation can blind various systems. Talon Rakes are designed to automatically clean bar screens 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 hand held 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. 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.

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. Controls and Drives can be supplied for hazardous locations.

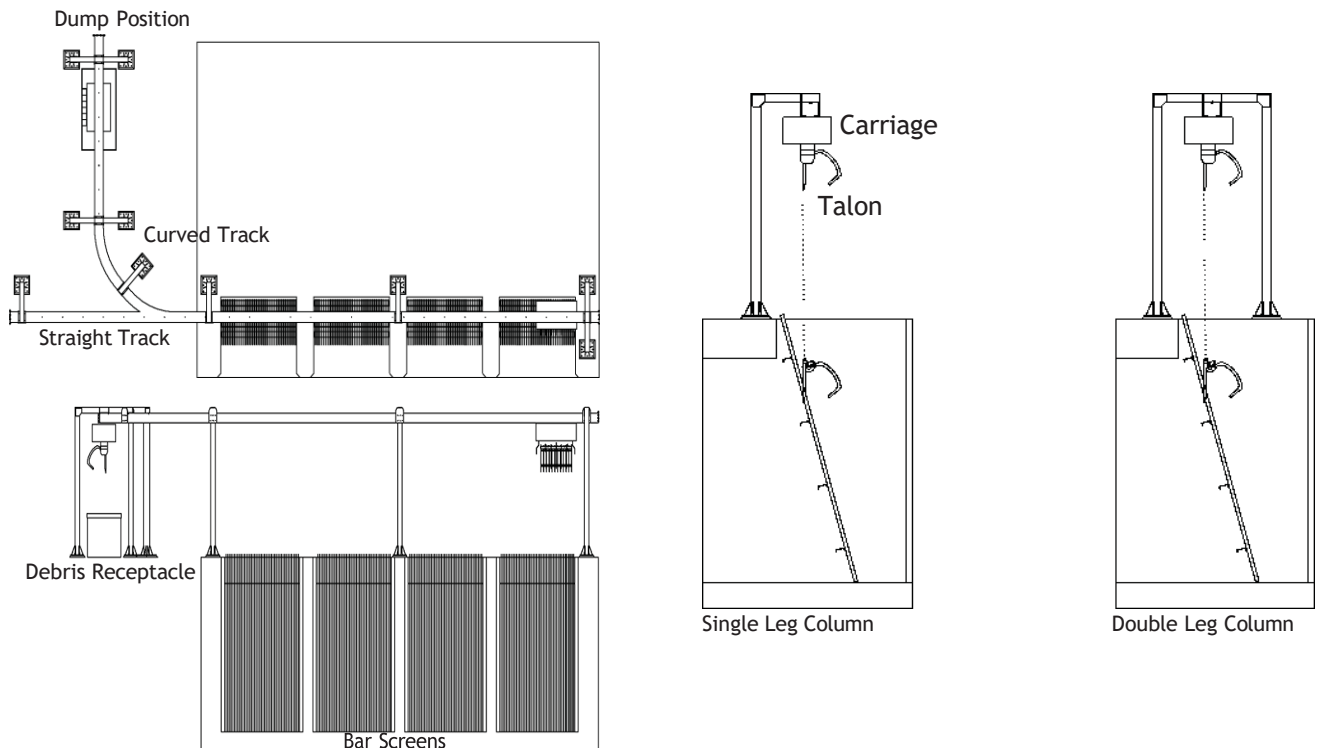


- Straight Track
- Curved Track
- Inclined Racks
- Vertical Racks

Talon Rake and Bar Screens

Features:

- Bar Screens are built to site specific channel dimensions; typical single screens are 5ft. (1.5m) to 20ft. (6m) wide. Bar Screens 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 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.
- The Talon Rake uses a dedicated carriage electrification system avoiding windblown festoon loops.
- Talon Rakes provide positive debris retention by mechanical closure eliminating hydraulics and fluids in the water.
- Specially shaped monorail provides higher strength and protection of carriage drive components.
- 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.



Model No.	TR-750		TR-1500		TR-3000		TR-5000	
	US	SI	US	SI	US	SI	US	SI
Capacity Work Load	750 Lbs.	340 kg	1,500 Lbs.	680 kg	3,000 Lbs.	1,360 kg	5,000 Lbs.	2,268 kg
Min. Clear Bar Space	1.25 inch	32 mm	1.50 inch	38 mm	1.50 inch	38 mm	2.00 inch	51 mm
Talon Rake widths	5.0 ft.	1.5 M	8.0 ft.	2.4 M	10.0 ft.	3.0 M	15.0 ft.	4.6 M
Talon Rake weight	750 Lbs.	340 kg	1,200 Lbs.	544 kg	1,900 Lbs.	862 kg	2,400 Lbs.	1,088 kg
Hoist Motor Size	3 hp	2.2 kW	5 hp	3.7 kW	10 hp	7.5 kW	12.5 hp	9.3 kW
Hoist Speed	60 ft/min	18.2 M/min	60 ft/min	18.2 M/min	60 ft/min	18.2 M/min	50 ft/min	15.2 M/min
Traverse Motor-straight	1 hp	0.75 kW	1 hp	0.75 kW	1.5 hp	1.1 kW	2.0 hp	1.5 kW
Traverse Motor-curved	2 @ 1 hp	2 @ 0.7 kW	2 @ 1 hp	2 @ 0.7 kW	2 @ 1.5 hp	2 @ 1.1 kW	2 @ 2 hp	2 @ 1.5 kW
Traverse Speed - single	60 ft/min	18.2 M/min	60 ft/min	18.2 M/min	45 ft/min	13.7 M/min	30 ft/min	9.1 M/min
Traverse Speed - dual	60 & 120 ft/min	18.2 & 36.4 M/min	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

Talon Rake and Bar Screen Data

Talon Rake and Bar Screen Sizing Data

Plant / Site Name			
Site Location	(City, State, Country)		
Water Source	Fresh	Brackish	Sea Waste Storm
Number of Channels			
Flow Rate per Channel	GPM	M ³ /sec	MGD
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	
Bar Screen Information	(new/existing)	(vertical/incline ⁰)	
Desired Materials	Bar Screen	Talon	
Typical Debris Expected			
Main Power	Voltage	Phase	Hertz ☐ Hazardous
Special Options			

CONTACT DETAILS

Company Name	
Contact Person Name	
Email and Phone Number	

