WTR® Sewage Talon Rake™

Fine Screen and Pump Protection

WTR® WATER SCREENING SOLUTIONS

AN ATLAS SSI, INC. COMPANY

Sewage Talon Rake and Bar Screens

WTR's Sewage Talon Rake (monorail based automatic raking machine) and Bar Screens are one of the most economical means of protecting downstream equipment such as Fine 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 domestic sewage treatment plants, combined storm water overflow pump stations, collection system pump stations and numerous other plant types. The Sewage Talon Rake may be installed in hazardous or non-hazardous areas, with the controls located in a non-hazardous area.

Coarse debris in wastewater can overwhelm and damage rotating screens, fine screens or cause serious pump issues. Debris such as towels, rags, wipes, pads and hygiene products can blind various systems. The Sewage Talon Rake is 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 a considerable distance away, without the need for conveyors. 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 are used to clean multiple bar screens (possibly existing ones), rakes while descending and 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.

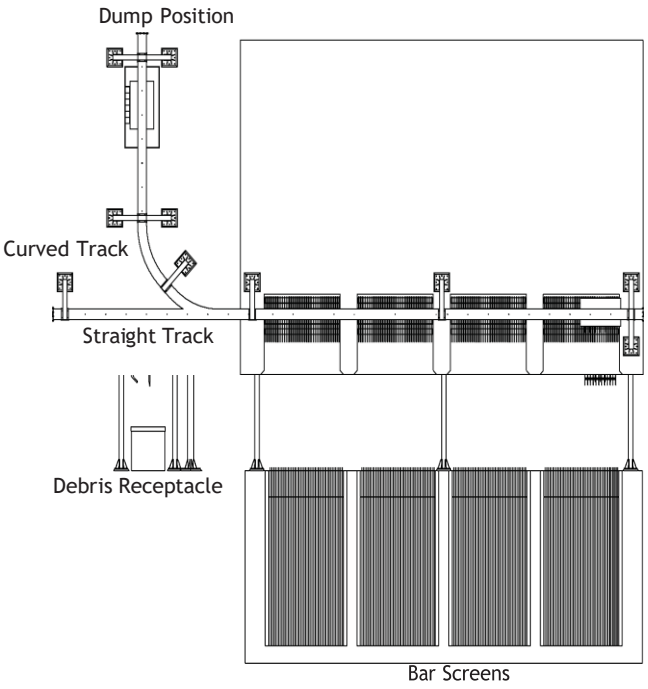
HMI touch screen control allows for various areas to be turned on / off for cleaning. Other options such as partial depth cleaning for floating debris or site-specific conditions are available with user friendly interface. Drives can be supplied for hazardous locations with primary controls located in a non-hazardous area.

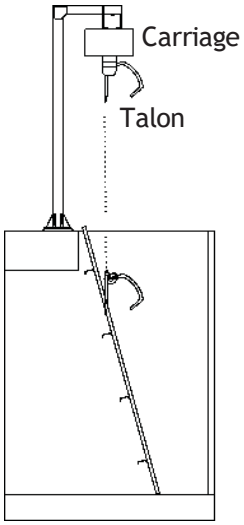
•Straight Track •Curved Track •Inclined Racks •Vertical Racks

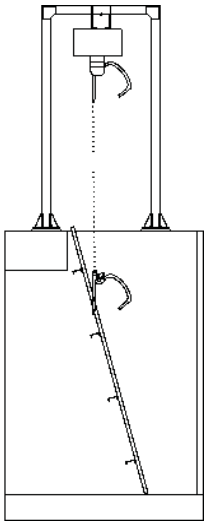
Sewage Talon Rake and Bar Screens

Features:

- Talon Rakes are used to clean multiple bar screens, rakes while descending and utilize no permanently submerged moving components. Any maintenance required is performed above the deck.
- Talon Rakes clean bar screens on the downward stroke, ensuring full tooth penetration and reliable capture of challenging debris like rags, (which are often difficult for individual rakes such as chain raked bar screens).
- 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 utilize a dedicated carriage electrification system (festoon for hazardous areas or hot rail for non-hazardous).
- 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.
- 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, Super Duplex or other). If accessible, often existing Bar Screens may be used.







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

Sewage Talon Rake and Bar Screen Data

Sewage Talon Rake and Bar Screen Sizing Data

Plant / Site Name _____

Site Location _____ (City, State, Country)

Water Source ☐ Domestic Wastewater ☐ Combined Storm Water ☐ Other _____

Number of Channels _____

Flow Rate per Channel _____ MGD _____ 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

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 _____

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