WTR® Traveling Water Screens

Pump and Condenser Protection

WTR® WATER SCREENING SOLUTIONS

Traveling Water Screens

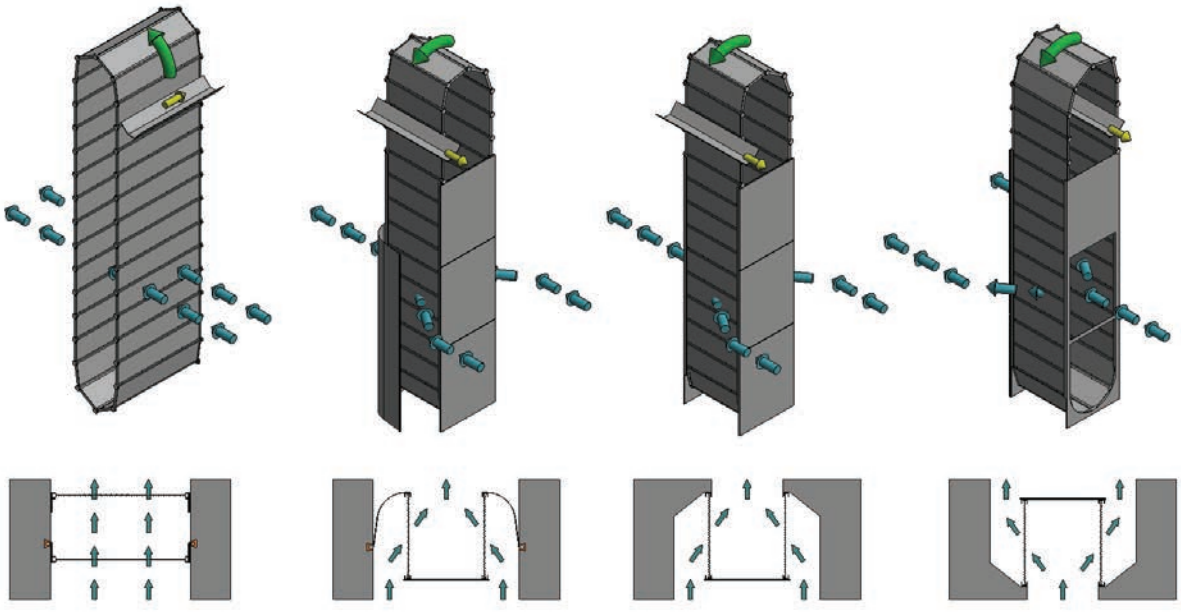
WTR Traveling Water Screens are one of the most cost effective means for fine screening of raw water. Traveling Water Screens are used in all types of applications where continuous screening is required and protection of downstream equipment is essential. Applications include power plant raw water intakes (fossil and nuclear), industrial raw water, potable drinking water, irrigation and numerous other plant types.

Debris in the flow can overwhelm and damage rotating screens or cause serious condenser issues. Leaves, trash, marine organisms and aquatic vegetation can blind various systems. Review of the source water is critical to the proper selection of the flow pattern, screen panel (basket or tray) design, mesh apertures, rotation speeds and materials of construction.

WTR Traveling Water Screens are designed to automatically and reliably filter incoming water and discharge recovered debris or marine life into the appropriate handling trough. Screens can be designed to handle typical water borne debris as well as unusual grasses, sea weed, jelly fish and many different types of debris. WTR Traveling Water Screens are available in various flow patterns including Thru Flow (TF), Dual Flow Conversion (DFC), Dual Flow (DF), and Center Flow (CF).

To eliminate debris carry-over, the DF or CF patterns are recommended. Filtration is through 2 faces simultaneously with total separation of influent from effluent. Screens can be provided as a Dual Flow for new civil works or as a Dual Flow Conversion to convert existing Thru Flow sites to a Dual Flow pattern, typically with no civil modifications. Duty types include Standard Debris Handling, Jellyfish Handling or Fish Recovery & Return Screens.

All flow patterns are available as Fish Recovery and Return to meet 316(b) environmental requirements. Specialized water tight, hydraulically stabilized fish recovery buckets allow for the quick recovery of juvenile marine life. Organisms are elevated to the head section where gentle sluice sprays aid in discharging them into a return trough for reinsertion to their indigenous environment. After the fish sprays, the screen continues rotation past higher pressure debris sprays, washing the captured screenings into a separate debris trough for discharge or further disposal.



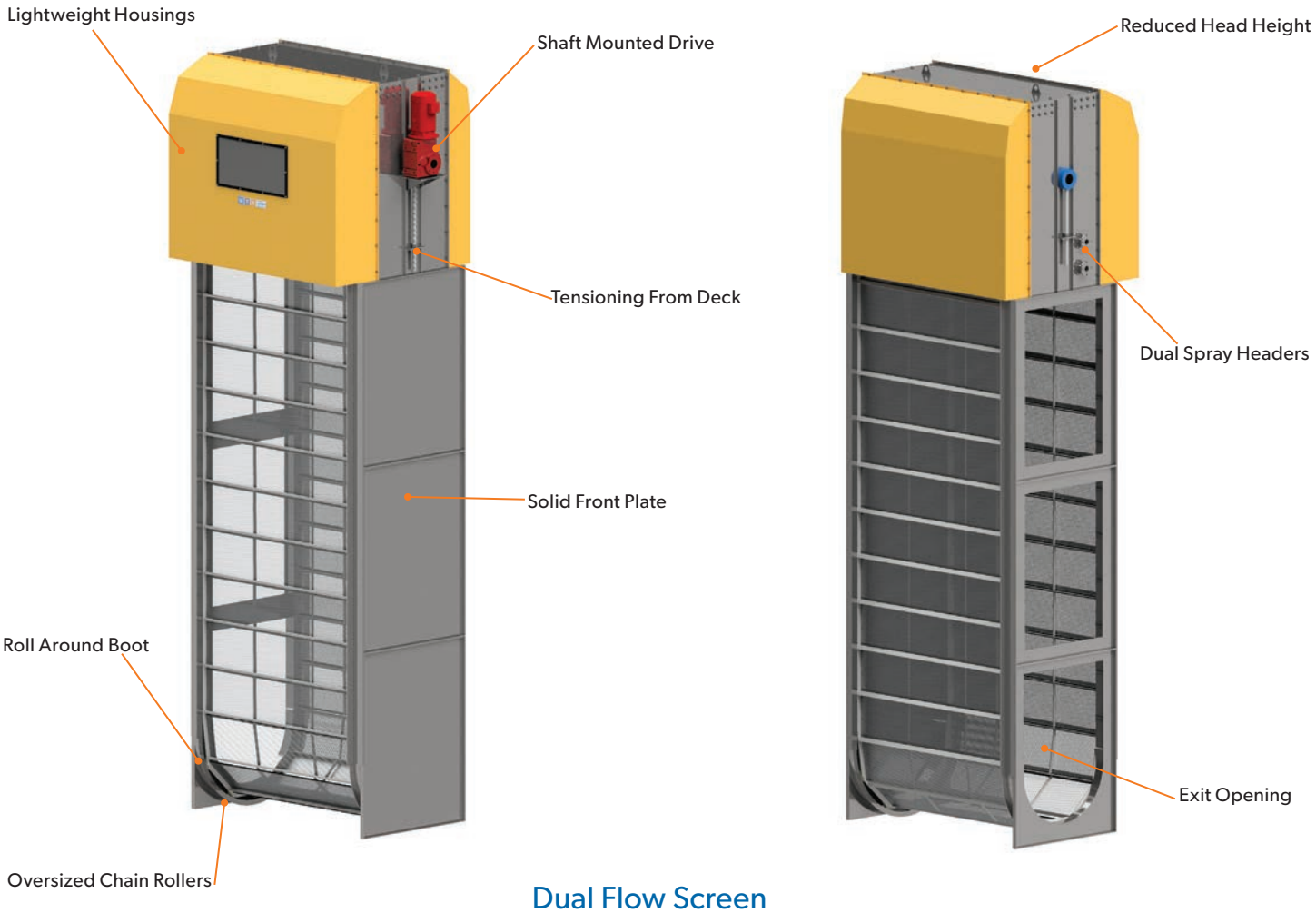
Traveling Water Screen Flow Patterns

Features:

- Screens are built to site specific conditions for flow, mesh aperture, panel style and debris or marine handling.
- Materials can be mainly Carbon Steel (epoxy coated or galvanized) or Stainless Steel (304L, 316L, Duplex or other).
- Variable Frequency Drive (VFD) motors incorporate multiple speeds, provide flexibility and user interface.
- Shaft mounted drive reduces maintenance and eliminates drive sprockets, chains and cumbersome chain guards.
- Oversized carrier chain rollers, pins and bushings are non-lubricated, reduce horsepower and extend chain life.
- Full rim sprockets drive the carrier chain via the sidebars, thus extending chain life while reducing joint wear.
- Dual spray headers provide positive overlapping coverage and reduces required pressure and volume for cleaning.
- Reduced height head section allows for easy internal viewing, routine inspection and maintenance accessibility.
- Chain tensioning from deck level gives instant access for adjustment and requires no ladders and platforms.
- Solid front plate provides free standing design, prevents debris bypassing and eliminates costly civil walls.
- Roll around boot section delivers positive tracking while eliminating submerged sprockets with constant jamming.

OPTIONS

- Fish Recovery and Return to meet the Best Technology Available requirements of US EPA Sec. 316(b).
- Anti-friction take up bearings for continuous operation and reduction in maintenance attention.
- Panel-to-panel seals and frame-to-panel seals to eliminate bypassing for fine mesh applications.
- Manual or automatic self flushing spray headers and debris trough to prevent debris accumulation.
- Replaceable track wear bars for ease of future overhauling of main carrier chain guideway tracks.
- Emergency by pass door to prevent screen damage from unforeseen sudden differential surges.
- Debris (trash) baskets are available to capture recovered screenings within a self-draining sump.
- Control systems for Differential Control (ultra-sonic or radar), HMI touchscreen or DCS monitoring.



Dual Flow Screen

Traveling Water Screen Sizing Data

Plant / Site Name _____

Site Location _____(City, State, Country)

Construction _____New _____ Existing _____New Expansion

Water Source _____Fresh _____ Brackish _____ Sea ☐ Cooling Pond

Number of Channels _____ ☐ Indoor ☐ Outdoor ☐ Fish Recovery

Flow Rate per Channel _____ GPM _____ M^3/sec _____ MGD

Channel Width (each) _____ 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 Mesh Opening _____Inch _____ mm

Desired Flow Pattern _____Thru _____ Conversion _____ Dual_____Center

Desired Materials _____ Mesh _____ Panels_____ Main Frame

Typical Debris Expected _____

Upstream Bar Screen ☐ Yes ☐ No Clear Bar Opening _____ In. _____ mm

Main Power _____ Voltage_____ Phase _____ Hertz ☐ Hazardous

Special Options _____

CONTACT DETAILS

Company Name _____

Contact Person Name _____

Email and Phone Number _____

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