

Malibu, CA

Civic Center Water Treatment Facility | Case Study

The Client

The City of Malibu (CA, USA) is a community of over 12,000 residents. Malibu is generally bounded on the North by the Santa Monica Mountains, on the East by Topanga Canyon, on the West by Ventura County and on the South by the Pacific Ocean. It is known for its Mediterranean climate and its long strip of coast. Malibu remains a primarily residential community, with commercial areas limited in only a few areas, notably the Civic Center.



Key Technologies

- John Meunier Rotarc® type SB Fine Screen with integrated compactor
- John Meunier Mectan V® Vortex Grit Separator with SAM® type GDS Grit Dewatering Screw
- Hydrovex® SFT Sediment Flushing Tanks

The Client's Needs

Malibu's environmentally friendly Civic Center Wastewater Treatment facility is located in a commercial area. In 2016, the facility underwent major construction improvements, and was considered the largest public infrastructure project in the city's history. The purpose of the upgrades was to treat, reuse, and dispose of wastewater flows from properties in the Civic Center.

The development consisted of major upgrades to the complete water treatment chain process, from Headworks to Solids Handling to UV Disinfection.

The Solution

Veolia Water Technologies (VWT) supplied all pretreatment equipment for the new 1.5 MGD Headworks System, and therefore, providing a single source responsibility. In addition, VWT also supplied a tipping trough system to clean the flushing lanes of the wastewater equalization basin.

The technologies supplied are:

- One John Meunier Rotarc® type SB Shaftless Spiral Fine Screen to remove and compact all solids above 1/4" diameter. The equipment is supplied with a self-standing tank for an above floor installation, with integrated bypass capability.
- One John Meunier Mectan V® and SAM® Grit Removal System, which consists of a self-standing grit removal tank combined with a grit dewatering screw to positively remove grit from the influent wastewater and dewater it.
- Two Hydrovex® Sediment Flushing Tanks to economically clean the equalization basin free of debris by generating a powerful wave of water.

The equipment have been successfully commissioned in 2017.

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The Technologies

John Meunier

ROTARC® type SB Shaftless Spiral Fine Screen



- High solids separation: Wedge-wire or perforated hole type screen ensures high separation efficiencies;
- Stationary solids capture screen: Ensures retained solids cannot bypass the screen;
- Integrated press zone for screenings dewatering and compaction;
- Small footprint “all-in-one” screenings removal, washing and compaction;
- Integrated brush provides high level of basket screen cleaning and extends components durability;
- Low maintenance cost.

John Meunier

MECTAN V® Vortex Grit Separator with SAM® type GDS Grit Dewatering Screw

- High efficiency grit removal: 95% removal of all particles down to 140 mesh;
- Small footprint “all-in-one” grit removal and dewatering of grit;
- Layout flexibility of the Mectan V®, allowing multi-directional outlet channel positioning;
- Completely enclosed system for odor control;
- Economic solution compared to installations requiring the use of extraction grit pumps and hydrocyclone;
- Low maintenance cost.



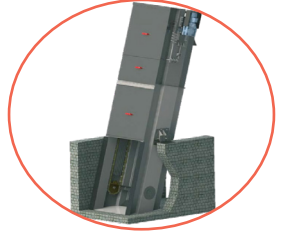
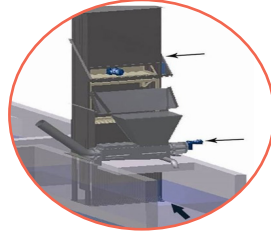
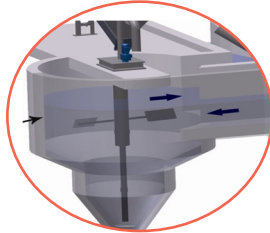
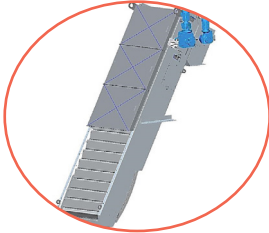
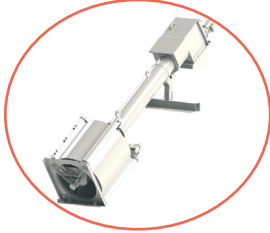
HYDROVEX® SFT Sediment Flushing Tanks

- Produces a powerful, high celerity, high amplitude wave;
- Cleans flushways up to 210 ft long and 30 ft wide;
- Can be installed in parallel for large retention basins;
- Process or clarified water from retention basin can be used to fill up the flushers;
- Corrosion resistant, all stainless steel construction;
- Maintenance free.

“The new water treatment facility furthers our commitment to smart, environmentally sound water management practices while combating the realities of climate change.” - Mayor Rick Mullen. WaterWorld, 5 Oct. 2018

“Every drop of water is precious to L.A. County. Malibu’s new state-of-the-art water treatment facility will move us closer to a sustainable future by recycling treated wastewater and using it to keep our public spaces green.” - LA County Supervisor Sheila Kuehl. WaterWorld, 5 Oct. 2018

The Complete John Meunier Headworks Set-up



Coarse and Fine Screens, bar type

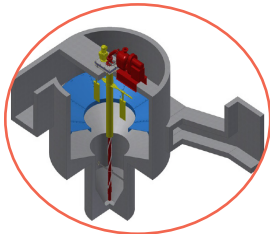
CONT-FLO® type CF Vertical Bar Screen
CONT-FLO® type ER Multi-Rake Bar Screen

Fine Screens, mobile screening plate type

ESCALATOR® Fine Screen
ROTARC® type SD Rotary Drum Fine Screen

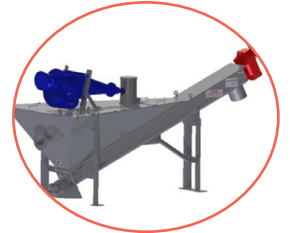
Fine Screens, stationary screening plate type

ROTARC® type SB Shaftless Spiral Fine Screen



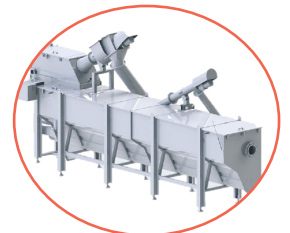
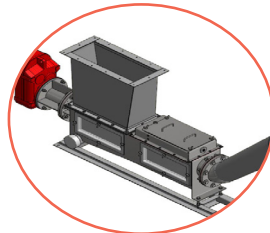
Solids' Handling

ROTOPAC® type RPW Screw Washer Compactor
ROTOPAC® type RCW Dual-Stage Screw Washer Compactor
ROTOPAC® type RDW Shaftless Screw Compactor
ROTOPAC® type RLK Screw Conveyor



Grit Removal Systems

MECTAN® Vortex Grit Removal System
SAM® type GDS Grit Dewatering Screw
SAM® type GFW Grit Washer



Combined Systems

SEPRAPAC® type PCS Pretreatment Combined System
SEPRAPAC® type SRS/SCS Septage Combined System

Veolia Water Technologies Canada is the final choice for the design, manufacture and servicing of wastewater pretreatment works. We target excellence and innovation. We also invest in R&D to meet growing environmental regulations and market needs.

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