



吸泥機



國家水專業有限公司
ITW WATERTEK COMPANY

概要

JMS Mega-VAC Overview

- Hoseless telescoping system
- Suitable for new or existing plants
- Built for years of reliability
- Patent pending features enhance performance
- Many existing applications
- <https://www.youtube.com/watch?v=5NrShSyvCto&index=10&list=PLeueVn93oGvDJQv8diDT8xCido9tpqB7T>



Mega-VAC

優點

- 可控制排泥閥開關
- 可設定排泥機行走模式，例如沉澱池30%前段污泥沉降較多，吸泥頻率最高...沉澱池30%最末段，吸泥頻率最低...
- 附加:設計排泥管逆洗(脈衝、數秒...)



Mega-VAC條件

- 須在池外設置圓形污泥暫存槽、污泥泵浦(污泥液位高低自動啟動)
- 重力(液位差)排泥或泵浦排泥

**污泥不得直接從吸泥機出口連接泵浦送至遠端廢水池



50 YEARS OF EXCELLENCE

JMS

JIM MYERS & SONS, INC.



Mega-VAC

Sludge Removal System

Proven ... Process ... Performance

Key Features

Hydraulic Head Differential

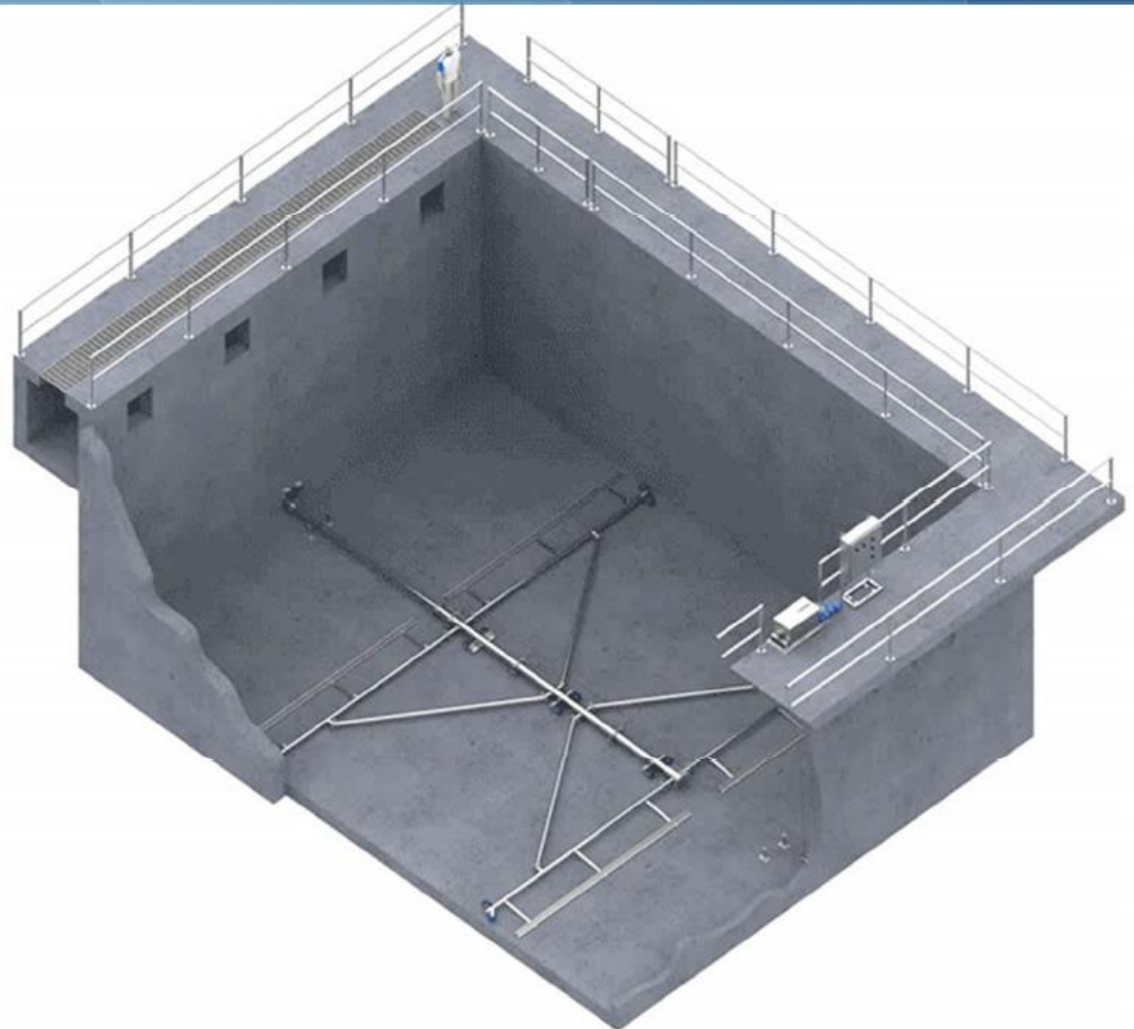
- System designed to remove sludge from the entire sedimentation basin

Dual Header Design

- Reduces the overall travel distance by half and efficiently removes solids

Hoseless Design

- Telescoping sludge conduit with seal assembly eliminates the need for hose
- Flow balancing diagonals minimize pressure differential across the header



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Mega-SETTLER

Plate Settler System



Mega-TROUGH

Trough System



Mega-WALL

Baffle System



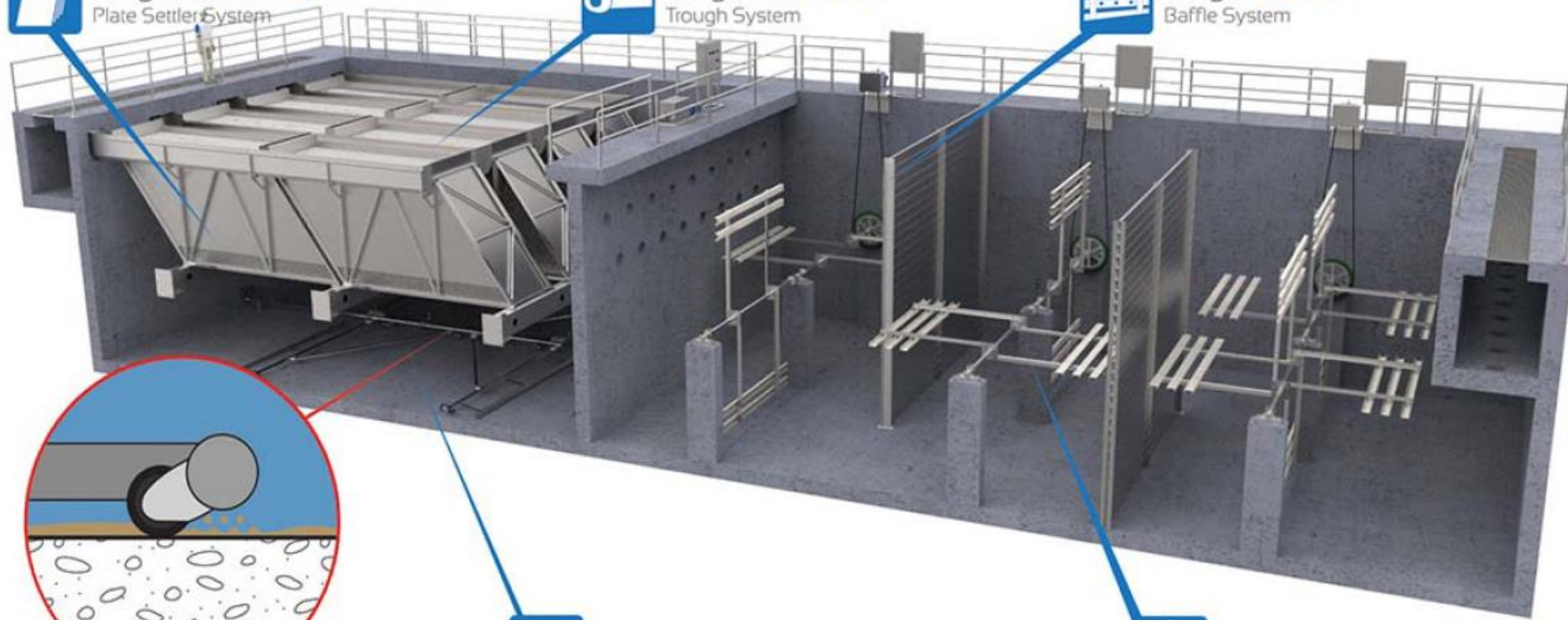
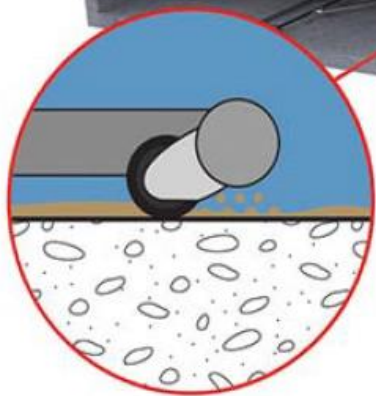
Mega-VAC

Sludge Removal System



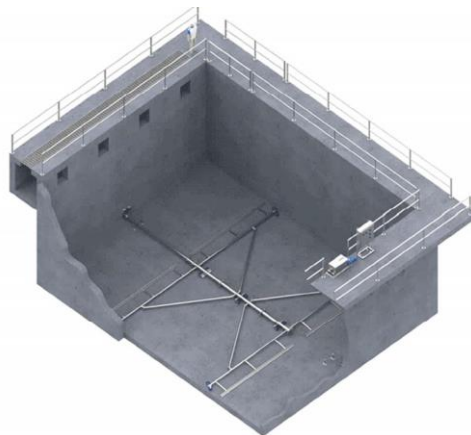
Mega-FLOC

Horizontal Paddle Wheel Flocculator

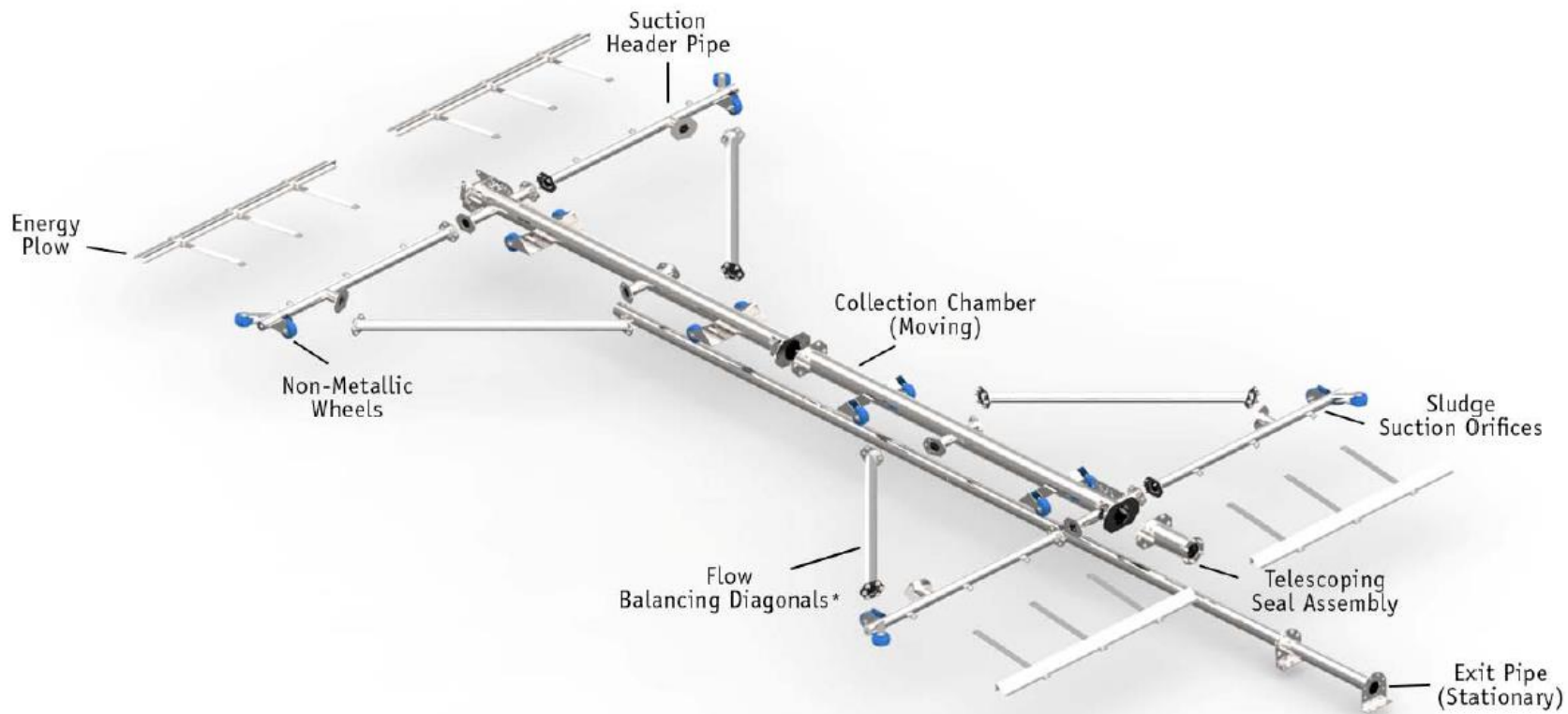


主要特色

- 以水頭差排出沉澱池沉積汙泥
- 雙吸泥管，縮減吸泥管行走距離，
- 大幅提升排泥效率
- 伸縮排泥主管，無排泥軟管
- 對角排泥輔助管設計，全面均勻排泥



結構- 吸泥管



驅動裝置(雙捲輪)

Dual Reel Drive Assembly

- SEW Eurodrive gearmotor with integral encoder for position monitoring
- Dual reels for cable take-up and payout
- Secondary proximity sensors for end of travel control
- Each drum rotates independently
- Easy installation and cable tensioning
- Unaffected by cable stretch



驅動裝置

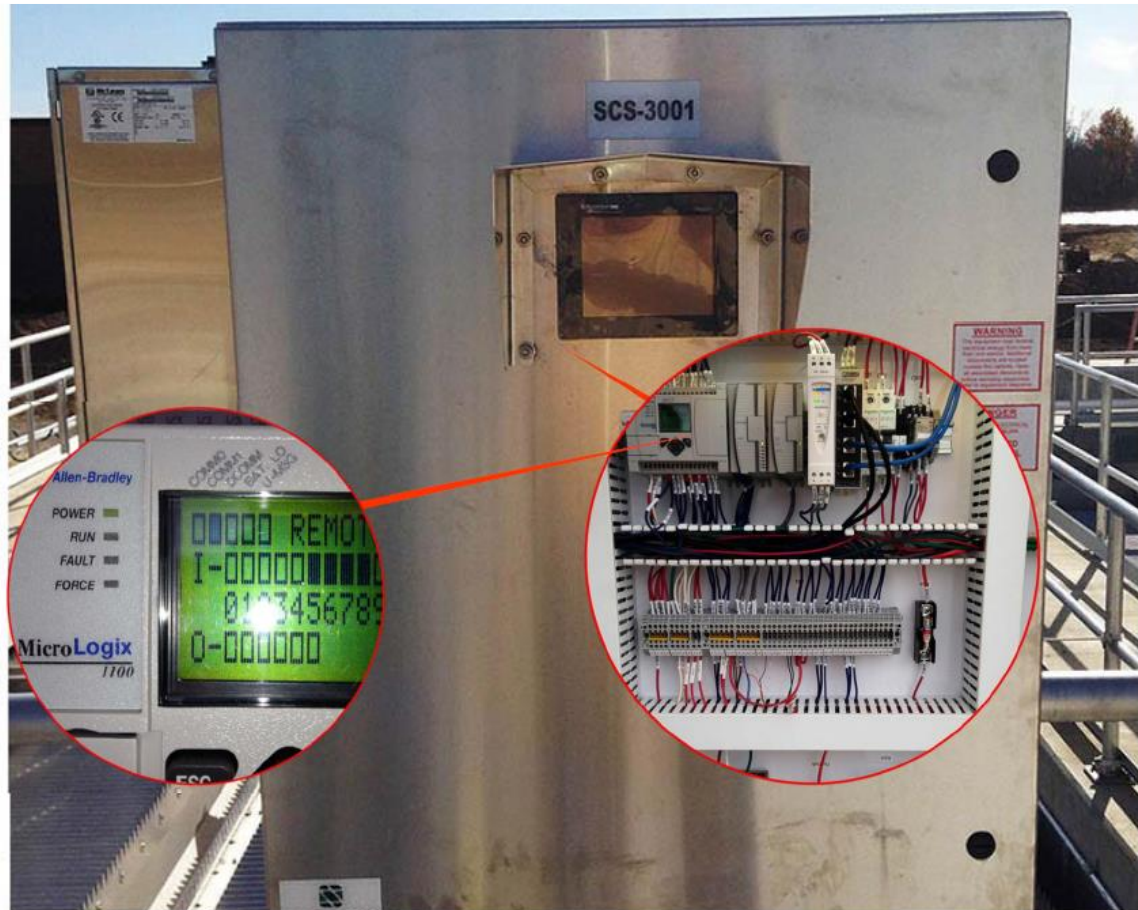
Electric Drive

Description	1/4HP Parallel-shaft Helical Gear Motor		
Manufacturer	SEW Eurodrive		
Model Number	FA67BR37DRS71S4	Gear Ratio	1859:1
Motor Voltage	230V/460V	Motor HP	1/4
Motor RPM	1700	Output RPM	0.91
Motor FLA	0.9A/0.45A	Service Factor	1.0

控制盤

Controls

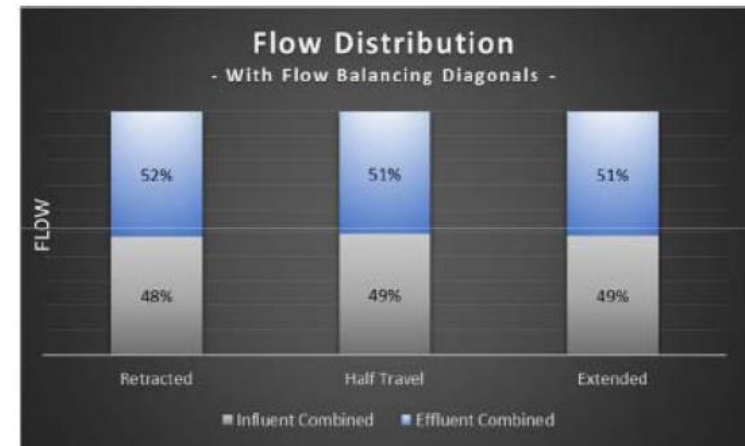
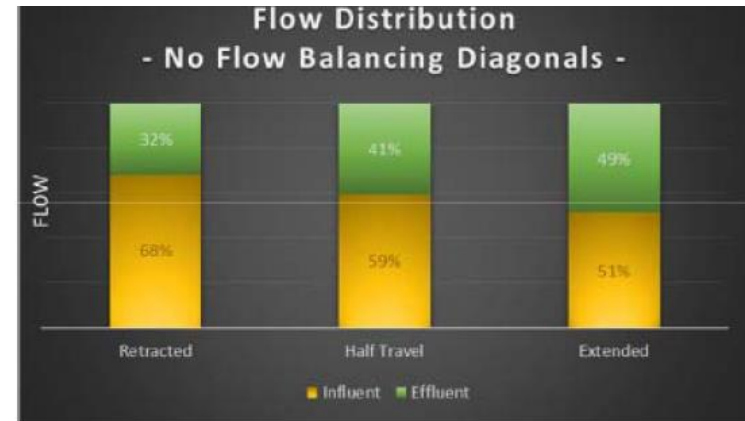
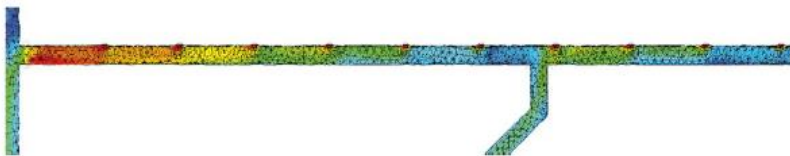
- JMS can provide different controls configurations and options to meet the needs of any project
 - NEMA 4X Stainless Steel Control Panels
 - PLC's
 - SCADA Compatible
 - VFD's
 - Integral VFD "Movimots"



對稱均勻排泥設計

JMS Development – Patent Pending Flow Balancing Diagonals

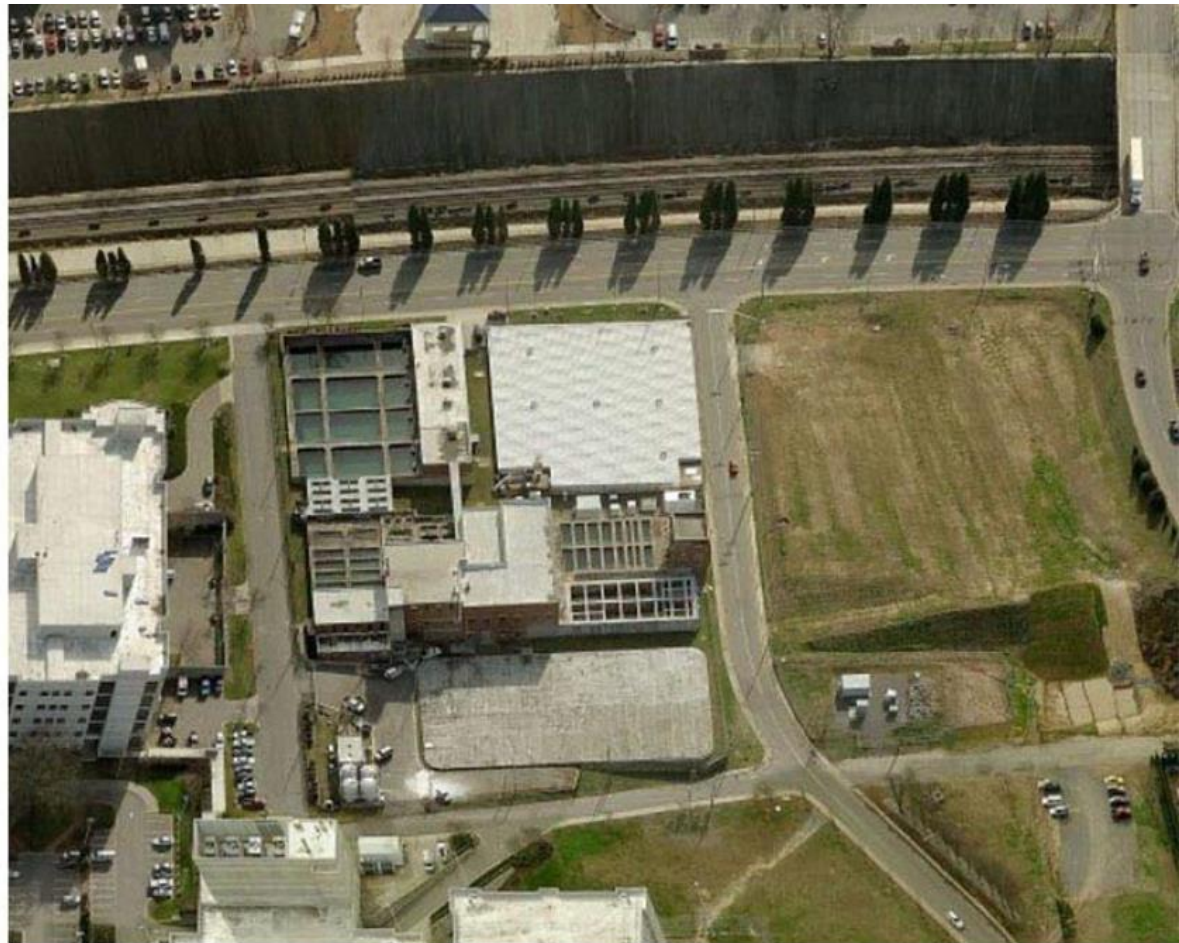
- Minimize effects of differential pressure
- Balance flow entering each orifice
- More consistent sludge removal across entire header
- Creates even flow for all suction headers at any location within the basin



安裝案例

Gastonia, NC – Spotlight

- JMS Pilot Unit on site for 1+ years, including Mega-VAC sludge removal
- Demonstration of upgrades for plant
- Unit consistently delivers high quality water to filters
- Mega-VAC has become vital part of plant's operations
 - **Incoming Turbidity:** 2 to 200 NTU (spikes)
 - **Source:** Mountain Island Lake
 - **Plant Capacity:** 24mgd
 - **Flocculant:** Alum
 - **Downstream Treatment:** Membrane



安裝案例

Bradford, PA– Spotlight

- JMS was proud to supply Mega-VAC Sludge Removal for this waste treatment plant
- Replacement of chain and scraper sludge removal will reduce maintenance time and cost
- Plant capacity increased from 6.3 mgd to 8.8 mgd
- Plant personnel are very pleased with equipment performance



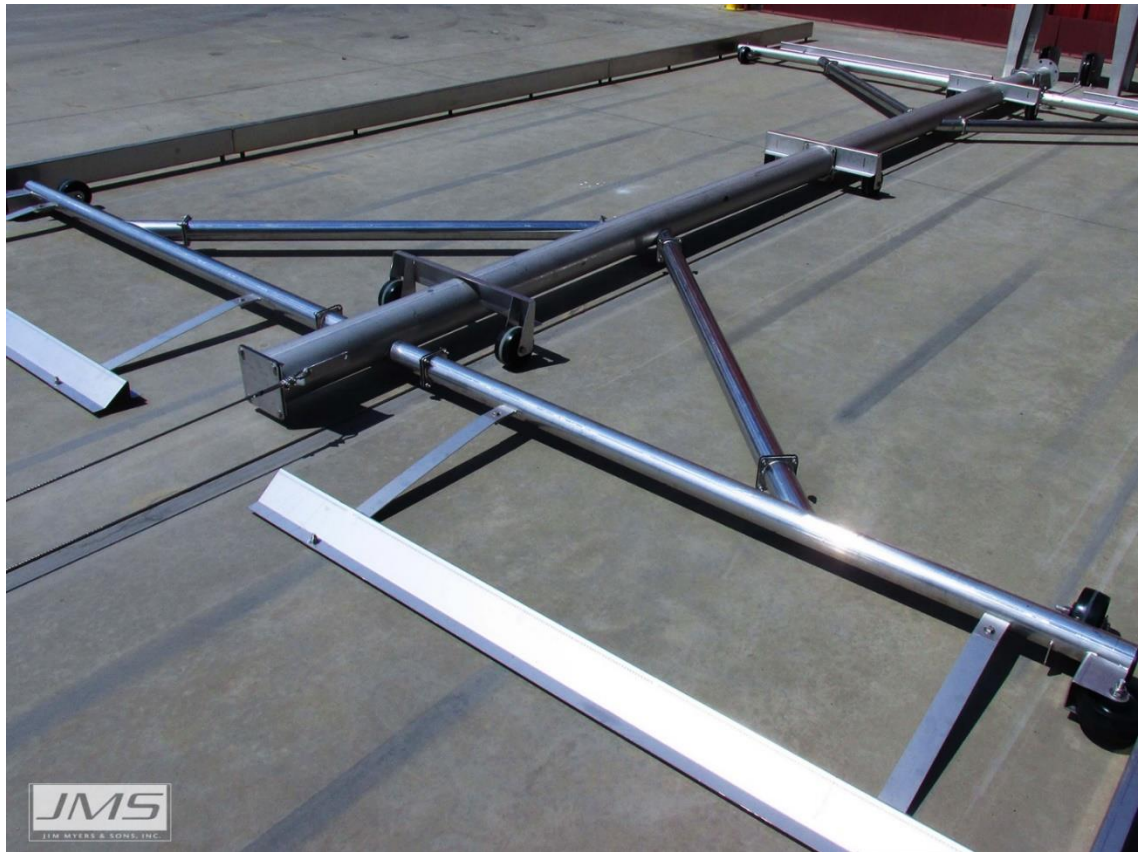
更多案例







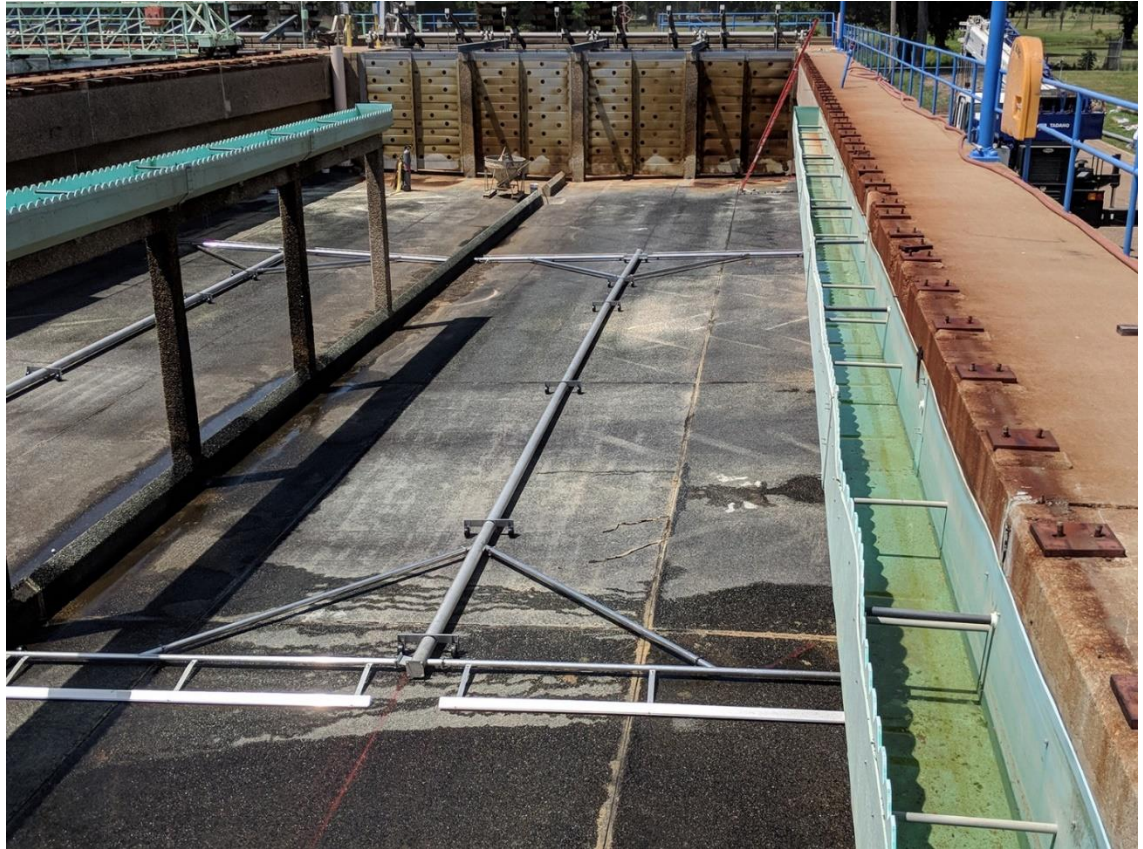












問題與處理

PROBLEM	POSSIBLE CAUSE	REMEDY
Sludge removal system will not start	Electrical drive not operating	Check that VFD is not off. Check VFD for fault. Check that speed is set correctly. Verify that power is not locked out at VFD or local disconnect.
	No power at motor	Have electrician check power at motor and back to source.
	Motor failure Sensor alert	Replace motor. Check control panel for errors
Poor solids removal	Incorrect header speed	Adjust speed based upon plant experience.
	Solids collected inside header or sludge hose	Check for proper feed rate of flocculation chemicals and adjust.
Abnormal Vibration	Track alignment	Inspect track for proper alignment
	Guide wheels worn	Inspect, and replace as required, all guide wheels
	Gear reducer failure	Check lubrication levels and fill to recommended level. Replace or repair gear reducer if worn or damaged by inadequate lubrication.