



MRI
meurerresearch

A PARKSON BRAND



MRI Inclined Plate Settlers

The High-Capacity Inclined Plate Settler System

- Best-in-class performance
- Lowest cost of ownership
- Industry leader you can trust
- Proven reliability for decades of operation



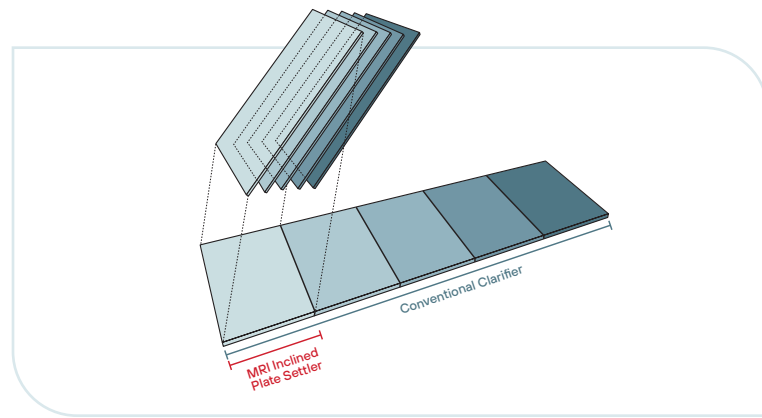
Proudly made
in the USA

The Leader in Clarification

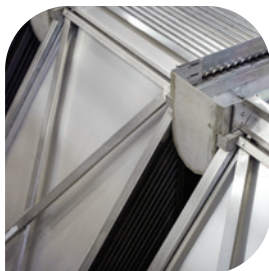
MRI's Inclined Plate Settler System adds surface area to a basin by providing rows of inclined plates, often at 55°, in effect compressing the capacity of a large conventional clarifier into a significantly smaller footprint. MRI systems are more economical when compared to traditional clarifiers due to increased capacity, significant footprint and construction cost savings, and consistent quality effluent.

Best-in-Class Performance We Stand Behind

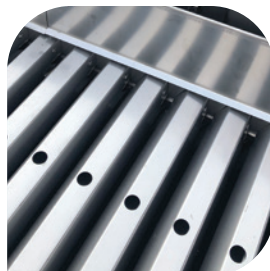
- Typical effluent <1 NTU with up to 100 NTU influent and / or reduction for >100 NTU incoming
- Superior turbidity spike leveling to reduce downstream impacts during upset conditions, water source changes, and seasonal events
- In-house lab testing for performance confidence, including chemical dosing and loading rate optimization
- Full scale, in-basin or side stream pilots available for on-site testing supported by our in-house engineers
- Performance guarantees backed by a performance bond for the ultimate confidence



↑
MRI's break-down style cartridges, optimal for confined installations



All-stainless steel, self-cleaning system provides long lasting durability. No plastics - no UV degradation.



MRI's flat plate top deck provides the safest surface for operator access, with the ability to hold 500 lbs+ over one s.f. surface area.



A maximum 2" water level above the plate top deck allows cleaning during operation.

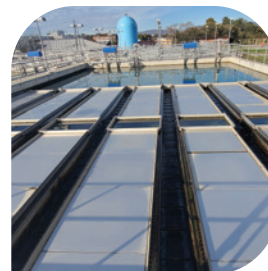
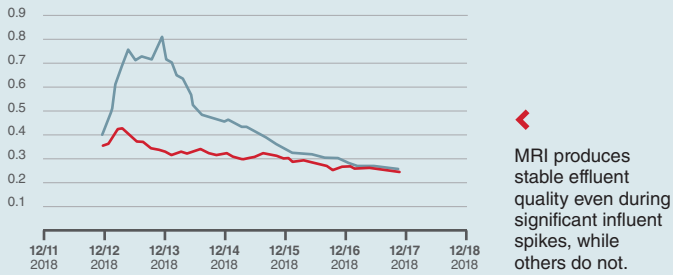
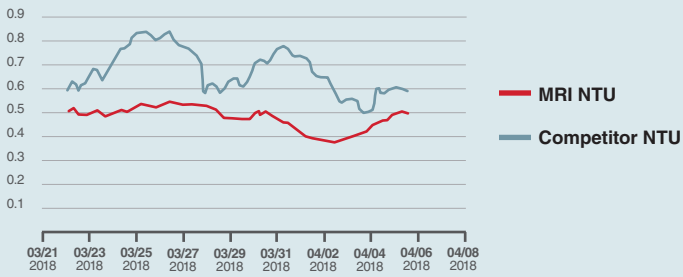


Plate and trough covers reduce operating expenses and eliminate algae growth, ice, and contaminants.



NSF-61 approved for superior product health and safety confidence.

MRI vs. Competitor Effluent Turbidity Comparison



◀ MRI produces stable effluent quality even during significant influent spikes, while others do not.

Lowest Cost of Ownership

MRI's superior effluent performance

- Extended filter runs
- Reduced total organic carbon (TOC)
- Lower disinfection by-products (DBP)

Turbidity reduction

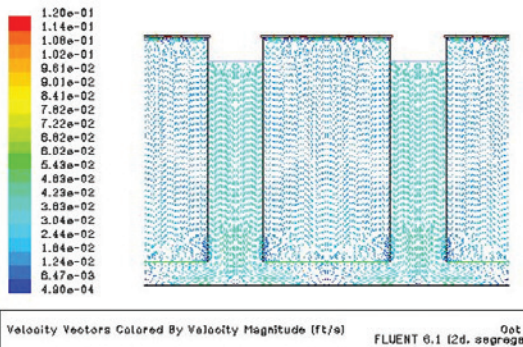
- Leveled turbidity spikes
- Up to 1" of headloss
- Uniform system flow distribution

Lower capital and operating costs

- Shared trough design
- Concealed beam design
- Chemical dosing and loading rate optimization

A Flow Control Deck Proven for Performance

MRI provides up to 1 inch of headloss to ensure uniform flow distribution across submerged orifice deck.



Industry Leader You Can Trust

Combined with Parkson and the original Lamella, MRI leads the inclined plate settler market with over 50 years of experience and thousands of installations worldwide.

- In-house process, design, and service teams offer trusted support throughout an entire project lifecycle
- Over 50 patents - MRI leads the market in innovation and performance
- Custom equipment and design support for new and retrofit projects to solve unique plant challenges

Unparalleled Flow Control System

Precise effluent extraction after settling

- 1" of headloss for final sludge separation
- Uniform flow distribution the length of the cartridge
- Forces full plate settler utilization

5 equally spaced orifices extract effluent along the plate width

- Prevents short circuiting
- Uniform, total plate width flow distribution
- Precisely metered flow



Flow Control System

Composed of top support/outlet tubes, MRI's unique Flow Control System extracts clarified water evenly across the plates and distributes it evenly into the effluent troughs.

Self-Sealing Side Baffles

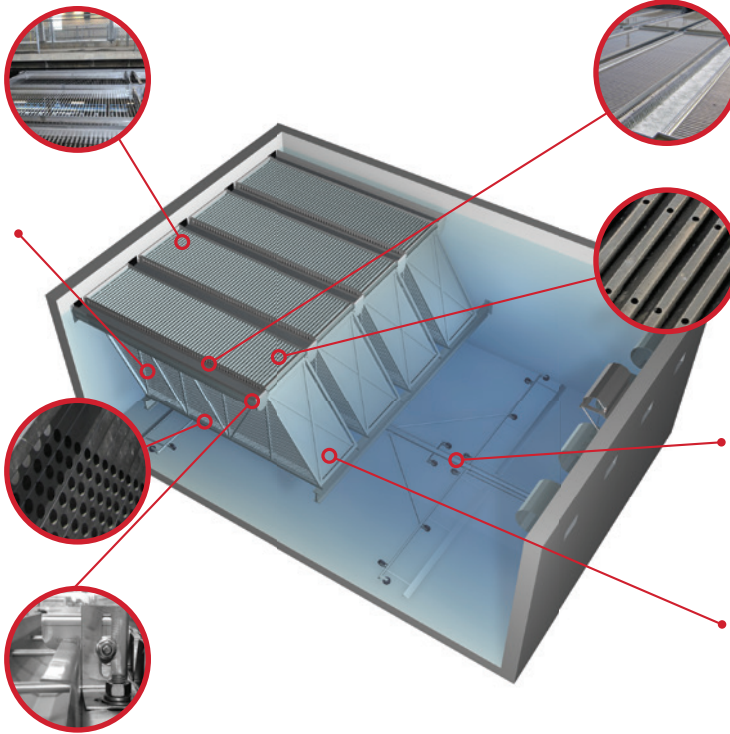
Plates are installed so that they stack and interlock to form a solid wall, which causes influent to enter the side ports.

Side Inlet Ports

Introducing the influent flow across the plate from the side allows the down-flowing sludge to escape into the quiet zone beneath the plates.

Leveling Flow Weir

Combined with MRI's patented Flow Control System, the adjustable weir easily manages irregular flow velocities.



Effluent Troughs

Side-mounted troughs work with the Flow Control System to provide even flow distribution off the tops of the plates.

Flow Control Orifices

Only MRI plates provide metered flow distribution across the entire plate width for even flow as water rises up through the plates and into the effluent tubes.

MRI Hoseless Cable-Vac™ Sludge Collector

The low-profile sludge collector removes settled solids efficiently and effectively.

Inclined Plates

MRI can customize the 100% stainless steel plate length and width to fit any application.

➤ Aerial view of circular clarifier installation with 22 shared effluent troughs (unique to MRI) which can treat up to 8 MGD and are proven to produce better quality water.



How It Works

Influent flows into the basin, enters the plates through side inlet ports, and rises between stainless steel inclined plate settlers. As flow travels up the plates, solids settle out onto the plate surface. The clarified water is evenly extracted across the Flow Control System through orifices into the top tubes and is then distributed over a weir into troughs where it flows out of the basin. The Flow Control System creates a slight, but precise, pressure drop to ensure uniform flow across the entire system and to maximize plate settling performance across the entire settling area. Sludge slides into the quiet zone beneath the plate settlers and is removed from the basin via MRI's Hoseless Cable-Vac™ Sludge Collector through differential head or via MRI's Ultra-Scraper™ Sludge Collector into a sludge removal channel.