

## MeurerMBR Wastewater Treatment Package Systems

### Energy Efficient MeurerMBR Delivers High Quality Effluent in Less Space

Engineered for rugged precision, the MeurerMBR Wastewater Package System is a plug-and-play, highly efficient, space-saving one-stage system that combines biological wastewater treatment with membrane filtration to produce high-quality effluent free of biomass, bacteria and particles.

The MeurerMBR is California Title 22 Certified and is suitable for effluent recycling and non-potable reuse.

Benefits include energy-efficient operation, significantly higher effluent quality, optimal flux, and increased capacity—all in a footprint 30% smaller than conventional wastewater treatment.

Systems are available in flows ranging from 5,000 GPD to 50,000 GPD and are ideal for use when construction space and costs are constrained, including:

- Rural settings
- Low-volume treatment plants
- Campgrounds
- Mancamps
- Industrial applications

### Performance Advantages

Leveraging patented solutions backed by more than 35 years of reliability, MRI's customized MeurerMBR Wastewater Package Systems offer long-lasting strength in a compact, built-to-specifications design.

#### Performance advantages include:

- MeurerMBR filtration rejects biomass, bacteria, and viruses, and is more resilient to shock-loading and variation in raw water quality
- Increased oxygen transfer speeds biodegradation
- Recirculation at four times the inflow rate produces a high concentration of MLSS and significantly shortens treatment time
- High-packing-density increases filtration capacity in a smaller footprint
- Back-pulsable operation ensures cleaning ease
- Effluent quality approved for recycling through Title 22 certification

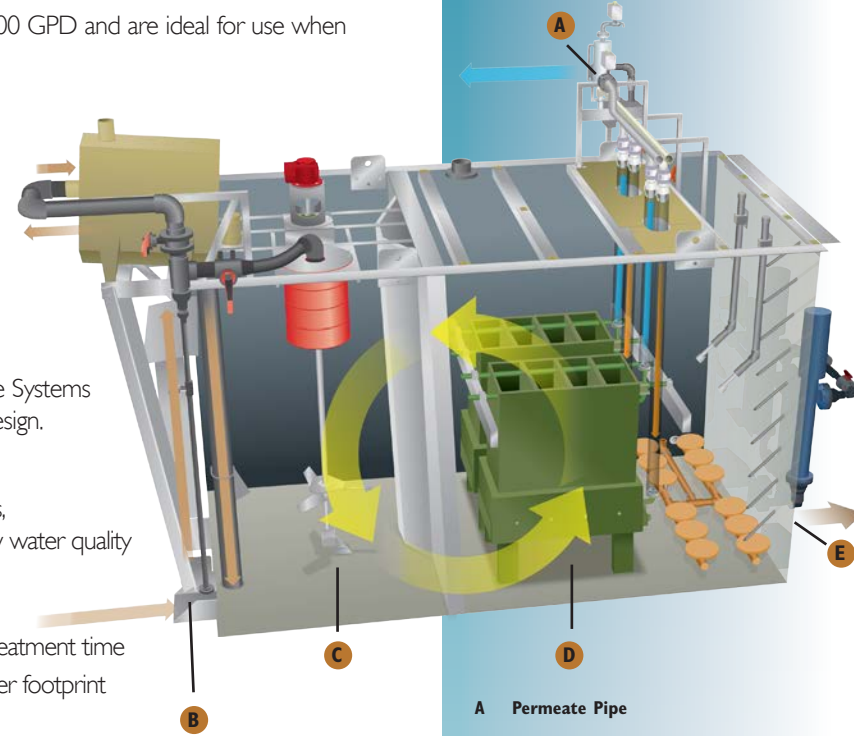
### Key Features

This plug-and-play, single-tank system contains all components needed to produce high-quality effluent, including screening, anoxic zone, and aeration zone with membrane cassettes and diffusers.

#### Components and features include:

- Inlet Pipe enables easy hook-up to on-site wastewater source.
- Rotary Drum Screen removes solids as small as 2 mm and is in an enclosed housing to minimize odors.
- Anoxic Basin is fitted with an all stainless steel Vertical Turbine Rapid Mixer that requires less energy to operate and enables denitrification.
- Aeration Diffuser delivers fine bubbles for more efficient oxygen transfer resulting in faster biodegradation and turbulent cross-flow to clean the membrane.
- Recirculation Pump transfers influent between anoxic and aeration basins at four times the rate of inflow to speed biodegradation.
- Activated Sludge Outlet Pipe connects directly to on-site sludge disposal system.
- Permeate Pipe hooks up to existing lines to carry high quality effluent suitable for non-potable reuse or re-introduction into the environment.
- Submerged Membrane Cassettes filter activated sludge bacteria and most viruses in a densely packed, modular cartridge that is easy to clean and maintain.

Screened influent enters anoxic basin and is recirculated between anoxic and aeration basins at four times the rate of inflow producing a high MLSS concentration, which shortens treatment time significantly. Flow enters submerged membranes for the filtration of activated sludge, bacteria and most viruses. Effluent suitable for recycling or non-potable reuse exits.



- A Permeate Pipe
- B Inlet Pipe
- C Anoxic Basin with Rapid Mixer
- D Aeration Basin with Membrane Cassettes
- E Sludge Outlet Pipe

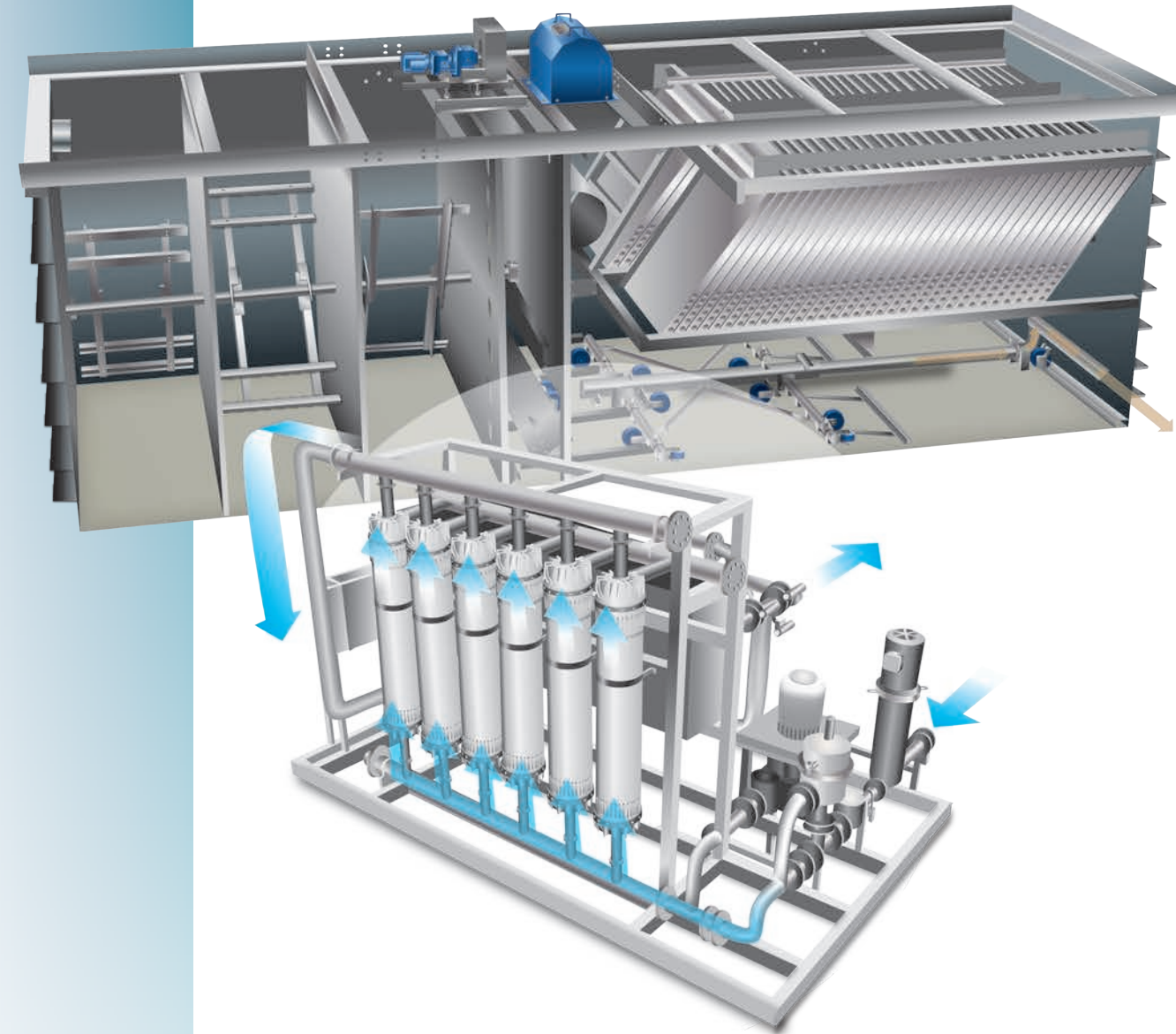


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MRI PACKAGE SYSTEMS



*MRI Package Systems*

*Space-Saving Water & Wastewater Treatment*



# MRI Package Systems

## MRI Water Treatment Package Systems

### Proven Systems Provide Maximum Flow in Minimum Space

Backed by more than 35 years of design and manufacturing experience, MRI's Water Treatment Package Systems combine the reliable, all-stainless steel, components proven through years of use in large municipal treatment systems.

MRI Water Treatment Package Systems are custom-built to meet specific site requirements and provide high quality effluent for a range of flows. Pre-assembled design makes installation quick and easy, significantly reducing the time and cost typically required for plant construction.

MRI systems are ideal for use anywhere construction space and costs are constrained, including:

- Rural settings
- Campgrounds
- Low-volume treatment plants
- Mancamps

### QUICK GLANCE SIZE CHART

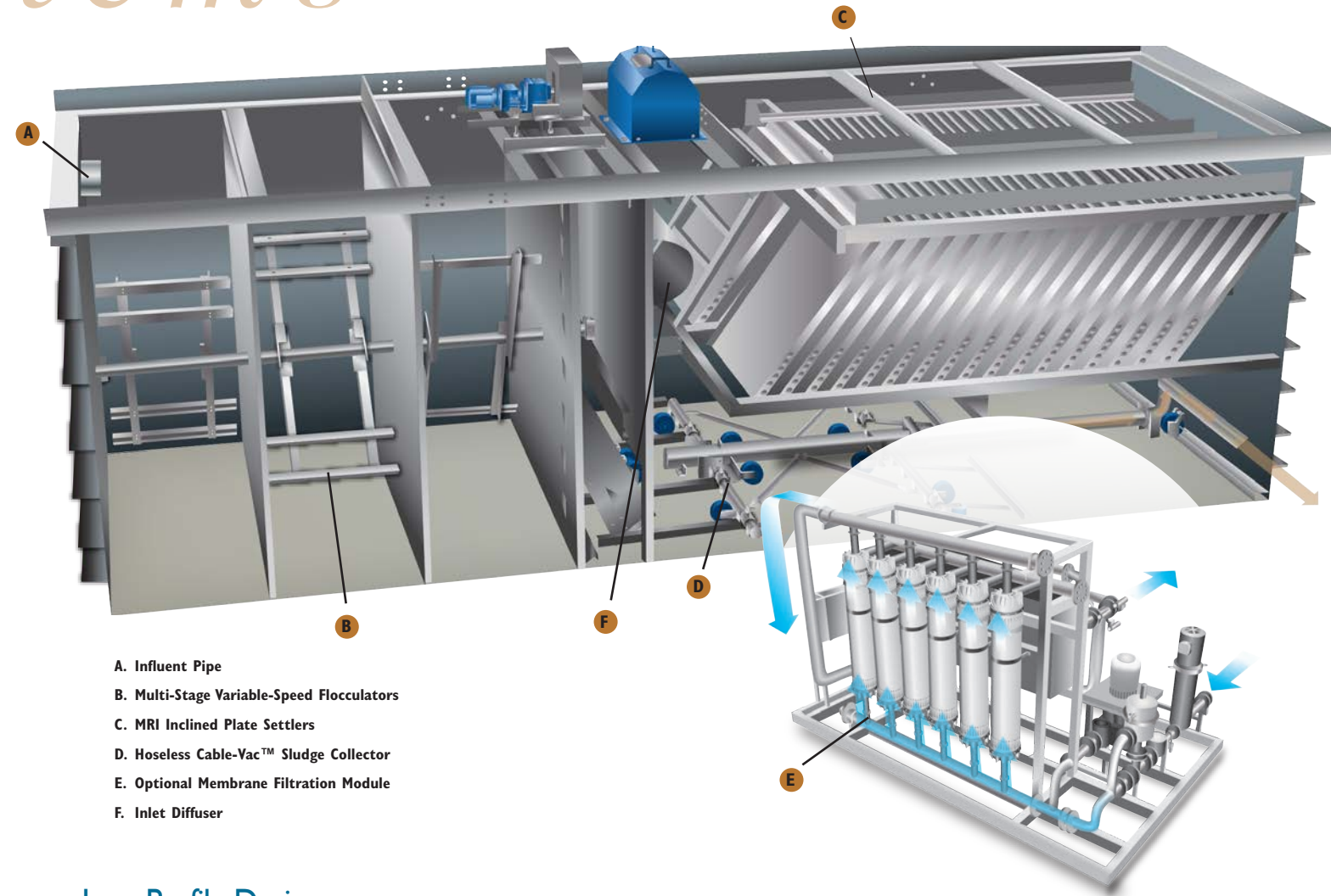
FLOW RATE	250,000 GPD	500,000 GPD	750,000 GPD	1 MILLION GPD
DIMENSIONS	24'L x 8'W x 9'H	31'L x 10'W x 9'H	42'L x 10'W x 9'H	48'L x 11'W x 10'H

## Performance Advantages

Whether site specifications require a four- or single-stage system, MRI Water Treatment Package Systems provide one-stop-shop convenience.

### Performance advantages include:

- Complete, head-to-tail solution utilizes corrosion-resistant, factory-tested, highly efficient and reliable tanks and components manufactured by MRI
- Increased settling area and water flow in a significantly smaller footprint due to MRI's High-Capacity Inclined Plate Settlers
- Optional Meurer membrane filtration module removes microbes and particulates to produce superior effluent quality
- Custom-build meets site specifications cost-effectively
- Modular design enables easy and cost-effective installation
- Systems flows range from less than 150,000 GPD to 1 MGD, resulting in the perfect solution for
  - Conventional pretreatment
  - Membrane pretreatment
  - Backwash reclaim
  - Reject recovery



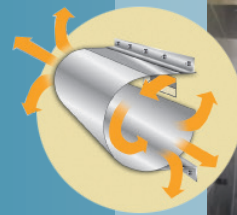
## Low Profile Design

MRI Package Systems combine proven flow control, clarification, and sludge handling into a single tank that is built to fit into a 15' tall building. Variable-speed Flocculators accelerate particle collision, Inclined Plate Settlers maximize settling, and a floor-hugging, Hoseless Cable-Vac™ Sludge Collector clears settled particles end-to-end. Optional membrane filtration provides high quality potable effluent.

## Key Features

### MRI Water Treatment Package Systems include:

- Stainless Steel Tanks
- Four-Stage Flocculation
- MRI Inlet Infuser
- MRI High Capacity Inclined Plate Settlers
- MRI Hoseless Cable-Vac™ Sludge Collector
- Walkway
- Controls
- Sludge Thickener (optional)
- Meurer membrane filtration (optional stand alone unit)



Components Include (Clockwise from left):  
 Inlet Infuser, Hoseless Sludge Collector,  
 Paddle Flocculator,  
 High Capacity Inclined  
 Plate Settlers,  
 Touch Screen Control System

see [www.meurerresearch.com](http://www.meurerresearch.com) for more detail on individual components.

