

NOVA[®]
INDUSTRIES

MRI Horizontal Paddle Wheel Flocculators[™]

The Most Robust Design for
Consistent Floc Production

Under
license of:

MRI
meurer research
A PARKSON BRAND



Horizontal turbine Flocculators

- MRI's horizontal paddle wheel flocculators consist of stainless-steel shafts, structures and paddles, range with low rotating speeds.
- Since the paddles are large and move a great deal of water, the stages are completely mixed even at low speeds. Made of stainless steel rather than FRP.
- Powered by stainless steel chain that enters directly into the mixing basin, through-wall seals are also avoided.
- Underwater bearings are water-lubricated, ultra-high molecular weight polyethylene for long-life and nearly zero maintenance.
- Greased cooper sealed ball bearings can be provided.



Hydraulic Final Stage Alleviates Clarifier Turbulence

- All Flocculation and settling processes have a high mixing zone (the flocculator) and an extremely quiet zone (the sedimentation basin). MRIs Hydraulic Final Stage provides a transition channel between the drastically different turbulence of these two areas.
- Placing a hydraulic Final Stage Between the flocculator and sedimentation basin has the following advantages:
 1. Reduce the final stage of G-Values to $<10\text{sec}^{-1}$ this will create the final stage of flocculation.
 2. Eliminates flocculator-created currents from entering the sedimentation basin. Flocculator mixers can cause jumps in the sedimentation basin. Eliminating these jumps improves the settling process.
 3. Distributes the flow coming out of the flocculators evenly across the sedimentation basin. Where serpentine or over-under flow configurations are used, the flows are distributed evenly, preventing varying velocities in the sedimentation basin

Key Features & Benefits of the Horizontal paddle wheel

- All Stainless-Steel Construction, including Paddles and Chains, provide a reliable, long lasting product and eliminates FRP shards.
- All Components, including VFDs are provided by MRI for quick, easy availability and minimized downtime.
- Underwater bearings are available in non-maintenance poly and can be greased and packed.
- High-quality SEW Eurodrive and Sumitomo gear reducers ensure long lasting Performance.
- Controls are custom designed to meet the specific needs of the water treatment plant.

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NOVA industries is an industrial establishment that is mainly engaged in the design, Manufacture and supply of state-of-art water and wastewater treatment mechanical equipment.

All the intended equipment is manufactured in Egypt under “license Agreements” provided by leading International firms that own proven technologies form US and European origins.

All equipment parts in contact with water are made of high-quality Stainless-Steel.

Products comply with NFS/ANSI 61

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