

Defender® FP-Series RMF Featuring PowerBump™ System

DEVELOPED BY NEPTUNE BENSON

The FP-Series was designed by Neptune Benson, the world's most respected and trusted regenerative media filter (RMF) manufacturer. With over 60 years of experience serving the aquatics market and thousands of RMFs installed worldwide, it's no surprise that Neptune Benson continues to develop innovative products that make pools cleaner, safer and healthier for your bathers.

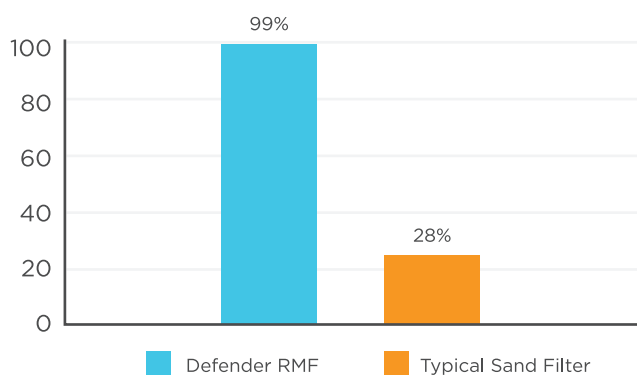
EXPANDING THE ENVELOPE

An expanded portion of the aquatics market can now take advantage of the many benefits offered by regenerative media filters. The FP-Series is suitable for small to mid-size aquatics venues requiring flow rates between 107-300 gpm (24-68 m³/hr). With a small footprint in terms of both size and cost, the FP-Series is BIG on capability, packing many features found in our classic Defender® product line.

REGENERATIVE MEDIA VS SAND FILTRATION

Sand and regenerative media filters both operate on the principle of mechanical filtration. Sand filters trap particles in water throughout the depth of their bed. When the bed becomes dirty/loaded, it is cleaned by backwashing, a process that sends considerable amounts of water to drain. RMFs trap particles on the surface of flexible tubes coated with perlite media. When the perlite becomes loaded, RMFs regenerate by bumping, a process in which no water is lost.

REDUCTION OF CRYPTO SIZED PARTICLES



Based on testing by Dr. Amburgey at UNC Charlotte, Defender PowerBump system technology was reported to remove an average of 99% of 5-micron sized particles versus 28% removal with a sand filter, under manufacturer-recommended operating conditions (e.g., standard flowrate and media) for aquatics. Footnote: *Crypto* is a 5-micron sized particle (4.5-5.5 microns). Graph content and caption courtesy of UNC Charlotte.



AT A GLANCE

- Flow rates up to 300 gpm (68 m³/hr)
- Compact size fits through 36" (91 cm) doorways
- Non-metallic fiberglass vessel eliminates corrosion concerns
- NEW PowerBump™ System eliminates moving parts
- Fully-automatic controller makes bumping quick and easy

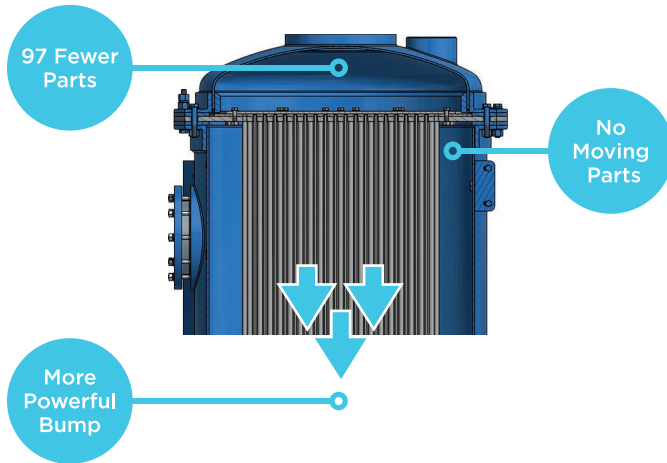


PERFORMANCE

Compared to typical sand filters, the FP-Series RMF provides superior 1 vs 20-30 micron particulate removal, delivering superior water quality and significant operational savings—up to:

Water	90%
Energy	50%
Chemicals	30%
Space	75%

POWERBUMP™ SYSTEM



MORE POWERFUL
Drives 25 times more water through the flex-tubes, creating a 40% stronger impulse.

MORE RELIABLE
Simpler design improves reliability, reduces size and facilitates maintenance.

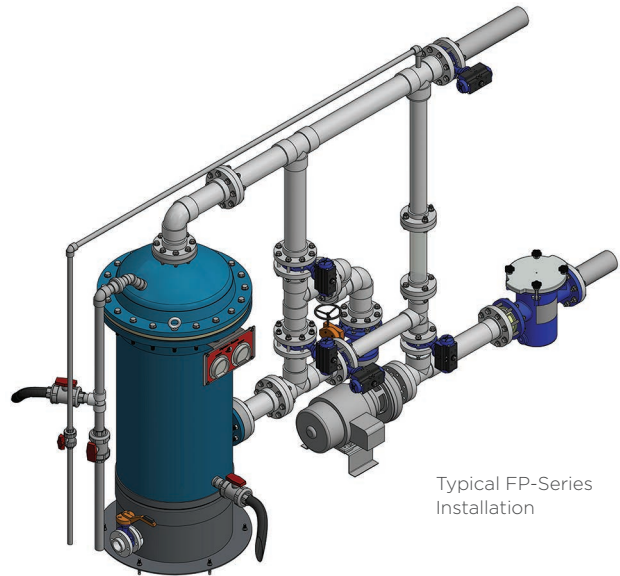
ALL NEW POWERBUMP SYSTEM

The FP-Series RMF is revolutionary in how it operates. Constructed from corrosion-resistant fiberglass (FRP), the filter features our patent pending† PowerBump System. As opposed to bumping by pneumatically raising/lowering a tube sheet, the FP-Series bumps hydraulically, using only the flow of water. Doing so delivers a more powerful regeneration, driving 25 times more water through the flexible tube elements and creating a 40% stronger impulse. It also eliminates moving parts thereby simplifying design, improving reliability, and facilitating maintenance.

†Pending in some jurisdictions

SPECIFICATIONS

Model	FP-24-36-366
Bumping Method	PowerBump™ System
Material of Construction	Fiberglass (FRP)
Flow Rate	107-300 gpm (24-68 m ³ /hr)
Filtration Rate	0.5-1.4 gpm/ft ² (1.2-3.4 m ³ /hr/m ²)
Filtration Area	214 ft ² (19.9 m ²)
Max Operating Pressure	50 psi (3.5 bar)
System Height	76.32" (194 cm)
System Width	32.5" (82.6 cm)
Tank Volume	105 gal (0.40 m ³)
Connections	Flanged 4" (10.2 cm)
Regeneration	Push-Button Automatic
Dry Weight	310 lbs (141 kg)
Operating Weight	1,202 lbs (545 kg)
Perlite Charge	17 lbs (7.7 kg)



Typical FP-Series Installation



Certified to NSF/ANSI/CAN 50

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