

# Aquarius<sup>®</sup> & Water Boy<sup>™</sup>

Package Water Treatment Plants



**WESTECH<sup>®</sup>**

# Economical Aquarius®

*Flocculation, Sedimentation, and Filtration in Packaged Configuration*

Water filtration using the Aquarius system provides high quality water treatment with minimal ceiling height and footprint.

## Aquarius systems provide you:

- **350 to 1400 gpm treatment per system**
- **Modular construction**
- **Dual tanks for redundancy**
- **Effective removal of turbidity, color, iron, manganese, and arsenic**
- **Automatic operation by PLC and Aquaritrol® chemical optimization**

The Aquarius system minimizes size and cost while maximizing efficiency and performance. It is one of the many Microfloc packaged water treatment systems available to solve your plant needs.

Introduced in 1967, the number of locations realizing the benefits of the Aquarius system continues to grow, with more than 300 units installed to date.

**How it works:** The modular Aquarius unit consists of two complete process trains to allow uninterrupted water service – even when one module is being backwashed. Aquarius units are supplied with chemical pumps to feed coagulant and polymer. Each process train includes two-stage flocculators with adjustable blades. The settling compartment is equipped with horizontal tube settlers and flow distribution baffles. The filter compartment utilizes MULTIBLOCK® under-drains, level controls, mixed media, and air wash. A double bulkhead between the filter and settler eliminates the possibility of unfiltered water reaching the plant outlet. Automatic operation is provided by a programmable logic controller (PLC) with integral Aquaritrol process, providing chemical optimization.



## Applications

- **Surface water treatment**
- **Municipal**
- **Industrial**

## Features

- **Modular construction**
- **Two complete process trains**
- **Automatic operation**
- **Conventional treatment process**
- **Aquaritrol chemical control**

## Benefits

- **Lower installation costs and time**
- **Uninterrupted water service**
- **Less operator attention and higher quality effluent**
- **Automatic chemical feed optimization**





**Tube Settlers for Improved Clarification**

Tube settlers improve the clarification process by decreasing the distance a particle falls to settle out of the water stream. Plastic sheets form approximately 2"-diameter openings which run diagonally from bottom to top. The angle of incline determines maximum settling distance and available surface area. Today, most tube settlers use an angle of 60°, which allows settled sludge to automatically discharge from the bottom of the tube settler. This also requires a sludge removal system below the tube settlers to remove the sludge from the system. In small basins, a passive header-lateral design is often used while a moving sludge-removal header system is commonly applied in large basins.

The Aquarius and Water Boy designs utilize tube settlers with a 7.5° incline from horizontal. This provides more settling area per square foot of basin than 60° designs, allowing for a smaller system footprint. With the low angle of incline, sludge is stored within the tubes rather than settled to the basin floor. During a filter backwash event, the filter wastewater is passed through the tube settlers to flush out settled solids. The solids are then discharged to a waste sump. No sludge removal system is required below the tubes, reducing installation and maintenance costs and simplifying operation.



# Packaged Water Boy™ System

*Delivers Small Flow Treatment*

The Water Boy is a smaller version of the Aquarius. It is more suitable for small communities, low-flow industrial applications, resorts, and recreation sites.

## Water Boy provides you:

- **Small footprint**
- **Complete self-contained treatment**
- **Full factory assembly**
- **Economical installation and operation**
- **Four standard sizes for 10-100 gpm per unit**

## Features

- **Factory assembled**
- **Flocculation, tube settling chamber, and mixed media filter all in one tank**
- **Mixed-media filtration**

## Benefits

- **Minimizes design costs**
- **Minimizes installation costs and time**
- **Highly mobile**
- **"Plug-and-play" operation**



**Water Boy™ Package Treatment System**

Standard units include single-stage flocculation. Optional two-stage flocculation is also available. Compact footprint and complete factory assembly and testing make this an ideal water treatment unit for small systems.

Since its introduction, more than 400 Water Boy units have been installed to date.

# microfloc



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