

RapiSand Plus™

Complete package treatment plant for high solids waters



WestTech®

 SWIRE WATER

RapiSand Plus™

Multiple Stages. Single Tank.

WesTech's RapiSand Plus™ package water treatment system is uniquely designed with a comprehensive process of ballasted flocculation followed by media filtration. This product innovatively combines clarification and filtration into a single unit, resulting in excellent water quality. Ideal for small spaces, it effectively treats high solids waters, flashy waters, and difficult to-treat waters under challenging conditions.

How Does RapiSand Plus Work?

The process starts with the WesTech RapiSand ballasted flocculation system. In the first section, raw water is mixed with coagulant. Two flocculation basins follow, where coagulated water is mixed with polymer and microsand. The microsand is recycled within the system. The polymer binds the microsand grains and the flocculated particles to form a ballasted floc.

Next is the clarification section where the ballasted floc settles, and the clarified water passes up through tube settlers.

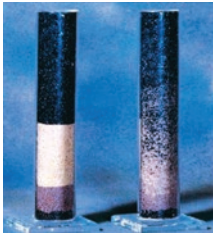
In the final filtration stage, the Microfloc™ mixed media filter system captures any remaining floc particles by running them through a filter bed that contains three media layers of varying size and specific gravity. The bed removes turbidity, suspended solids, color, iron, and manganese. The result is superior quality finished water.

Key Benefits

- **Easy to install:** Compact and fits into a standard-sized building
- **Self-contained:** Two processes in one equipment unit
- **Small footprint:** Much smaller footprint compared to a conventional system
- **Quick start-up:** Reaches steady state operation extremely fast
Plants can be operational in as little as 15 minutes from start-up
- **Stable process:** Creates high-quality water despite variations in raw water conditions – flow rate, turbidity or temperature
- **High performance:** Typical outlet turbidity is 0.2 NTU or less
- **Cost savings:** Energy is saved in operations; money is saved during installation
- **Easy to expand:** Flexible design with additional tanks available

Pilot Unit

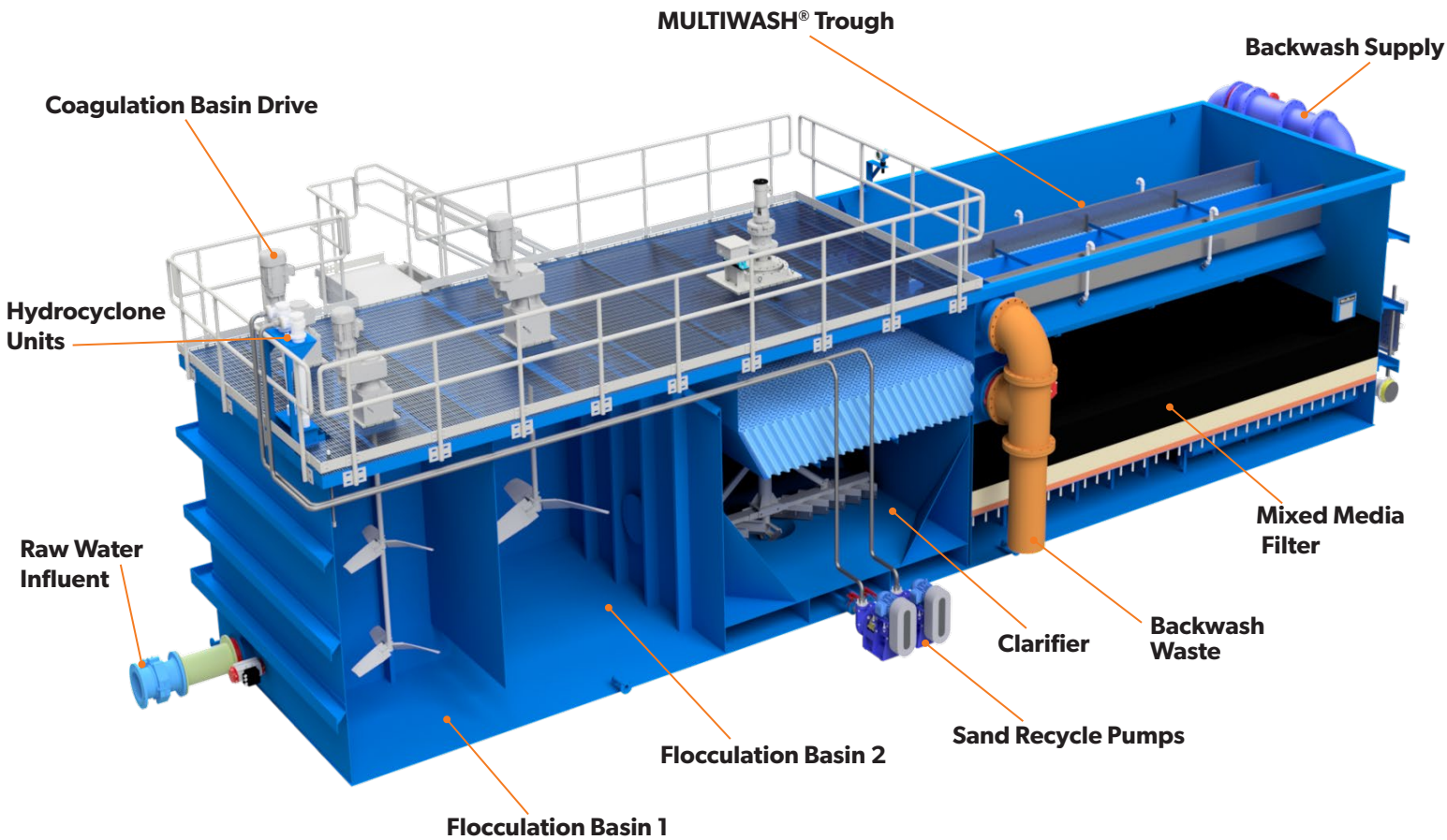
The RapiSand Plus pilot unit can be installed at a specific location alone or in conjunction with other WesTech pilots. The unit is ideal for verifying process design, for evaluating full-scale operation, or for estimating ancillary equipment requirements.



Simple, Versatile, Compact Footprint

The RapiSand Plus provides superior water treatment for small to medium-sized plants. The system is able to handle waters of up to 1,000 NTU continuous turbidity, treated to less than 0.2 NTU turbidity to meet Drinking Water Standards. The equipment's high solids handling is significantly higher than typically seen in any sort of package plant or filtration system. The cost-effective water treatment system is ideal for tight spaces, remote areas, and smaller treatment system needs, with the versatility to treat water under extreme conditions and changing feeds. The filter is backwashed with the patented MULTIWASH® process that is designed to run at higher backwash rates, resulting in a vigorous backwash unmatched in the market.

By combining two successful solutions, the RapiSand Plus provides a compact system with the capacity and performance of a larger system.



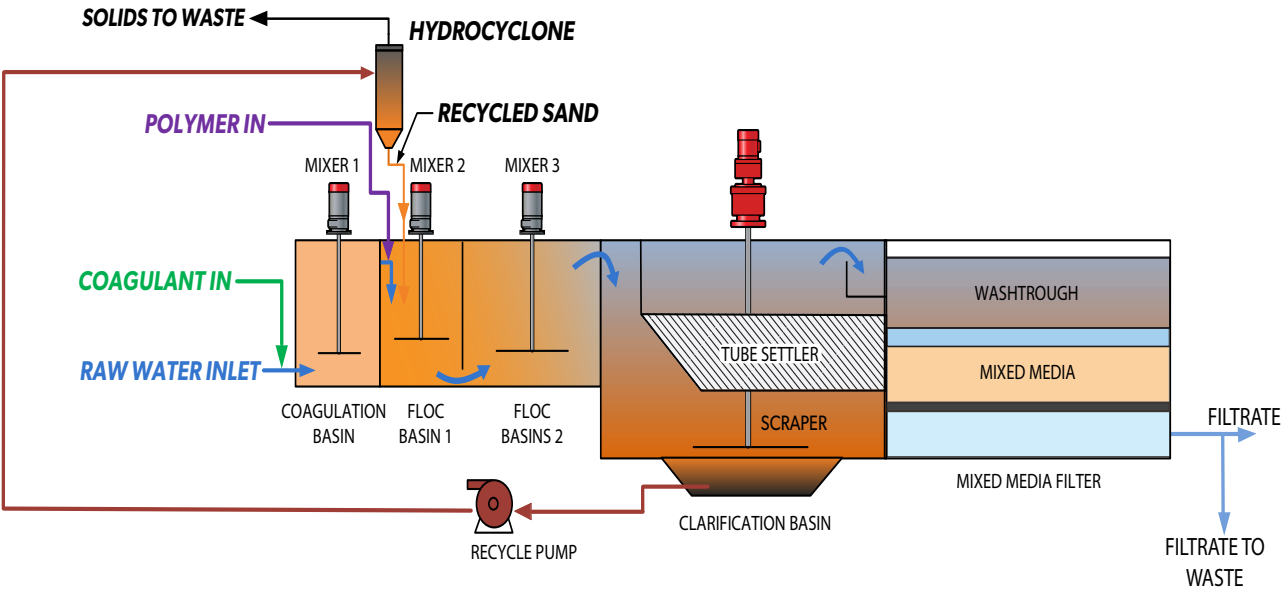
Equipment Spotlights

- **Ballasted flocculation zone** – removes the bulk of the solids
- **Mixed media filter** – coarser material used at the top of the bed becomes progressively finer throughout the entire bed depth, providing high solids storage and allowing for high rates without sacrificing water quality
- **Microfloc Aquaritol® program** – optimizes color and turbidity removal by controlling the coagulant feed to achieve optimum results
- **MULTIWASH® filtration process** – incorporated into the filter design, it combines air and water simultaneously for the duration of the backwash

Applications

- Municipal water
- Ground water
- Surface water
- Algae removal
- RO pretreatment
- Cooling tower makeup
- Boiler feed makeup
- Municipal tertiary wastewater
- Tertiary phosphorous removal
- Industrial process water and wastewater

RapiSand Plus Tank Sizes				
Model	Length	Width	Height	Flow/Tank
RF-700	26'-10"	6'-0"	10'-0"	350 gpm
RF-1050	31'-5"	8'-0"	10'-0"	525 gpm
RF-1400	39'-1"	8'-0"	10'-0"	700 gpm
RF-2100	45'-8"	10'-0"	11'-0"	1,050 gpm
RF-2800	51'-2"	12'-0"	11'-0"	1,400 gpm





Trailer-mounted pilot unit available for lease.

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