



TUBE SETTLER SYSTEMS

SOLUTIONS FOR ENHANCED SEDIMENTATION



Brentwood Tube Settler Systems

Tube settler systems are an inexpensive solution for drinking water and wastewater plants to increase treatment capacity, reduce new installation footprints, improve effluent water quality, and decrease operating costs. At Brentwood, we utilize our knowledge and experience with the clarification process to provide complete tube settler systems that can be custom-engineered for any application. These systems are designed to complement Brentwood's sludge collection and removal systems, allowing customers to purchase a fully integrated solution from a consistent, single-source supplier.



Versatile Design

TUBE SETTLER MODULES

Robust PVC tube settler modules can be easily supported with minimal structures that often incorporate effluent troughs and baffles.

Engineered Strength

SUPPORTS & BAFFLES

Brentwood offers custom-designed support systems for every installation that are engineered to accommodate various loading scenarios with an appropriate safety factor.





Integrated Collection

TROUGHS & WEIRS

Troughs and weirs for tube settler systems are designed to handle peak flows, meet local regulatory requirements, and integrate with system supports.

Sludge Management

SEDVAC[™] SEDIMENT DREDGE

Brentwood offers sludge removal and collection systems, such as SedVac, which are installed beneath tube settler modules to maximize clarifier efficiency.



Ultimate Protection

ACCUGRID® BIO-GRATING

Installed on top of tube settler modules, AccuGrid interlocking panels provide a protective layer from foot traffic, hydraulic impact, and UV degradation.





Tube Settler Modules

Brentwood tube settlers consist of a series of sloped, tubular channels and structural wave sheets that reduce settling distance and combine to form an increased effective settling area. Constructed of robust, yet lightweight PVC, the modules can be supported with minimal structures while maintaining tensile, flexural, and impact strength. Heavy duty sheets are available for high-load applications.

PRECISE ASSEMBLY

Engineered for quality, tube settler sheets align to form uniform modules, evenly distributing load for maximum lifespan.

STIFFENING RIBS

Formed-in stiffening ribs strengthen flute openings for industry-leading weight-bearing capacity.

NSF CERTIFICATION

Modules are certified to NSF/ANSI Standard 61 for drinking water applications.

TRAPEZOIDAL FLUTES

Corrugated sheet forms dual-angle flutes that encourage sediment compaction, allowing even the finest floc to settle.

WAVE SHEETS

Unique wave sheets align perfectly with corrugations on adjacent modules to provide even flute spacing and create a nesting effect.

Also available in Industrial Grade for more severe applications.

6000-Series Models

Tube settler modules are available in standard lengths of 6, 8, 10, and 12 feet and in standard widths of 1 and 2 feet. All modules can be field-cut to accommodate tank variations or uneven tank widths. Tube lengths are calculated based on an average tube angle of 60 degrees.

Model	Vertical	Tube	Design Application
	Height	Length	Rate
IFR-6041	41 in	47 in	3.5 gpm/ft²
	(104 cm)	(119 cm)	(8.5 m/hr)
IFR-6036	36 in	42 in	3.0 gpm/ft²
	(91 cm)	(107 cm)	(7.3 m/hr)
IFR-6030	30 in	35 in	2.5 gpm/ft²
	(76 cm)	(89 cm)	(6.1 m/hr)
IFR-6024	24 in	28 in	2.0 gpm/ft²
	(61 cm)	(71 cm)	(4.9 m/hr)

Nesting Modules

The nesting design of Brentwood tube settlers prevents flow bypass by eliminating gaps between modules. Nesting also enhances structural integrity by allowing weight applied on top of the tubes to be evenly distributed across several packs.

System Components

Based on extensive applications experience and thorough product testing, Brentwood has established criteria and standards for tube settler system design to maximize strength, longevity, and performance. Brentwood's fully integrated tube settler systems include tube settler modules, supports, baffles, effluent troughs, weirs, and protective surface grating. With custom manufacturing capabilities, Brentwood is able to supply additional system components upon request, as well.

COMPLETE SOLUTION

Benefit from purchasing complete clarification systems from Brentwood. Advantages include:

Single-source responsibility

Avoid problems with coordination of engineering, installation, and component pricing by purchasing an economical, packaged system.

S Engineering expertise

Benefit from decades of experience in both plastics and water treatment technologies, engineered into every system and component.

S Exclusive products

Seamlessly integrate with Polychem[®] chain & flight collectors or SedVac[™] sediment dredge systems for efficient sludge management.

Cost-saving approach

Invest in a cost-effective solution with smart material choices that optimize strength and durability.



SUPPORTS & BAFFLES

Brentwood designs support systems for every installation, taking into consideration live loads such as foot traffic and dead loads such as sludge and module weight. The 2-inch support bearing surface distributes load without blocking tube inlets. Baffle systems are integrated with supports for ease of installation.



TROUGHS & WEIRS

Troughs are designed and located to balance flow through the tube settlers and are spaced at a maximum recommended distance of four times the tube submergence. Brentwood supplies a range of trough and weir configurations to accommodate any application.



ACCUGRID® BIO-GRATING

AccuGrid covers the entire module surface to provide complete access to all areas of the system. This protective surface layer can be used in rectangular or circular tank configurations, for new or existing installations, and wastewater or potable water applications.

Applications

Brentwood's tube settler systems are custom-designed to meet the needs of any treatment facility. The robust modules increase allowable flow capacity by expanding settling area and increasing the solids removal rate in settling tanks. By upgrading with tube settlers, existing water treatment plants can increase flow and performance, while saving on operating costs with less filter backwashing. New installations with tube settlers have smaller footprints and can accommodate greater flow in the same area.

CIRCULAR CLARIFIERS

Tube settlers can be added to upflow or solids contact clarifiers to improve performance and handle flow increases. Unlike plate settlers, Brentwood's tube settler modules can be trimmed to exact specifications for full basin coverage.



RECTANGULAR CLARIFIERS

Brentwood's bottom-supported tube settler modules provide a zero-gap solution for improving sedimentation in horizontal flow clarifiers. Module interfaces align to form continuous flutes, minimizing flow bypass for enhanced effluent quality.



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