

Poseidon PPM Clarifier™

Cost Saving Flotation Clarifier/Thickener



Applications

The FIBERPREP/POSEIDON PPM Clarifier™ provides energy efficient water treatment for:

- Mill effluent
- White water loop
- Deinking greywater
- Filtrate polishing
- Sludge & stock thickening

Operating Principles

The FIBERPREP/POSEIDON flotation unit uses dissolved air to separate particles from water. The water to be treated is fed to the unit and mixed with recirculated water containing all the dissolved air required for separation.

Heavy non-floatable particles settle into sludge cones at the inlet of the unit. Lighter particles are separated in two steps. Fast-rising particles rise and form the sludge layer. Small slow-rising particles are intercepted within the unit and floc size is built up, within the POSEIPACK™ intermediate capture surface zone, to increase their buoyancy until they also rise to the sludge layer.

The floated sludge is thickened using a unique system to greatly decrease its water content. An integral scraper removes the thickened sludge to a hopper.

A small portion (typically 10-20%) of the treated water is recirculated and pressurized to absorb the air required for separation.

The FIBERPREP/POSEIDON method of dissolving air produces very small microbubbles, thereby ensuring that the buoyancy of particles of all sizes is increased uniformly. This characteristic leads to efficiencies far exceeding conventional standards.

The modular design allows for tremendous operating flexibility. One unit can handle more than one process stream separately and capacity can be increased by simply adding modules.

The FIBERPREP/POSEIDON PPM Clarifier™ utilizes the principle of intermediate capture surface zones (POSEIPACK) to maintain an extremely low overflow rate.

The low overflow rate (gallons per minute per square foot of surface area) results in a minimum polymer usage.

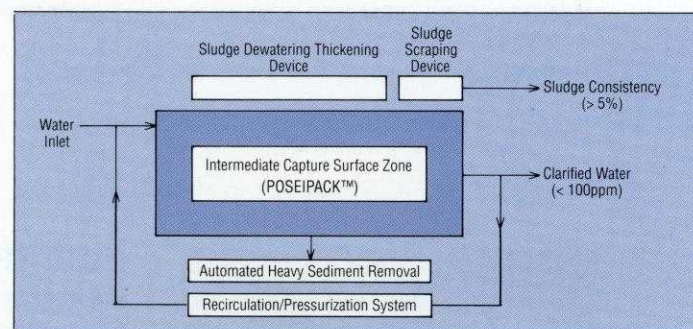
Features and Benefits

With a capture rate of 95% or better and a typical sludge consistency at or above 5%, the FIBERPREP/POSEIDON PPM Clarifier™ is the high performance water treatment unit. Due to its very low overflow rate it tolerates upstream variations in flow rate and feed concentrations, and a single unit can treat multiple streams, delivering significant polymer savings.

This unit reduces sludge volume and dewatering requirements and is fully capable of thickening process streams. By allowing the reuse of water, it saves energy, reduces the need for fresh water and limits effluent volume. Furthermore, the recovery of fibers and other solids means a cleaner effluent.

The premounted unit features a rectangular design which makes maximum use of minimal floor space. And the system requires no field assembly, saving time and money on installation costs. Simply unload, position and connect.

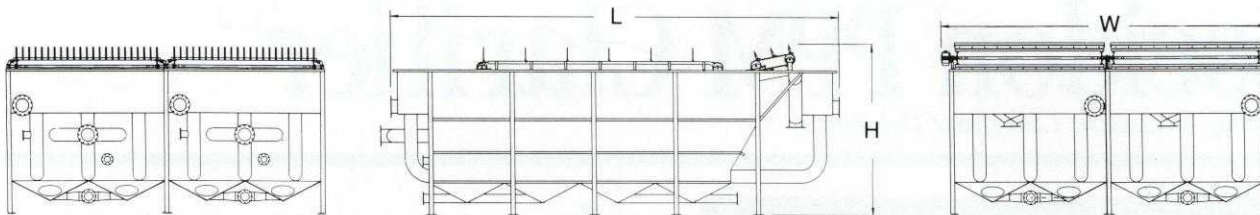
Complete stainless steel construction along with low polymer consumption assures consistent performance and reduced operating costs.



*POSEIPACK™ — Intermediate Capture Surface Zone
 FIBERPREP/POSEIDON
 Poseidon Proprietary Technology—Patented

FIBERPREP

MODELS, SPECIFICATIONS



*MODEL	**CAPACITY (USGPM)	***DIMENSIONS			NUMBER OF MODULES	***WEIGHT (LBS)	
		LENGTH "L"	WIDTH "W"	HEIGHT "H"		EMPTY	FILLED
PPM 200	880	21'0"	8'8"	13'6"	1	11000	66000
PPM 300	1320	21'0"	12'8"	13'6"	1	12500	96100
PPM 400	1760	35'9"	8'8"	13'6"	1	14000	126200
PPM 500	2200	35'9"	10'8"	13'6"	1	16500	157300
PPM 600	2640	35'9"	12'8"	13'6"	1	19500	187800
PPM 700	3080	35'9"	14'8"	13'6"	1	22500	218300
PPM 800	3520	35'9"	16'8"	13'6"	1	25500	248800
PPM 900	3960	35'9"	19'4"	13'6"	2	30500	283500
PPM 1000	4400	35'9"	21'4"	13'6"	2	33000	314600
PPM 1100	4840	35'9"	23'4"	13'6"	2	36000	345100
PPM 1200	5280	35'9"	25'4"	13'6"	2	39000	375600
PPM 1300	5720	35'9"	27'4"	13'6"	2	42000	406100
PPM 1400	6160	35'9"	29'4"	13'6"	2	45000	436600
PPM 1500	6600	35'9"	31'4"	13'6"	2	48000	467100
PPM 1600	7040	35'9"	37'0"	13'6"	2	51000	497600
PPM 1700	7480	35'9"	39'0"	13'6"	3	55500	532900
PPM 1800	7920	35'9"	41'0"	13'6"	3	58500	563400
PPM 1900	8360	35'9"	43'0"	13'6"	3	61500	593900
PPM 2000	8800	35'9"	45'0"	13'6"	3	64500	624400

* Models larger than PPM 2000 available. Contact FIBERPREP for details.

**Capacity depends on characteristics of water to be treated.

***Dimensions and weight are subject to change without notice.

Motor reducers and pumps are not included in these dimensions.



FIBERPREP

FIBERPREP, headquartered in Taunton, Massachusetts, engineers high-performance stock preparation, papermaking and recycling systems. It brings together innovative secondary fiber processing techniques proven throughout the world.

The FIBERPREP product line includes pulping systems, screens, cleaners and deinking equipment that offer reliable, cost-effective solutions to some of the toughest problems in papermaking. As an independent engineering and manufacturing company, it offers the technical expertise to customize technologies for each mill and application.



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