

# Municipal Sedimentation Experts



**WESTECH<sup>®</sup>**

# More Options for Clarification



You may know that WesTech is recognized as the industry leader in spiral blade clarification, but did you know that WesTech offers other leading municipal sedimentation solutions too? Our extensive line of clarification equipment for water and wastewater treatment combines superior design with quality mechanical and operational features.

## Wastewater Clarification

- COP™ Clarifier
- Suction Header
- Suction Pipe
- Conventional Rake Blades
- Solids CONTACT CLARIFIER™

## Water Clarification

- Solids CONTACT CLARIFIER™
  - SuperSettler™
- ## Backwash Water Treatment
- SuperSettler™
  - Decant Clarifiers

## Flocculation

- Flocculating Clarifiers

## Thickening

- Wastewater Thickeners
- Water Thickeners

## Premium Drive Units

## Customization Process Experts

WesTech offers multiple options for sedimentation systems to complete your plant design or improve the performance of your existing operation. Our process experts work closely with you to gather the necessary information about your entire process to customize a system that will meet your requirements. Effective skimming designs, positive scum removal systems, and other accessories are also available to ensure the best possible performance. From design concept to start-up, WesTech delivers quality equipment to meet your sedimentation needs.





# True Solids CONTACT CLARIFIER™

## Water Clarification

The solids CONTACT CLARIFIER™ combines multiple processes into a single basin. For surface waters, enhanced flocculation is combined with clarification. For cold lime softening, precipitation and settling are combined. The advantages include a smaller footprint and improved settled water quality. For either application, the solids CONTACT CLARIFIER is both highly efficient and effective for water clarification.



## Centrifugal Impeller

The heart of a true solids CONTACT CLARIFIER is WesTech's high efficiency, high volume, low head, low shear pump which lifts concentrated settled solids to mix with the inlet flow and disperses the mixture into the upper solids contact zone. WesTech's recirculation impeller has the lowest horsepower draw and less shear than any other impeller on the market.

- High Efficiency
- High Volume
- Low Speed
- Low Shear



## Retrofitting Existing Equipment

WesTech has experience in retrofitting and upgrading all other manufacturers' equipment. Upgrades can range from only a single drive unit to a complete replacement of your existing equipment.



## Additional Applications

- Phosphorus Removal
- Hardness Removal
- Iron and Manganese Removal
- Powdered Activated Carbon Applications
- Pre-treatment For Membranes



# COP™ Clarifier Optimization Package



## Primary and Secondary Clarification

WesTech is a leader in providing proven clarification solutions for wastewater treatment. WesTech's COP Clarifier Optimization Package transformed the industry standards in clarifier design for clean effluent, maximum overflow rates, and optimal underflow concentration.

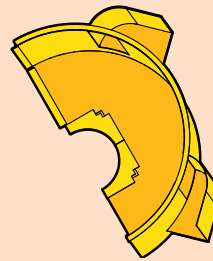
Learn how the COP Clarifier can optimize your primary and secondary clarification needs in our COP Clarifier Optimization Package brochure.

- Highest Quality Clarifier Available
- Easy Installation
- Rapid Removal of Settled Solids
- Lowest Possible Maintenance

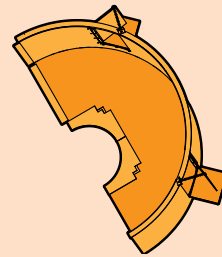


## Multiple EDI Options

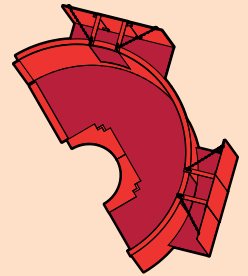
WesTech offers conventional, adjustable, Dual-Gate™, and other Energy Dissipating Inlet well (EDI) options to promote well-flocculated solids in your clarifier. For example, the Dual-Gate adjustable EDI gives you the flexibility to configure your EDI for counter flow, tangential flow, or variable flow conditions to your clarifier.



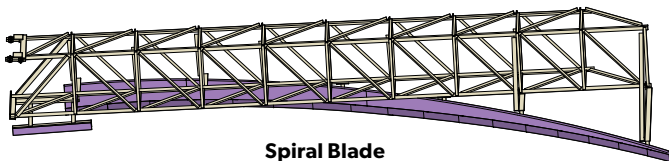
Conventional or Scoop



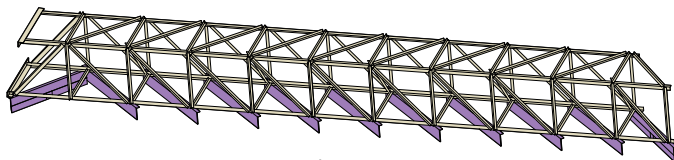
Adjustable Gate



Adjustable Dual-Gate



Spiral Blade



Conventional Blades

## Spiral and Conventional Blades

Spiral rake blades move solids more than four times faster than conventional rake blades. Conventional rake blades remain a viable option for smaller primary clarifier applications.

## Sludge Withdrawal Ring

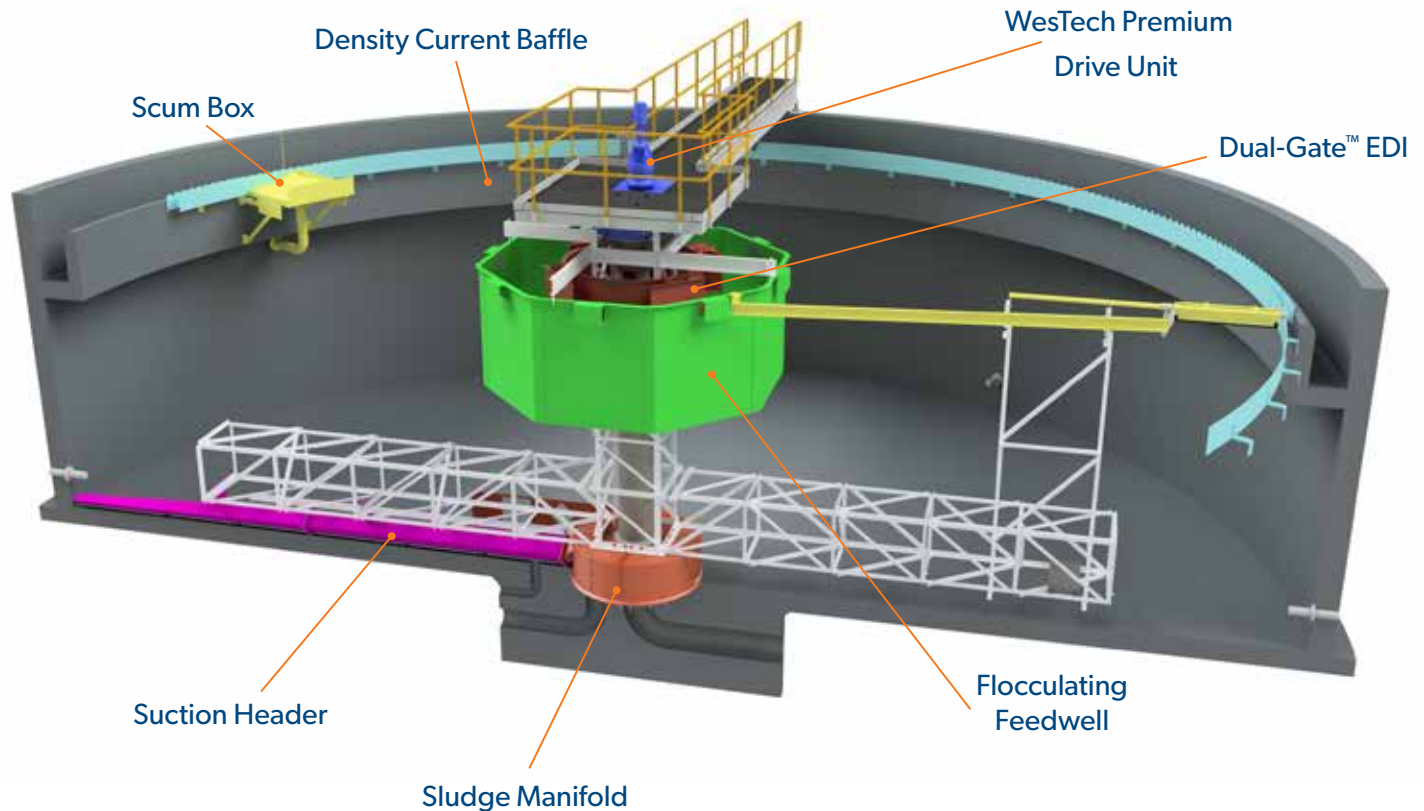
For secondary clarification, the sludge withdrawal ring will reduce high sludge blankets and provide a more consistent underflow concentration to your process and digestion equipment. This system creates a more stable overall process.





# Suction Header Option

WesTech suction headers provide full radius, rapid sludge removal plus the added advantages of the COP Clarifier Optimization Package. Our suction header clarifiers provide high quality effluent with full floor sludge removal in every rotation.



- Rapid Removal of Settled Solids
- Uniform Sludge Removal Across Tank Floor
- Reduces Phosphorus Release in BNR Plants
- Reduces Denitrification in the Sludge Blanket



**OVER 250 SUCTION HEADER CLARIFIERS ARE CURRENTLY IN OPERATION**

## Full-Scale Testing

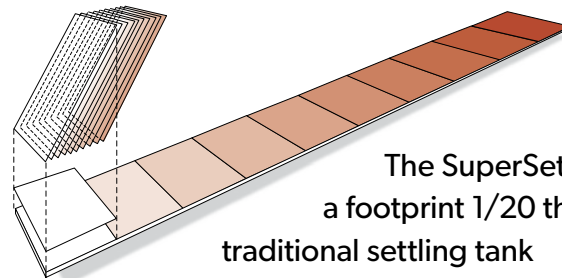
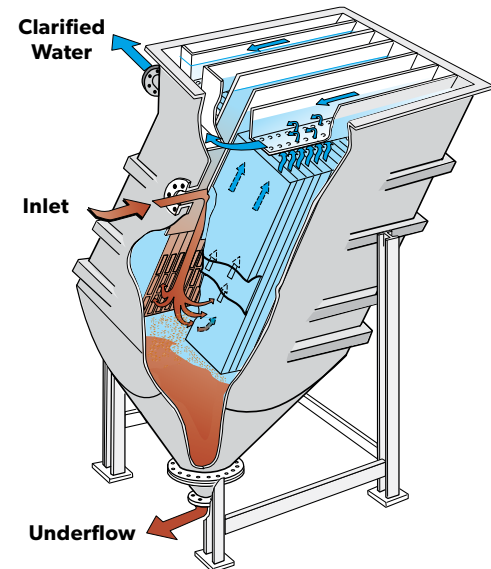
WesTech has built a full scale hydraulic suction header test tank to develop computer algorithms that predict actual flows and headlosses, rather than relying on error-prone dye testing. Our computerized header design software, combined with our COP component sizing software, allows WesTech to provide the most effective suction header clarifiers available.

# SuperSettler™ Inclined Plate Settler



## High Rate Settling

Designed with your limited space in mind, the SuperSettler™ inclined plate settler features the necessary design elements to achieve your separation requirements, achieving maximum efficiency with a minimal footprint.



## Customization

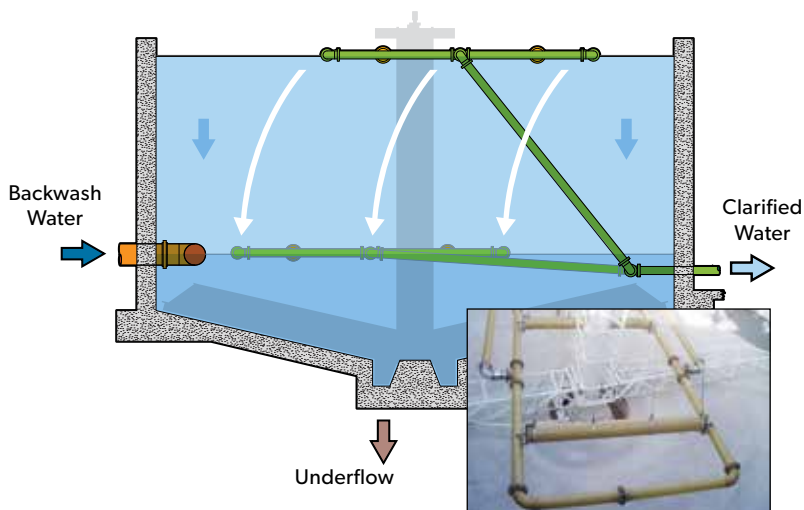
Whether equipped with a sludge discharge scraper, a flocculation tank, or used in either a concrete or steel tank, we have the right inclined plate model to fit your needs.

- SS, FRP, and PVC Plates
- 50, 60, 80, and 100mm Plate Spacing
- Stand Alone Units or Plate Packs

## Applications

- Surface Water Pretreatment
- Backwash Water Clarification
- Primary and Secondary Settling

## Filter Backwash Recovery



## Fill and Decant Clarifiers

- Floating
- Motorized
- Fixed

Fill and decant clarifiers are an ideal fit for your large filter backwash clarification needs. The clarifier basin is designed to handle your backwash surge volume, thus eliminating the need for a separate equalization basin. After the backwash water fills your clarifier basin, the solids are allowed to settle before the clarified supernatant is drawn off by a decant mechanism.

# Thickening

WesTech heavy-duty sludge thickeners are designed to handle sludges from both primary and secondary treatment, advanced waste treatment processes, and lime softening applications. Our thickeners are driven by WesTech's proven drives, individually sized for each application. Positive torque control provides protection against overloads.



Rake arm configuration and component strength are designed specifically for heavy duty service. Rakes with vertical pickets and drive rake lifting devices are available.



## Thickening of:

- Coagulant Sludge
- Lime Softening Sludge
- Wastewater Biosolids

# Premium Drives

WesTech's Premium Drives play a key role in the success of your clarifier operation. Our drive unit delivers a flexible design, precision components, and strict quality control. WesTech guarantees a long drive life and the best fit for your clarifier needs.



Cage Drive



Shaft Drive



## Heavy Duty

WesTech's multiple pinion drive employs a single precision bearing to produce extraordinary torques for industrial applications.



## Optional Cast Ductile Iron

Cast ductile iron drives feature superior corrosion resistance and strength for tough environments.



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