



# COAGULATION AND FLOCCULATION SYSTEMS

## APPLICATIONS

Enviro Concepts Chemical Mixing and Dosing equipment is used prior to solid-liquid separation processes in our waste water treatment plants like the Dissolved Air Flotation (DAF) or the Lamella Clarifier. Some of the applications where coagulation and flocculation systems are used:

- Potable Water Pre-Treatment
- Vehicle and Equipment Wash
- Commercial Trade Waste
- Industrial Waste Water
- Council Waste Water
- Bore water and Sea water Clarification

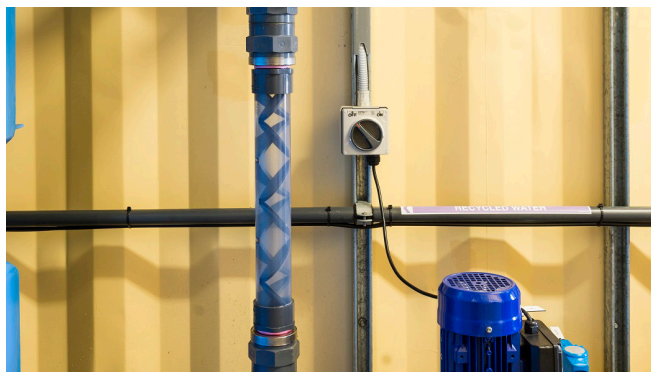
Dissolved and suspended particles are present in most industrial wastewater. To remove these particles from the water, Coagulation and Flocculation processes can be used. Coagulation-Flocculation is a chemical water treatment process often applied prior to sedimentation and filtration.

Enviro Concepts provides proven Pre-Coagulation and Pre-Flocculation auxiliary equipment for a wide range of water and wastewater treatment applications.

## STATIC MIXERS

### Clear PVC Static Mixer (1.5 to 230 LPM)

Enviro Concepts' clear PVC static mixers are designed for quick blending and integration of coagulants and flocculants into the wastewater by imparting turbulence. This is done over a short pipe distance using 6 to 12 mixing elements which also allows for visual inspection of the mixing process.



- PVC clear pipe
- 6 or 12 mixing elements
- Edge sealing and Male NPT threads

Material	Clear PVC
Mixing Element	6 or 12 element
Connection	Male NPT thread
Pipe Diameter	From 10 to 50 mm
Mixer Length	From 165 to 889 mm
Weight	From 36 to 1,219 grams
Max Working Pressure	Up to 2,140 kPa
Typical Flow	1.5 to 230 LPM (0.09 to 14 m <sup>3</sup> /hr)
Pressure Loss	1.7 to 169.0 kPa

## PIPE FLOCCULATORS

### Flocculation Pipe Mixers

Enviro Concepts pipe flocculators are hydraulic flocculators that use the natural turbulence generated by the water flow to mix the wastewater with the injected coagulants and flocculants.



### Pipe Flocculator

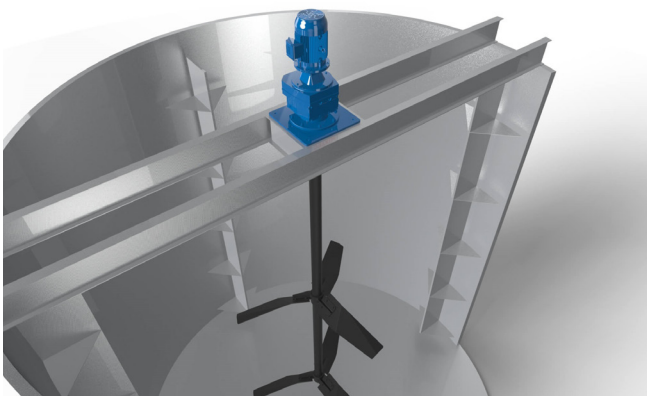
- Chemical injection and sampling ports
- Clear PVC section for visual inspection

Material	PVC or Stainless Steel
Flow Capacity	From 1.0 to 200 m <sup>3</sup> /hr
Inlet/Outlet Connections	From 25 to 250 mm
Approx. Length	From 2000 to 5500 mm
Approx. Width	From 370 to 1400 mm
Approx. Height	From 800 to 1700 mm
Options	Chemical dosing ports
Frame	Coated/Galvanised Carbon Steel

## PORTABLE AND TOP-ENTRY MIXERS

### Slow Speed, Portable Clamp Mount and Slow Speed, Fixed Top Mount

Enviro Concepts' portable and fixed top entry motorised mixers are engineered for efficient low shear liquid blending. Our mixers use high quality motors.



### Motorised Mixers

- Portable clamp mounted or fixed
- Ground gears in helical unit design
- Stainless steel shafts, couplings and impellers

Motor	415V, 3-Phase, IP55
Impeller and Shaft	SS316, other grades available
Power	0.25 to 2.20 kW (0.7-4.9A)
Speed	325-353 rpm

For larger mixers contact Enviro Concepts to discuss your requirements in detail.