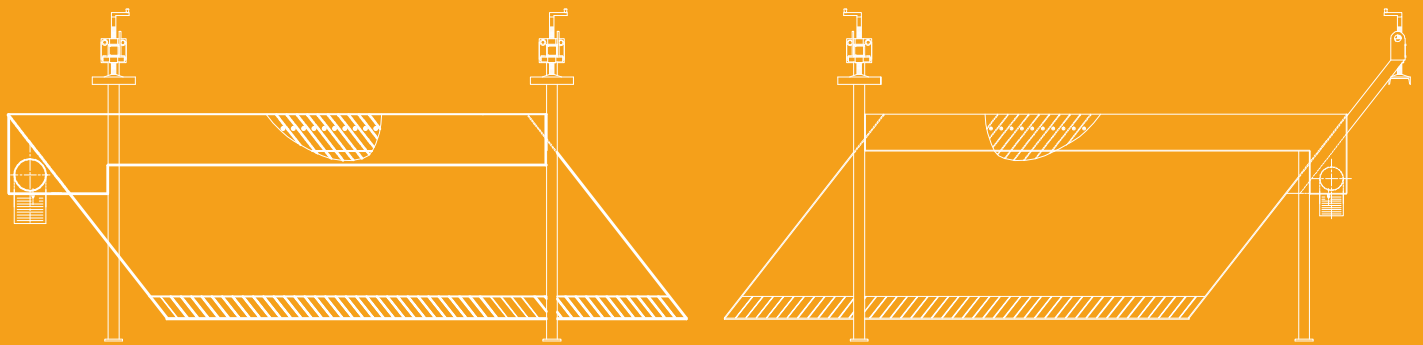




# UniPure Drop-In Clarifiers

*The Next Generation of Mobile Treatment Equipment*



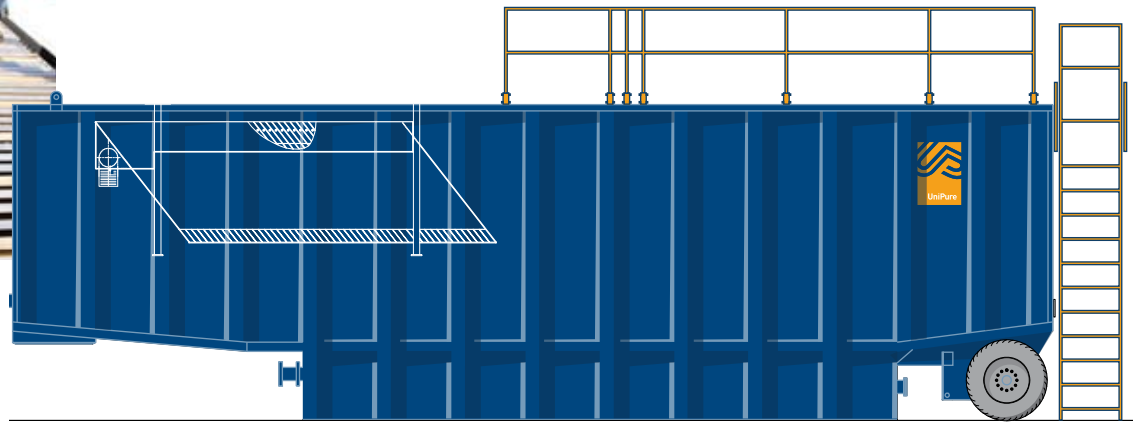
1000

650





An operator can walk on the Drop-In to inspect, wash or replace the individually removable plates while the system continues to operate.



UniPure Drop-Ins are the timely evolution of mobile, rental clarifiers for today's more stringent regulatory requirements. 30 years of practical solids/liquid separation experience and continuous product development have produced the right answer for your water treatment needs and budgetary constraints.

UniPure has successfully combined the treatment efficiencies of our proven inclined plate clarifiers with the mobility of a fixed axle frac tank and the convenience of a nationwide network of local rental offices. This unbeatable combination, supported by UniPure's full-service engineering staff, provides you with the most cost effective and convenient means of ensuring regulatory compliance.

### **Quick Delivery & Quicker Installation**

- A pre-installed Drop-In can be delivered to your site, set in place, leveled and ready for operation in less than 2 hours.
- A Drop-In can also be shipped separately and installed on-site.

### **Maximum Up-Time**

- The capacity of the host frac tank reduces treatment upsets from flow and/or concentration variability.
- UniPure Drop-Ins and Plug Flow Flocculation Packages have no moving parts. There are no mechanical maintenance requirements just an occasional cleaning.

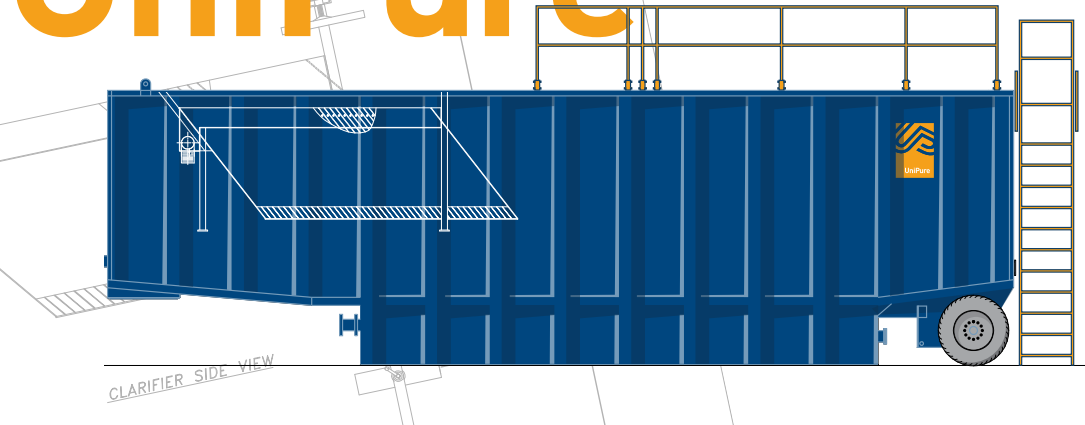
### **Highly Effective Treatment**

- The Drop-In is an efficient inclined plate clarifier using a counter-current flow principle for effective solids separation. As water flows upward, solids settle on the plates and slide into the belly of the frac tank.
- Directing the influent into the side of the unit ensures even distribution across the entire plate.
- Orifice holes in the effluent weirs provide adequate backpressure to further ensure even distribution across the entire inclined plate.
- The belly of the frac tank provides at least 3 times the sludge storage capacity of a stand-alone inclined plate settler.
- All these design features combine to enable a UniPure Drop-In to produce effluent TSS concentrations often less than a few parts per million.

### **UniPure Engineering Support Services**

- Bench-scale settling tests
- Flocculation optimization tests
- Short-term operation
- Operator supervision
- One-Stop-Shop for all treatment equipment required for your application

# UniPure



## Polymer Dilution Module

UniPure's Polymer Dilution Modules activate neat polymer, dilute a polymer solution to a useful concentration and meter the dilute solution into the solids laden flow entering the Drop-In. If adequate utility water pressure isn't available we can add a small booster pump to the module. To maximize "up-time" each module can be disassembled, cleaned and re-assembled in less than two minutes without any tools.

## Plug Flow Flocculation Package

UniPure's Plug Flow Flocculation Package is a zero-energy, in-line mixing device specially designed to optimize interaction between the diluted polymer and the suspended solids. The combination of high energy mixing, low energy mixing and residence time allows the agglomeration of small suspended solids into large floc particles prior to entering the Drop-In. The design uses the energy of the influent feed pump to perform the necessary process steps without mechanical agitation. The Package is skid-mounted for quick installation and easy cleaning.

## One-Stop-Shop

UniPure has teamed with nationwide equipment rental companies to provide you with all your needed treatment components. UniPure is a single source for pumps, instrumentation, media filters, carbon filters, dewatering devices, organics treatment equipment, power generators, air compressors, and secondary containment.



## Industries already using

### UniPure Clarifiers

Agricultural (Product & Equipment Washwater)

Aircraft Assembly Plants

Alumina Producers

Automobile Assembly Plants

Battery Manufacturers

Brass Foundries

Cement Manufacturers

Chemical Manufacturers

Coal-Fired Power Generation Plants

Co-Generation Power Generation Plants

Collection & Recycling Facilities

Copper Smelters

Galvanizers

Landfill Leachate Treatment

Lead Smelters

Metal Finishers

Mining (Coal & Metals)

Paper Manufacturers

Petroleum Refiners

Scrubber Blowdown Treatment

Steel Coaters

Steel Manufacturers

Treatment, Storage & Disposal Facilities

Truck Assembly Plants

Truck & Tire Washwater

Vehicle Maintenance Facilities

## Applications for UniPure Drop-ins

### Dredging Projects

- TSS & silt removal from dewatering system(s).
- TSS removal prior to final discharge.

### Construction, Excavations & Tunneling Projects

- TSS & silt removal from dewatering system(s).
- TSS removal from tire washdown system(s).

### Groundwater Remediation

- TSS removal prior to organics treatment.
- Pretreatment prior to filtration.
- Used to separate solids from precipitation process.

### Potable Water Pretreatment

- Pretreatment prior to filtration.

### Stormwater Run-off (to meet NPDES requirements)

- Power Plants (coal pile runoff).
- Municipal Incinerators (ash pile runoff).
- Emergency treatment to protect waterways (post wildfire event).

### Surface Water Remediation

- TSS removal during dewatering of pond.
- Pretreatment prior to filtration.

### Treatment of Acid Mine Drainage

- TSS removal from post-precipitation settling ponds.
- Used to separate solids from active treatment process.
- TSS removal from passive treatment ponds.

### Industrial Facilities

- Temporary needs during existing equipment cleaning, repair or replacement.
- TSS removal while dewatering holding ponds.
- Treating stormwater run-off.

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