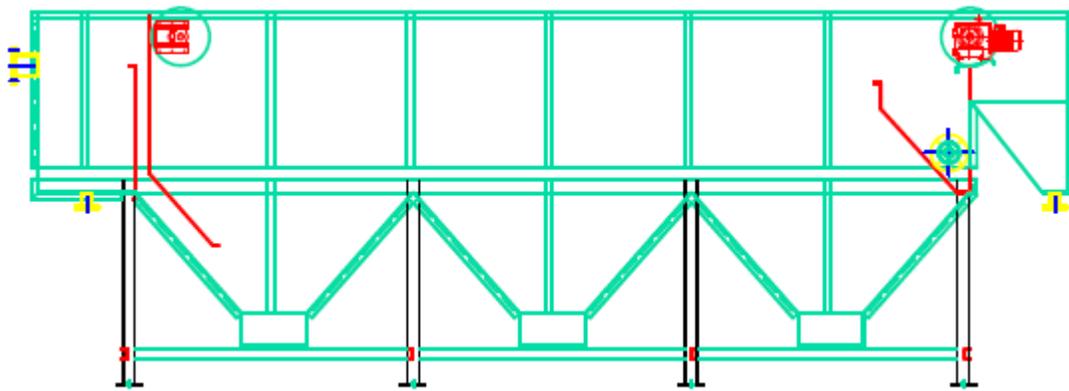


# Description of the design and operation of US-API System

In our standard API oil water separators (US-API) are used to pre-treat and remove free oil from wastewater. The US-API are designed as per API design recommendations (API-421).

USSU designs and manufactures standard gravity oil - water separator.



*We design water for you*

In gravity oil-water separator, the oil-water mixture enters the US-API and is retained for sufficient time. Due to the difference in the specific gravity of oil-grease and water, the separation takes place.

The rise rate of oil droplets in the water can be calculated by using Stokes Law.

When these oil droplets reach the top of the media, they detach and rise to the water's surface. The solids that slide down the tank and are collected in the hopper beneath. Solids are taken away from bottom valves to sludge tanks.

## PROCESS

- Removes up to 99.9% of oil droplets 20 microns and larger
- Effluent quality of less than 15 mg/l free, non-emulsified oil possible.
- Designed as per API-421 and to speed the gravity separation process according to Stokes' Law.
- Models available for flow up to 1 000 m<sup>3</sup>/h.

## DESIGN & EQUIPMENT

- Compact design.
- US-API oil-water separator can be custom designed to your space.
- No moving parts inside the separator (Optional; over the tank for oil collection).
- Easy to clean.
- Equipment designed to prevent short circuiting of wastewater around.
- Design allow solids to settle and to be retained in the separator until discharged at regular intervals.
- Optional oil storage chamber can be provided if required.
- Optional cover can be provided, if required for odour control.
- The tank can be offered in different material of construction stainless steel or carbon steel with epoxy coating.
- Degree of automation can be provided as required from completely automatic to completely manual.

## SPACE & O&M COST

- Compact design, requires smaller footprint and space.
- Almost zero operation and maintenance cost.
- No power consumption for main system. (optional ; oil scrapper)
- No chemical cleaning of the tank required. The tank can be cleaned by just high pressure water jet.

## **USSU API OIL-WATER SEPERATORS ARE USED IN**

Oil Refineries  
Ocean Vessels  
Offshore platforms  
Oil drilling  
Transport Facilities  
Manufacturing Facilities  
Recycling Facilities  
Construction Facilities  
Parking facility runoff  
Storm water sewer overflows  
Rainwater runoff  
Wastewater treatment facilities  
Mineral Industries  
Pulp and Paper Industry  
Automotive Industry  
Oil recovery Industry  
Machine shops  
Landfills  
Power generating plants  
Marine equipment  
Equipment wash down  
Railroad yards

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