POTENTIAL
ENGINEERING

PRODUCT CATALOGUE

Email : sales@potential.net.in

www.potentialengineering.com

Industrial Skimmer

Industrial skimmers are electro-mechanical products that help in recovery of used oil or oily waste. Industrial skimmers are divided into 4 categories, belt skimmer, tube skimmer, Fixed Disc Skimmer and pipe skimmer.

Industrial skimmers help companies to recover oil from their oil catcher pits or oil and grease traps. They have a wide variety of applications and are very cost-effective. Potential Engineering specializes in custom-built industrial skimmers.

Belt Type Oil Skimmer

Tube Type Oil Skimmer

Fixed Disc Type Oil Skimmer

Slotted Pipe Oil Skimmer

Belt Type Oil Skimmer

The Belt type oil skimmer works on the principle of rotating an endless oleophilic belt that picks up the oil from the surface of the oily effluent.

Belt type oil skimmers are mainly used to remove suspended tramp oil from the liquid surface.This works on principle of surface tension. Belt performance and durability depends on the nature of the liquid, chemical composition and temperature.The floating oil sticks to the belt surface and it is removed by a scraper mounted on the unit.

Features

- Available in different capacities - 0-2000 LPH.
- Tandem belt options.
- Multiple belt material options.
- Compact design.
- Plug and play.
- Fully automated operation.
- Optional decantation tank.
- Low maintenance.
- Easily available spare parts.

Application areas

- Oily Water Treatment
- Coolant recovery
- Oil & grease removal

Specifications

- Capacity : 0 to 2000 LPH.
- Belt width : 50mm, 75mm, 100mm, 200mm, 300mm, 500 mm.
- Skimmer MOC : MSPC/ MSEP/ SS304/ SS316/ FRP.
- Belt MOC : Oleophilic Polymer/ PU/ Elastomer/ SS.
- Motor : Flameproof/ Non Flameproof.
- Accessories : PVC hose.

Industries

Tube Type Oil Skimmer

A tube oil skimmer is a surface tube oil skimmer that can effectively remove floating surface oils by means of an oleophilic endless tube.

The tube floats over the surface of liquid in the tank or pit and collects the free floating oils. It has a unique wiper combination attached to the tube itself in addition to the ceramic finger guides on the skimmer. The skimmed oil gets collected in a trough and flow by gravity to the oil sump. The skimmer comes with an optional swing arm which facilitates easy maintenance.

Features

- Tube floats over the surface & can adjust to changing in water level.
- High quality imported tubes.
- Two options are available in mounting i.e. floor and cantilever pole.
- Cantilever pole mounting skimmer comes with swing arm for easy operation in large tanks.
- Special design wiper for effective oil skimming.
- Skimmer comes in single pulley or double pulleys variant.
- Plug & play.
- 1 year warranty.
- Low maintenance.s
- Easily available spare parts.

Application area

- Coolant recovery systems
- Oily water treatment

Specifications

- Capacity : 0 to 200 LPH.
- Tube diameter : 19mm, 25mm.
- Skimmer MOC : MSPC/ MSEP/ SS304/ SS316.
- Tube MOC : Special Oleophilic Polymer.
- Number of Pulley : Single/ Double.
- Pulley MOC : AL/ SS304/ SS316/ Nylon.
- Motor : Flameproof/ Non Flameproof.
- Mounting : Floor/ Cantilever Pole.
- Accessories : PVC hose.

Industries

Fixed Disc Type Oil Skimmer

Fixed Disc Skimmer has rotating, oleophilic disc to collect the oil that float on the surface. It is popular as the accessory of coolant tanks.

The rotating discs of the skimmer pick up the oil that comes in contact with them and the oil scraped off from the disc and is collected in a tank. Collected oil is transferred by gravity to the oil sump. Skimmer is driven at fixed speed by an electric drive. It comes in single disc or double disc variant. It can be fixed on the tank containing the liquid to be skimmer.

Features

- Compact design.
- Easy maintenance.
- Tank Top mounting.
- Variation in disc diameter.
- Skimmer comes in single disc or double disc variant.
- Plug & play.
- 1 year warranty.
- Easily available spare parts.

Application area

- Oily Water Treatment
- Coolant recovery
- Oil & grease removal

Specifications

- Capacity : 0 to 30 LPH.
- Disc diameter : 380mm, 600mm.
- Skimmer MOC : MSPC/ MSEP/ SS304/ SS316.
- Disc MOC : SS304/ SS316.
- Accessories : PVC hose.

Industries

Slotted Pipe Oil Skimmer

Slotted Pipe Skimmer is a rotating pipe with an open part of the pipe provided with rotary joints specially designed for submerged operation.

The Rotating Pipe Skimmers have an open part of the pipe that is turned up or above the water level when skimming is not needed, then that pipe is rotated down to water/oil level when skimming is desired. Our unique C shaped designed slotted pipe can be installed in pit where water level variation is up to 2 meter (Higher variation may also be considered). It can be operated manually or by electric motor.

Features

- Economical versatile equipment.
- Capable of removing wide range of light to medium viscous oils.
- Unman operation is possible.
- Unique design suitable for variable liquid levels up to 2 meter.
- Easily available spare parts.

Application area

- Oily Water Treatment
- Fats removal
- Oil & grease removal

Specifications

- Size : 3" or Higher.
- MOC : SS304/ SS316/ AL or other material on request.
- Skimmer Drive : Manual/ Electric/ Hydraulic.
- Swivel Joint : Sealed for Submerged operation.
- Automation : Can be done on request.

Industries

Oil & Gas

Wastewater & Water

Power

Steel

Mining

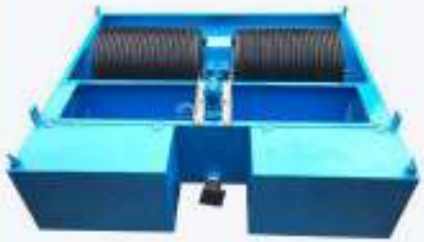
Rotary Skimmer

Rotary oil skimmers are efficient for separation of free floating oil from the effluent using oleophilic rotating disc, drum or brush & have wide variety of applications in Refineries, Power Plants, Oil spill Response.

Rotary Skimmer is specifically designed as an economical, versatile equipment suitable for various oil recovery applications. The oil adheres to the rotating oleophilic apparatus and the skimmed oil is scraped into integrated oil collection chamber. The skimmer removes a wide range of oil viscosities.

Disc Type Oil Skimmer

Brush Type Oil Skimmer



Drum Type Oil Skimmer

Multi Module Oil Skimmer

Disc Type Oil Skimmer

Disc Skimmer are designed for efficient removal of free floating oil ranges from light to medium viscous oil. We offer customized solutions as per requirement.

It is specifically designed as an economical, versatile equipment, suitable for various oil recovery applications. The oil adheres to the rotating oleophilic disc and the skimmed oil is scraped into integrated oil collection chamber. Depending on site condition we provide customized solution in terms of automation as well as enhanced oily sludge phase conversion mechanisms consisting of cutters and steam arrangement.

Features

- Economical versatile equipment.
- Capable of removing wide range of light to medium viscous oil.
- Easily available spare parts.
- Easily deployable and manoeuvrable.
- Can be used in shallow draft.
- Can be easily transformed into a self-adjusting weir skimmer.
- Can be interchanged with brush and drum module.
- Optional automation with manual override.
- Optional features oily sludge cutting with steam arrangement.

Application areas

- Oily Water Treatment
- Oil Spill Response

Specifications

- Capacity : 5 to 110 m^3/hr.
- Material of Construction : SS304/ SS316/ PP/ Aluminium.
- Skimmer Drive : Electric/ Hydraulic/ Pneumatic.
- Oil Transfer Pump Type : Positive Displacement/ AODD/ Submersible Centrifugal/Gear Pump.
- Oil Transfer Pump Drive : Electric/ Hydraulic/ Pneumatic/ Engine.
- Hydraulic Power Pack Drive : Electric/ Diesel Engine.
- Control Unit : Electric Control Panel/ DOL Starter/ Pneumatic Control Station.
- Hydraulic Hoses : R2 Grade, MOC: Rubber.
- Oil Transfer Hoses MOC : Stainless Steel/ PVC/ Rubber.
- Sludge cutter bank with steam nozzles.
- Accessories :
  Sludge cutter bank with steam nozzles, Quick release connectors, Camlock couplings, Hose floats, Fixing ropes.

Industries

Brush Type Oil Skimmer

Brush Skimmers are designed for efficient removal of free floating oil ranges from light to heavy viscous oil.

It is specifically designed as an economical, versatile equipment, suitable for various oil recovery applications. The oil adheres to the rotating brush and the skimmed oil is scraped into integrated oil collection chamber. Depending on site condition we provide customized solution in terms of automation as well as enhanced oily sludge phase conversion mechanisms consisting of cutters and steam arrangement.

Features

- Economical versatile equipment.
- Capable of removing wide range of light to heavy viscous oil.
- Easily available spare parts.
- Easily deployable and manoeuvrable.
- Can be used in shallow draft.
- Can be easily transformed into a self-adjusting weir skimmer.
- Can be interchanged with disc and drum module.
- Optional automation with manual override.
- Optional features oily sludge cutting with steam arrangement.

Application areas

- Oily Water Treatment
- Oil Spill Response

Specifications

- Capacity : 5 to 110 m^3/hr.
- Material of Construction : SS304/ SS316/ PP/ Aluminium.
- Skimmer Drive : Electric/ Hydraulic/ Pneumatic.
- Oil Transfer Pump Type : Positive Displacement/ AODD /Submersible Centrifugal/ Gear Pump.
- Oil Transfer Pump Drive : Electric/ Hydraulic/ Pneumatic/ Engine.
- Hydraulic Power Pack Drive : Electric/ Diesel Engine.
- Control Unit : Electric control panel/ DOL starter/ Pneumatic control station.
- Hydraulic Hoses : R2 Grade, MOC: Rubber.
- Oil Transfer Hoses MOC : Stainless Steel/ PVC/ Rubber.
- Accessories :
  Sludge cutter bank with steam nozzles, Quick release connectors, Camlock couplings, Hose floats, Fixing ropes.

Industries

Drum Type Oil Skimmer

Drum type oil skimmers are designed for efficient removal of free floating oil ranges from light to medium viscous oil.

It is specifically designed as an economical, versatile equipment, suitable for various oil recovery applications. The oil adheres to the rotating oleophilic drum and the skimmed oil is scraped into integrated oil collection chamber. Depending on site condition we provide customized solution in terms of automation as well as enhanced oily sludge phase conversion mechanisms consisting of cutters and steam arrangement.

Features

- Economical versatile equipment.
- Capable of removing wide range of light to heavy viscous oil.
- Easily available spare parts.
- Easily deployable and manoeuvrable.
- Can be used in shallow draft.
- Can be easily transformed into a self-adjusting weir skimmer.
- Can be interchanged with disc and brush module.
- Optional automation with manual override.
- Optional features oily sludge cutting with steam arrangement.

Application areas

- Oily Water Treatment
- Oil Spill Response

Specifications

- Capacity : 5 to 110 m^3/hr.
- Material of Construction : SS304/ SS316/ PP/ Aluminium.
- Skimmer Drive : Electric/ Hydraulic/ Pneumatic.
- Oil Transfer Pump Type : Positive Displacement/ AODD/ Submersible Centrifugal/ Gear Pump.
- Oil Transfer Pump Drive : Electric/ Hydraulic/ Pneumatic/ Engine.
- Hydraulic Power Pack Drive : Electric/ Diesel Engine.
- Control Unit : Electric control panel/ DOL starter/ Pneumatic control station.
- Hydraulic Hoses : R2 Crade, MOC: Rubber.
- Oil Transfer Hoses MOC : Stainless Steel / PVC / Rubber.
- Accessories :
  Sludge cutter bank with steam nozzles, Quick release connectors, Camlock couplings, Hose floats, Fixing ropes.

Industries

Multi Module Oil Skimmer

Multi type oil skimmer are designed for efficient removal of free floating oil ranges from light, medium and heavy viscous oil.

The Multi (Disc/Brush/Drum with Weir) Oil Skimmer is a suitable for various oil recovery applications in deep sea and shoreline area. It picks up oil that comes in contact with the disc, drum or brush and is scraped and collected in a tank. It can be operated manually or by remote control. The system is operated by a diesel engine driven hydraulic power pack. It is equipped with a single or dual oil transfer pumps.

Features

- Economical versatile equipment.
- Capable of removing wide range of light to heavy viscous oil.
- Easily available spare parts.
- Easily deployable and manoeuvrable.
- Can be used in shallow draft.
- Can be easily transformed into a self-adjusting weir skimmer.
- Can be interchanged with disc,drum and brush module.
- Optional automation with manual override.

Application areas

- Oil Spill Response

Specifications

- Capacity : 20 to 250 m3/hr.
- Material of Construction : SS316/ PP/ Aluminium.
- Skimmer Drive : Hydraulic.
- Oil Transfer Pump Type : Rotary Lobe/ Positive Displacement AS/ Submersible Centrifugal.
- Hydraulic Power Pack Drive : Diesel Engine.
- Control Unit : Manual/ Remote Control.
- Hydraulic Hoses : R2 Grade, MOC: Rubber.
- Oil Transfer Hoses MOC : PVC/ Rubber.
- TThrusters Drive : Hydraulic.
- Accessories :
  Hose reel, Quick release connectors, Camlock couplings, Hose floats.

Industries

Marine

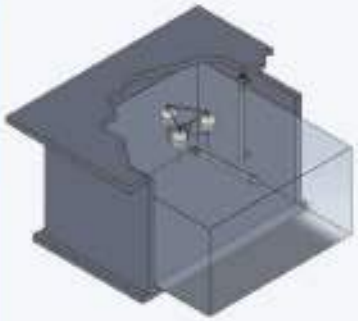
Oil & Gas

Gravity Skimmers

Gravity based skimmer work on the principle of buoyancy of the floating structure & the density difference of the liquids to be separated. It can also be used to withdraw clear liquid from the top surface as in the case of ATF.

Gravity Skimmer facilitates removing of light floating liquid from the close roof tank. Potential Engineering specializes in custom-built gravity skimmer to suit various size & type of roof of tank. It comes in various configuration, giving the flexibility of fixed & flexible pipe with guided direction of travel, thus avoiding hitting.

Floating Funnel Type Oil Skimmer



Floating Suction Type Oil Skimmer for CRWS tank

Floating Suction Type Oil Skimmer for ATF tank

Floating Weir Type Oil Skimmer

Floating Funnel Type Oil Skimmer

Floating funnel skimmer skim free floating oils of various densities from closed roof tank or open tanks.

It works on the principle of buoyancy of the floating structure and gravity outlet flow from the skimmer. Its main components are the funnel and adjustable floats. Free floating oil travels towards funnel by surface tension and gets drained out. We offer skimmer with flexible hose or fixed arm with swivel joints. Guide poles or ropes are provided to avoid unpredictable lateral movement of the skimmer.

Features

- Customized design.
- Mostly used in closed roof tanks where other types of oil skimmers are not recommended.
- No electrical or rotating items.
- Available in different MOC and arrangements.
- Handles oils of different densities.
- Self adjusting.
- Easy installation (All component can pass through 24" Manhole).
- Safe operation in hazardous area.
- Low Maintenance costs.

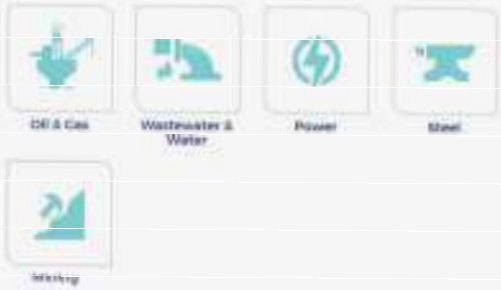
Application areas

- Oil & grease removal
- Oily water treatment

Specifications

- Pipe Sizes : 2"/ 3"/ 4" or higher sizes avilabe on request.
- MOC of Hose pipe : SS304/ SS304L/ SS316/ SS316L or any special hoses for extreme environments.
- MOC of floats : SS304/ SS304L/ SS316/ SS316L/ LLDPE/ AL/ Inconel/ Duplex etc. or special material on request.
- MOC of fixed arm : SS304/ SS304L/ SS316/ SS316L/ AL/ Inconel/ Duplex.
- End connection : Flange end B16.5, A150# RF, A300# RF or higher size on request.
- MOC of guide pole : Same as pipe.

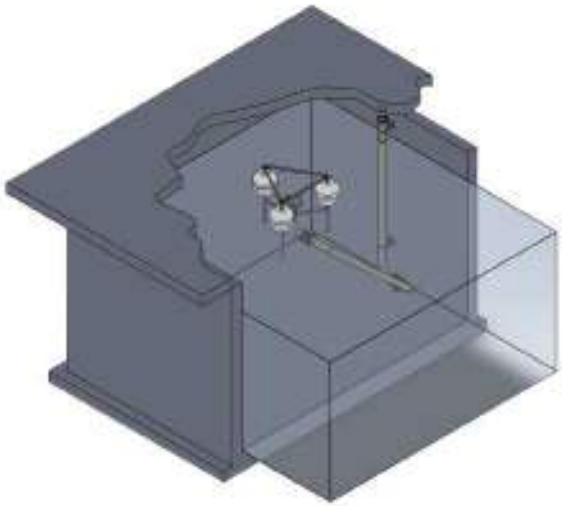
Industries



Floating Suction Type Oil Skimmer for CRWS tank

Floating suction is used in conjunction with an industrial vacuum system or positive displacement pump to withdraw liquid from the top level.

Floating suction system works on the principle of buoyancy. This system consists of LLDPE floats, Stainless Steel articulated suction arm, swivel assembly, vortex breaker, low shear positive displacement pump and pressure relief valve. When the pump is switched on the free floating oil and oily water enter the funnel and pass through articulated suction arm and get discharged through the pump.



Features

- Customized design.
- Available in different MOC.
- Available in different capacities.
- Self adjusting.
- Easy installation inside the tank.
- Safe operation in hazardous area.
- Low Maintenance costs.

Application areas

- Oily water treatment
- Oil & grease removal

Specifications

- Pipe Sizes : 2"/ 3"/ 4" or higher sizes available on request.
- MOC of Floats : SS304/ SS316/ LLDPE or any special material on request.
- MOC of fixed Arm : SS304/ SS316 or any special material on request.
- Pump types : Rotary Lobe/ Progressive cavity/ Industrial vacuum system.
- End connection : Flange end B16.5, A150# RF, A300# RF or higher size on request.

Industries

Oil & Gas

Wastewater & Water

Power

Steel

Mining

Floating Suction Type Oil Skimmer for ATF tank

Floating Suction is installed in vertical or horizontal above/ under ground storage tanks. It is used to withdraw clear liquid from top surface.

Floating suction assembly is installed in tanks storing product whose clear top layer is to be withdrawn, like ATF. Its suction mouth is always just below the top of liquid level thus eliminating the chances of entry of heavier particle. It comprises of a suction pipe with bell mouth for inlet, swivel joints designed for immerssed service & floats to suspend the mouth just below the surface of the stored product.

Features

- Customized design.
- Available in different MOC.
- Available in different capacities.
- Self adjusting.
- Easy installation inside the tank.
- Safe operation in hazardous area.
- Low Maintenance costs.

Application areas

- Oil & grease removal
- Oily water treatment
- Floating Scum removal

Specifications

- Pipe Sizes : 2"/ 3"/ 4"/ 6"/ 8"/ 10"/ 12"/ 14"/ 16"/ 18"/ 20"/ 24" or higher sizes avilable on request.
- MOC of Suction pipe : Aluminium/ SS304/ SS316/ Duplex Steel/ Inconel Alloy or any other material on request.
- MOC of floats : Aluminium/ SS304/ SS316/ Duplex Steel/ Inconel Alloy or any other material on request.
- MOC of Swivel Joint : Aluminium/ SS304/ SS316/ Duplex Steel/ inconel Alloy or any other material on request.
- End connection : Flange end B16.5, A150# RF, A300# RF or higher size on request.

Industries

Floating Weir Type Oil Skimmer

Weir Skimmer, known for its capacity, simplistic design and ease of deployment, it is used to recover light and medium viscous oils in marine oil spills.

Floating weir oil skimmer works on the principle of buoyancy of the floating structure, surface tension of floating liquid & self adjusting weir mouth. It is fitted with an on-board pump to avoid friction loss. A 3-Bar mechanism consists of three floats maintaining the weir in horizontal plane even in disturbance (waves). Pump is hydraulic driven by a diesel engine/ electrical motor driven hydraulic power pack.

Features

- Customized design.
- Available in different MOC and arrangements.
- Available with different capacities.
- Easily handle different viscosity oils.
- Self adjusting.
- Easy installation.
- Safe operation in hazardous area.
- Low Maintenance costs.

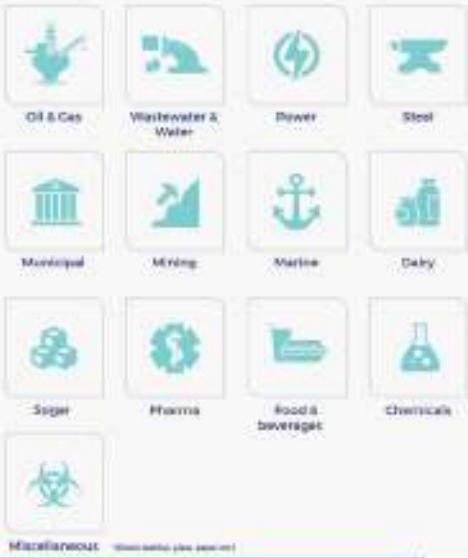
Application areas

- Fats removal
- Oil & grease removal
- Oily water treatment
- Floating Scum removal

Specifications

- Pipe Sizes : 2"/ 3"/ 4"/ 6" or higher sizes available.
- MOC of Hose Pipe : SS304/ SS304L/ SS316/ SS316L/ Special Non Metallic Hoses for extreme environments.
- MOC of Floats : SS304/ SS304L/ SS316/ SS316L/ LLDPE/ AL/ Inconel/ Duplex etc. or special material on request.
- MOC of Fixed Arm : SS304/ SS304L/ SS316/ SS316L/ AL/ Inconel/ Duplex.
- End Connection : Flange end B16.5 - A150# RF/ A300# RF or higher size on request.
- Pump : Submersible centrifugal/ Submersible Positive Displacement Archimedes Screw Pump/ Rotary Lobe.

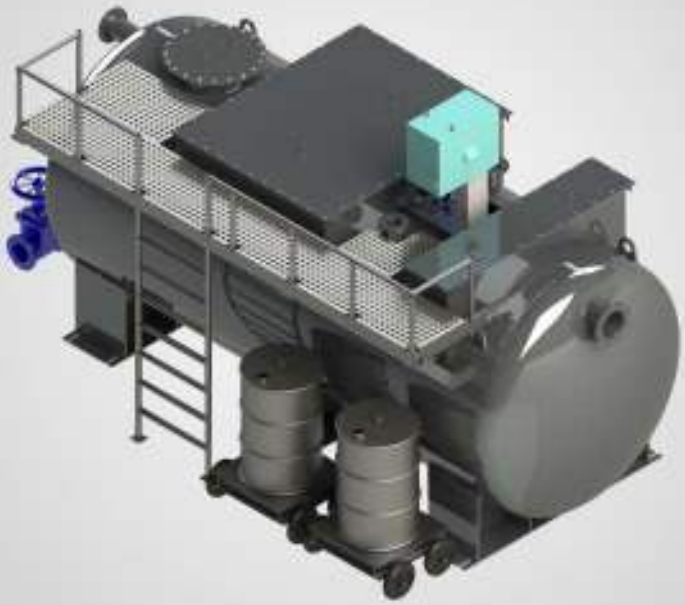
Industries



Oil Water Separators

Oil water separator is designed to separate oil and water by the means of gravity.

We specialize in the design, manufacturing and installation of water treatment systems. We can provide you with a complete oil water separator solution from the range of our product line. Our separators are available in a wide range of standard capacities in either single-wall or double-wall construction. We will also custom fabricate an oil/water separator to satisfy your specific needs.



API Oil Water Separator

CPI Oil Water Separator

TPI Oil Water Separator

Coalescer Oil Water Separator

Hydrocyclone Oil Water Separator

API Oil Water Separator

The API oil-water separator is a gravity based separation system designed as per API 421 by using Stokes's Law.

The design of the API oil-water separator is based on the specific gravity difference between oil and water. The oil layer is skimmed off using chain scraper system, slotted pipe skimmer or rotary skimmer. Bottom sediment layer is removed by a chain and scraper arrangement. Dimensions of API pit are designed so that oil molecule shall reach at topmost surface of fluid before reaching at the end of pit.

Features

- Easy customized design.
- Low Maintenance.
- Available with different capacities.
- Easily handle different viscosity oils.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oil & grease removal
- Oily water treatment

Specifications

- Flow Rate : 5 m3/hr to 7500 m3/hr.
- MOC of API Tank : RCC tank/ MSEP.
- MOC of Belt Skimmer : SS304/ SS316/ MSEP.
- Capacity of Belt Skimmer : 10 LPH to 500 LPH.
- MOC of Chain Scraper Mechanism : SS304/ SS316/ Delrin/ UHMWPE/ MSEP.

Industries

CPI Oil Water Separator

CPI Unit is used as a primary stage of water treatment and utilize plate packs as the main separation device.

The principle of operation of oil water treatment system is the gravity difference between oil and water. The CPI is a stationary, wastewater treatment tank, filled with oily water. Internal baffles and chambers enhance the oil/water separation process. Solid waste accumulates within the CPI while water is discharged by gravity. Separated oil is skimmed through skimmer.

Features

- Customized design.
- Low Maintenance.
- Automated system.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.
- Value for money.

Application areas

- Oily water treatment
- Coolant recovery
- Oil & grease removal
- Oil spill response

Specifications

- Flow Rate : 5 m3/hr to 600 m3/hr.
- MOC of CPI Tank : RCC/ MSEP/ MSFRP/ SS304/ SS316.
- Corrugated Plate Pack : Oleophilic.
- Secondary Coalescer : Oleophilic.
- Oil content at Outlet : <10 ppm.
- Oily water feed Pump : Low shear pump.
- Sludge Removal Pump : Screw pump.

Industries

TPI Oil Water Separator

TPI Unit is used as a primary stage of water treatment and utilize plate packs as the main separation device.

The principle of operation of oil water treatment system is the gravity difference between oil and water. The TPI is a stationary, wastewater treatment tank, filled with oily water. Internal baffles and chambers enhance the oil/water separation process. Solid waste accumulates within the TPI while water is discharged by gravity. Separated oil is skimmed through skimmer.

Features

- Customized design.
- Low Maintenance.
- Automated system.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.
- Value for money.

Application areas

- Oily water treatment
- Coolant recovery
- Oil & grease removal
- Oil spill response

Specifications

- Flow Rate : 5 m3/hr to 600 m3/hr.
- MOC of TPI Tank : RCC/ MSEP/ MSFRP/ SS304/ SS316.
- Tilted Plate Pack : Oleophilic.
- Secondary Coalescer : Oleophilic.
- Oil content at Outlet : <10 ppm.
- Oily water feed pump : Low shear pump.
- Sludge removal pump : Screw pump.

Industries

Coalescer Oil Water Separator

The Coalescer is a superior technology that forces too tiny oil droplets to 'coalesce' to form a giant droplet to produce excellent oil and water separation.

Small droplets can be easily separated by this method. Oil droplets with less than 20 micron get trapped in coalescer and rise to the surface of fluid. Free oil present at the top surface is removed by using belt skimmer, slotted pipe skimmer or rotary skimmer.

Features

- Customized design.
- Low Maintenance.
- Automated system.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.
- Value for money.

Application areas

- Oily water treatment
- Coolant recovery
- Oil & grease removal
- Oil spill response

Specifications

- Flow Rate : 5 m3/hr to 600 m3/hr.
- MOC of Coalescer Tank : RCC/ MSEP/ MSFRP/ SS304/ SS316.
- Coalescer : Oleophilic.
- Oil content at Outlet : <10 ppm.
- Oily water feed pump : Low shear pump.

Industries

Hydrocyclone Oil Water Separator

Hydrocyclone OWS is a skid based complete packaged solution. It is one of the simplest, most powerful OWS available without using any consumables or chemicals.

Our Hydrocyclone oil water separator is a reliable high performance system that requires very little maintenance. We supply a compact system which utilizes optimal real estate. The complete package includes strainers, oil skimmers, oil storage decant tanks and control equipment as standard.

Features

- Customized design.
- Low Maintenance.
- Automated system (Optional).
- Plug & play.
- Safe operation in hazardous area.
- Spares easily available.
- Small footprint.
- High performance.
- Modular.

Application areas

- Oily water treatment
- Oil & grease removal
- Oil spill response

Specifications

- Capacity : As per request.
- Weir Skimmer : Floating funnel type.
- Basket Strainer filtration rating : 3mm.
- Feed Pump : Low shear pump.
- Pump Drive : Electric/ Pneumatic.
- MOC of Hydrocyclone : SS304/ SS316.
- Set pressure of Pressure relief valve : 110% of operating pressure.
- MOC of Decant Tank : MSEP/ MSFRP/ SS304/ SS316.
- Braided Hose MOC : SS316/ SS304.
- Valves : Control valves.
- Control Panel : Flameproof/ Non-flameproof.

Industries

Sluice Gates/ Penstocks/ Open Channel Gates

Gate is suitable for water works applications such as flow control and isolation. it is designed for corrosive & non-corrosive water treatment facilities, sewage treatment plants, water diversion projects, drainage and many other fluid control applications. The gate is design for medium water head application with very low leakage rate requirements.

A device used to control the mass flow of water or wastewater in various environmental and process applications. They are usually square and rectangular in shape. Can be actuated with manual, electric, pneumatic or hydraulic operating systems.

Sluice Gate

Open Channel Gate

Weir Gate

Stoplog Gate

Sluice Gate

Sluice gate is used for flow control & isolation of fluids associated with water, waste water, sewage treatment plants, power generation and irrigation schemes.

Sluice gate is suitable for most of the water works applications such as flow control and isolation. It is designed for corrosive & non-corrosive water treatment facilities, sewage treatment plants, water diversion projects, drainage and many other fluid control applications. Generally, the Sluice gate is design for medium water head application with very low leakage rate requirements.

Features

- Customized design.
- Manual or Automatic operation.
- Flush/ Conventional bottom closure.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

- Size : 150mm to 2000mm.
- Shapes : Square/ Rectangular/ Circular.
- MOC : CI/ SS/ CS/ AL.
- Sealing : 3 sides and 4 sides.
- Actuation : Manual, Motorized, Hydraulic & Pneumatic.
- Design Standards : IS 3042.1965/ IS 13349.1992/ A WW A C513.

Industries

Open Channel Gate

Open channel gate is used to control flow and isolation of fluids associated with waste water, sewage treatment plants, power generation & irrigation schemes.

Open channel gate is mounted between the two side channel grooves, embedded and anchored in grooves provided in the side walls of the channel and anchored on the face of wall at the end of channel using anchor fasteners. It is used for channel water flow control or water distribution control purpose.

Features

- Customized design.
- Manual or Automatic operation.
- Flush/ Conventional bottom closure.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

- Size : 150mm to 3000mm.
- Shapes : Square/ Rectangular.
- MOC : CI/ SS/ CS/ AL.
- Sealing : 3 sides.
- Actuation : Manual, Motorized, Hydraulic & Pneumatic.
- Design Standards : IS 3042.1965/ IS 13349.1992/ A WW A C513.

Industries

Weir Gate

Weir gate is used to control and regulate fluids linked with waste water, sewage treatment plants, power generation, irrigation schemes and process plants.

Weir gate is designed for water level controlling application. It also can be used in water distribution, drainage and other places for flow and level controlling. Weir gate design allows the water to overflow at the top face.

Features

- Custom design.
- Manual or Automatic operation.
- Low Maintenance.
- Easy Installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR Plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

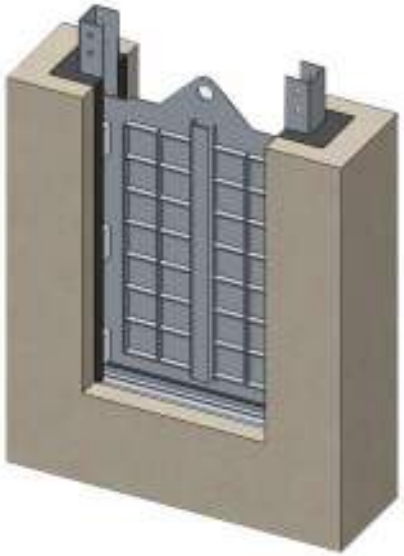
- Size : 150mm to 2000mm.
- Shapes : Square/ Rectangular/ Circular.
- MOC : CI/ SS/ CS/ AL.
- Sealing : 3 sides and 4 sides.
- Actuation : Manual, Motorized, Hydraulic & Pneumatic.
- Design Standards : IS 3042.1965/ IS 13349.1992/ A WW A C513.

Industries

Stoplog Gate

Stop log is used to isolate fluids associated with waste water, sewage treatment plants, power generation, irrigation schemes and process plants.

Stoplogs are designed to cut off or stop flow through a channel. Used in Sewage treatment, Irrigation, Water treatment, Industrial, Flood control, Hydro power. As temporary water stopping device to stop the intake water flow into the plant during maintenance.



Features

- Customized design.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR Plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

- Size : 150mm to 2000mm.
- Shapes : Square/ Rectangular/ Circular.
- MOC : CI/ SS/ CS/ AL.
- Sealing : 3 sides.
- Design Standards : IS 3042.1965/ IS 13349.1992/ A WW A C513.

Industries

Screens

Screens are placed within the drainage system to capture any debris to avoid it from reaching the waterway. Various method of screening is available depending upon the trash size & type. Screens are also available with conveyors to move the collected trash to the collection bin.

Remove floating debris from liquid. Improved productivity & efficiency can be achieved by installing a screen. Effective and easy to install and maintain. Durable enough to significantly cut down on maintenance costs. Potential Engineering specializes in custom-built screens depending on the trash conditions.

Multi Rack screen

Manual Bar Screen

Honeycomb Type Screen

Multi Rack Screen

Screens are suited to serve Industrial, Municipal & Process water screening for arresting floating waste. They are placed at entrance of hydraulic structure, water intake & pumping station.

Multi-rake screen uses inclined bars equispaced to arrest fine, medium and large floating wastes. The screen is cleaned by a mechanized rake which moves in upward direction to collect the waste to discharge bin/conveyor. Multiple number of rakes are provided to clean the waste depositing on bars.

Features

- Customized design.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

- Bar Spacing : 6mm & above.
- Channel Width : 600mm to 2500mm.
- Channel Depth : Up to 15m.
- Operation : Motorized.
- MOC : CS/ SS/ Other material on request.

Industries

Manual Bar Screen

Screens are suited to serve Industrial, Municipal & Process water screening for arresting floating waste. They are placed at entrance of hydraulic structure, water intake & pumping station.

Manual bar screen uses inclined bars equispaced to arrest large and medium floating wastes. Generally these screen is installed ahead of Mechanical bar screen. Cleaning of screen is done manually with the help of manual rake comb provided with the screen. Manual screen can either be fixed type or removable type. It can also be used as a stand by for mechanical bar screen.

Features

- Customized design.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

- Bar Spacing : 6mm & above.
- Channel Width : upto 3mm.
- Channel Depth : Up to 5m.
- Operation : Manual.
- MOC : CS/ SS/ Other material on request.

Industries

Honeycomb Type Screen

Screens are suited to serve Industrial, Municipal & Process water screening for arresting floating waste. They are placed at entrance of hydraulic structure, water intake & pumping station.

Honeycomb screen uses metallic honeycomb conveyor belt to arrest the floating debris. It is rotated with motor, gearbox, shaft & sprocket. It utilizes water jet & brush to remove debris which gets stuck. It is also provided with overload protector, conveyor & trash bin if required. It is mainly used to arrest floating debris 20 mm and above.

Features

- Customized design.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- Oily water treatment
- SBR Plants
- MBR plants
- Pre-treatment solutions
- Post-treatment solutions

Specifications

- Honeycomb Size : 20mm & above.
- Channel Width : upto 2m.
- Channel Depth : Upto 6m.
- Operation : Motorized.
- Moc of Screen : SS/ Other material on request.
- Moc of Conveyor : SS/ Neoprene/ Other material on request

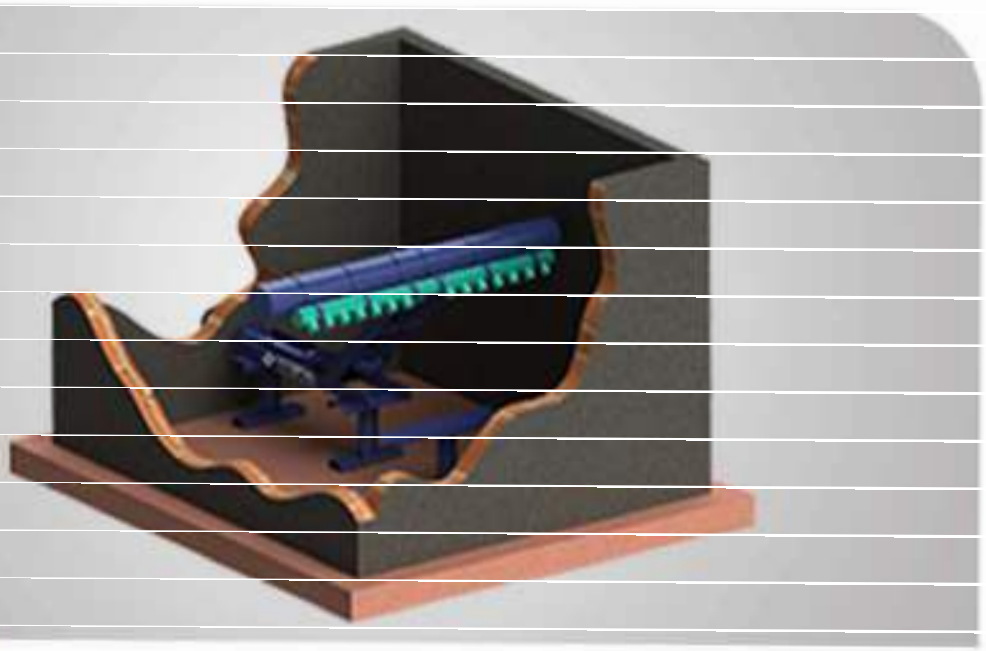
Industries

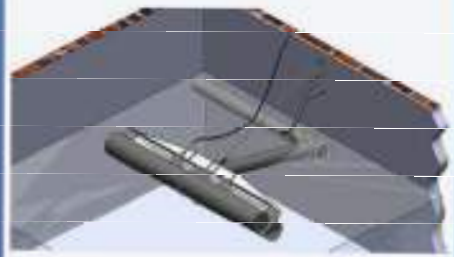
Floating Decanters

Our decanter draws the treated supernatant from below the water surface around (15" to 18") & exclude entry of foam & scum & also solids. It utilizes either of this method for excluding foam, scum & solid

1) Air filled Decant phase
2) Mechanically closed Decanters
3) With spring loaded NRVs.

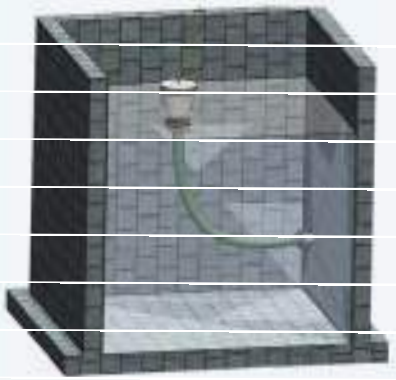
The floating decanter consist of a weir for decanting supernatant liquid and a float for buoyantly supporting the weir. Our decanter successfully prohibit Suspended Solids from entering the decanter during non-decant process in SBR tank. Rate of decantation is controlled by Automatic valves or by pumping.





Ballast Decanter

Fixed Float Effluent Decanter

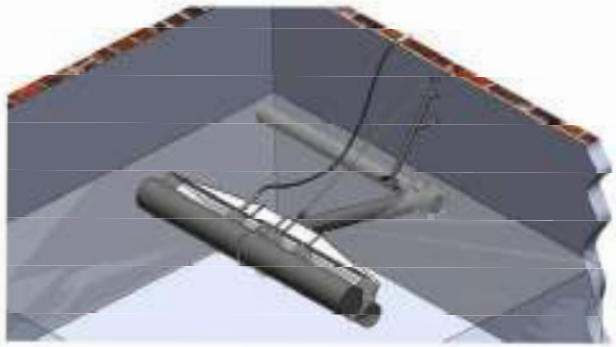


Supernatant Decanter

Ballast Decanter

Decanters are employed in SBR/ Cyclic wastewater processes tank to discharge the post process effluent.

Potential have developed their Ballast decanter, which is a scum/solids excluding floating type decanter. This air powered decanter is driven by the plants aeration system. Decanter has two positions the "Cut off" position & the "Work" position. The vertical movement of the decanter is done by injecting or releasing pressurized air into the body of the decanter.



Features

- Designed to handle large flow.
- Manual or Automatic operation.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- SBR Plants

Specifications

- Decanter Size : 300mm, 400mm, 500mm & 600mm.
- Decanting Capacity at 3 meters height (m3/hr) : 850, 1575, 2450, 2625.
- Three Way Valve Size : 40mm (for decanter size : 300mm & 400mm), 50mm (for decanter size : 500mm & 600mm).
- Compressed Air required : 800 LPM (for decanter size : 300mm & 400mm), 2500 LPM (for decanter size : 500mm & 600mm).
- Compressed Air Pressure : 0.05 kg/cm2 (for all decanter sizes).

Industries

Fixed Float Effluent Decanter

Decanters are employed in SBR/Cyclic wastewater processes tank to discharge the post process effluent.

This scum/solids excluding type floating decanter uses float to move up & down in the basin. It utilizes spring loaded Non Return valves to isolate the effluent piping from the surrounding mixed liquid. This design eliminate motors, gears, drive units, and other electromechanical components. A simple open/close valve is used to control flow through the decanter. Can be operated manually or PLC based.

Features

- Floating Design.
- External mounted valve.
- Spring Loaded valve for solid exclusion.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- SBR Plants

Specifications

- Decanter Size : 150mm, 200mm, 250mm.
- Decanting Capacity at 3 meters height (m3/hr.) : 250, 425, 680.
- Decanting Capacity at 1 meters height (m3/hr.) : 150, 215, 350.
- Control . PLC Based with manual overrides.

Industries

Supernatant Decanter

Decanters are employed in SBR/ Cyclic wastewater processes tank to discharge the post process effluent.

Supernatant decanter collects water from below the top surface to preclude foam, scum or other floatables. A standard open/close valve is used in the discharge pipeing to control the flow rate from the decanter. No electro-mechanical componenet are used inside the tank, thus making the operation & maintenance easy for the operator.

Features

- Floating Design.
- External mounted valve.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.

Application areas

- SBR Plants

Specifications

- Decanter Size : 150mm, 200mm, 250mm.
- Decanting Capacity at 3 meters height (m3/hr.) : 250, 425, 680.
- Decanting Capacity at 1 meters height (m3/hr.) : 150, 215, 350.
- Control : PLC Based with manual overrides.

Industries

Sludge and Scum Scraper Systems

Sludge cum scum scraper utilizes travelling scraping mechanism to remove the scum floating on the water surface which are highly viscous. We provide solution for separating hard to remove scum from the surface of liquid.

It consist of endless chain or travelling bridge which is metallic/ non-metallic & used to scrap the scum from the top surface. This system is suitable for bottom scraping, top scraping and both top & bottom scraping. We provide complete solution from scraping to transporting the liquid/ scum & sludge to the respective pit. It can further be modified to remove sludge & scum during the same operation. Depending on the tank geometry our team suggest the feasibility of Chain sprocket arrangement or travelling bridge arrangement.

Chain Scraper System

Traveling Bridge System

Chain Scraper System

Chain Scraper systems are used where high viscosity oil/ scum is present. They are also useful for eliminating free solids particle floating at the top level.

Chain scraper consist of endless chain which is in metallic/ non-metallic used to scrap the scum from the top surface. This system is suitable for bottom scraping, top scraping and both top & bottom scraping. We provide complete solution from scraping to transporting the liquid/ scum & sludge to the respective pit.

Features

- Customized design.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.
- Reliable.

Application areas

- Oily water treatment
- Coolant recovery
- Fats removal
- Oil & grease removal

Specifications

- Scraping Area : As per request.
- Chain MOC : SS304/ SS316/ MSEP/ Delrin/ PP/ UHMWPE.
- Sprocket : SS304/ SS316/ MSEP/ Delrin/ PP/ UHMWPE.
- Shaft MOC : SS304/ SS316/ MSEP.
- Drive : Electric Motor.
- Trough MOC : SS304/ SS316/ MSEP/ MSFRP/ RCC.
- Oil Transfer Pump : Low shear pump.

Industries

Traveling Bridge System

Travelling Bridges for Grease and Grit Removal are used to remove grease and grit in both municipal and industrial waste water treatment plants.

It is one of the main component in sedimentation ponds that prevent the accumulation of sludge and sediments in the bottom of the pond. It consist of a movable truck lying on two traction trolleys. One surface scraper and one bottom scraper are installed underneath the truck. The mechanism consists of a sludge scraper blade carried by a bridge that spans the width of the tank.

Features

- Customized design.
- Low Maintenance.
- Easy installation.
- Safe operation in hazardous area.
- Spares easily available.
- Reliable.

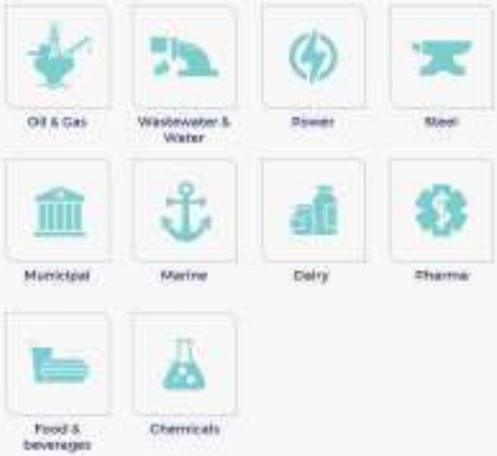
Application areas

- Oily water treatment
- Oil & grease removal

Specifications

- Available for up to 13m wide and 60m long tanks.
- Suitable for : Scum & Grit removal.
- Drive : Electric.
- Power Supply System : Festoon.
- Travelling System : On Rail.
- MOC : Hot dip-galvanized Carbon Steel / 304L / 316L.

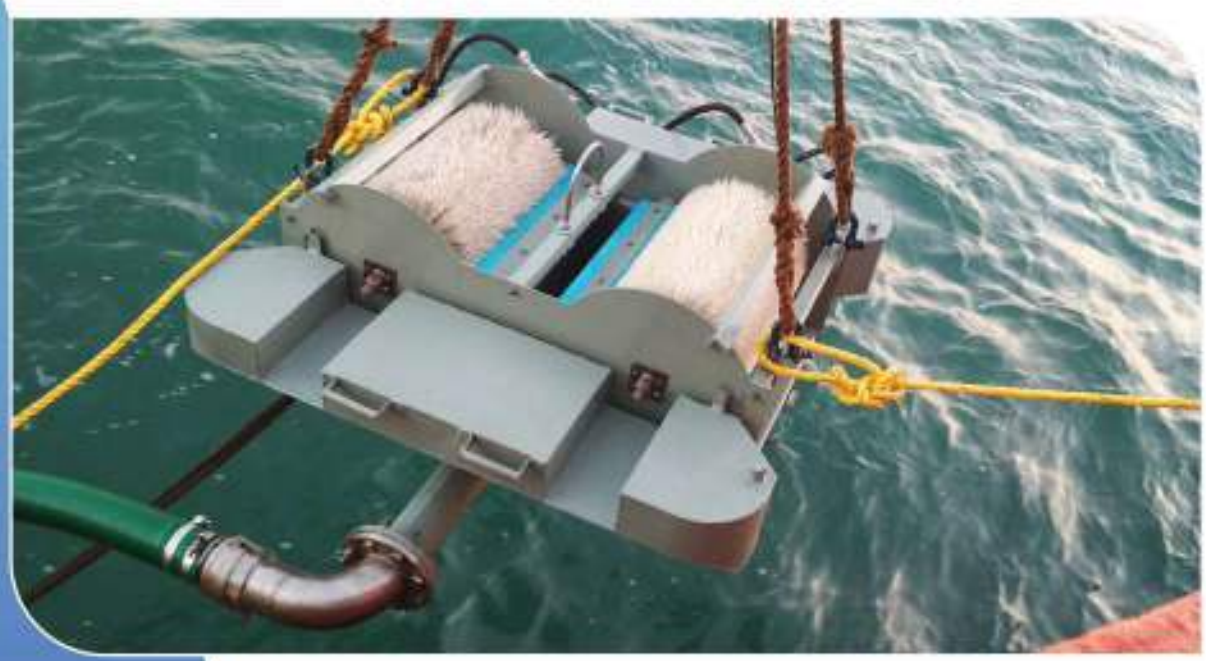
Industries



Oil Spill Response Equipment

Potential Engineering provides efficient oil spill response solutions for all types of spillage. We provide training for oil spill response techniques. Our equipment is suitable on land, sea, ports, rivers etc.

We provide one roof solution for all type of oil spill responses. Equipment such as high capacity skimmer, hose reel, boom reel, hydraulic power pack, chemical dispersant etc. depending upon the spilled oil characteristics, recovery techniques are decided.



Integrated Oil Containment & Recovery System

Boom Reel

Air Blower System for Oil Spill Response services

Oil Spill Dispersant Spray System

Integrated Oil Containment & Recovery System

System consist of heavy duty skimmer with thrusters, umbilical hose reel integrated with hydraulic cylinder arms, turntable and two powerful pumps.

High capacity offshore skimmer handles low to high viscosity oil & also facilitates deployment, operation and retrieval. Wireless remote control and thruster systems to allow remote positioning & operation of skimmer & umbilical hose reel. Two powerful hydraulic driven pumps for handling any type of viscous liquid. Complete system is fitted on a 20ft. container with deattachable steel roof, walls and doors.

Features

- Affordable high capacity.
- Capable of recovering all types of oil.
- Easy interchageable modules i.e. disc, brush and weir.
- Two pumps to handle all types of oil.
- Umbilical hose reel with turntable for deployment and retrieval.
- Thrusters for remote positioning of skimmer.
- Wireless radio remote control for remote operations.
- Readily available parts.
- Low maintenance.
- The skimmer can also be fitted with disc or brush modules.

Application areas

- Oil Spill Response

Specifications

- Capacity : 110 to 250 m3/hr.
- Material of Construction : SS316/ AL.
- Skimmer Drive : Hydraulic.
- Oil Transfer Pump Type : Positive Displacement AS and Submersible Centrifugal.
- Hydraulic Power Pack Drive : Diesel Engine.
- Control Unit : Manual or Wireless Radio Remote Control.
- Hydraulic Hoses : R2 Grade, MOC: Rubber.
- Oil Transfer Hoses MOC : PVC.
- Thrusters Drive : Hydraulic.
- Umbilical Hose Reel : 80m.
- Accessories :
  Quick release connectors & Camlock couplings.

Industries

Oil & Gas

Marine

Boom Reel

Boom Reel is designed for the safe, easy storage, deployment & recovery of containment booms. It is hydraulic driven equipped with hydraulic and manual brake.

Boom reel is suitable for booms of any construction. The reel frame & spool are manufactured from high-quality marine-grade coated steel/stainless steel/marine grade aluminium. It is lifted by forklift channels on all 04 sides & 2 or 4 point arrangements for lifting. It fits inside a std. ISO container and can be locked & secured by either the dedicated lashing points or the built-in ISO container corners.

Features

- Double planetary gear/ hydraulic motor for high torque.
- Counter balance valve for safe operation.
- 2 and 4 Point lifting arrangements for secure lifting.
- Forklifts channels on 04 sides.
- Containers corners for locking and securing.
- Can be fitted in ISO storage container.

Application areas

- Oil Spill Response

Specifications

- Type : Open type.
- MOC : MS/ SS/ AL.
- Width : 900mm to 2250mm.
- Drive : Diesel engine driven hydraulic power pack/manual.
- Hydraulic Hoses : R2 grade, MOC: Rubber.
- Brake : Hydraulic & Mechanical.
- Accessories :
  Quick release coupling,
  ISO storage containers,
  Heavy duty tarpaulin cover,
  Air blower.

Industries

Oil & Gas | Municipal | Marine

Air Blower System for Oil Spill Response services

Air blower is used to inflate & deflate oil containment booms. Capacity of hydraulic or engine driven blower is 400 m^3/hr & backpack air blower is 800 m^3/hr

We provide 3 types of Air blower system typically used for OSR service. The blower can be driven by hydraulic motor, diesel engine and gasoline engine (backpack type). It can be easily configured to either blow or suck the air. It is equipped with relief valve for safety. Engine or hydraulic driven blower are fitted on trolley mounted base with collapsible handles for easy portability.

Features

- Light weight.
- Portable.
- Low Maintenance.
- Ergonomically designed.
- Suitable for most oil booms.

Application areas

- Oil Spill Response

Specifications

- Type : Trolley mounted / Backpack.
- Capacity : 400 m^3/hr-Hydraulic or Engine driven / 800 m^3/hr-Backpack air blower.
- Drive : Hydraulic Or diesel Engine / Gasoline engine.
- Accessories :
  Filling Nozzles,
  Y-junction to connect multiple hose,
  Multiple discharge hose.

Industries

Oil & Gas

Marine

Oil Spill Dispersant Spray System

Oil spill dispersant spray system are used to recover very thin oil slicks which is not possible to recover by mechanical method.

Spray system mounted on small service vessels, such as coastal fishing boats, pilot and work boats, for dispersant application on marine oil spills. Each arm is supplied with stanchion that is fixed vertically on the vessel. Nozzles produce a flat fan shaped pattern striking in line perpendicular to the curve of the vessel.

Features

- Multi-port suction pump to dilute the sea water and dispersant.
- Low Maintenance.
- Ease of operation and deployment at site.
- Self-contained, compact and lightweight.
- Equipped with spark arrestor and electric starter.
- Spray arms length will be as per client's requirements.
- Neat and dilute liquid solution application as per requirements

Application areas

- Oil Spill Response

Specifications

- Drive : Air Cooled Diesel Engine.
- Pump Type : Positive Displacement Pump.
- Pump Capacity : 0-100 LPM.
- Engine Capacity : 3.1 kW/ 4.18 HP.
- Hose Set :
  1" x 10 meters Long - Dispersant Suction Hose,
  1" x 10 meters Long - Sea Water Suction Hose,
  2" x 10 meters Long - Discharge Hose.

Industries

Marine