

a green technology Initiative

Pure Tech India

Uniqueness defined



Desorber Oil Water Separator

for physical separation of two non miscible liquids



www.puretechindia.com

Introduction:

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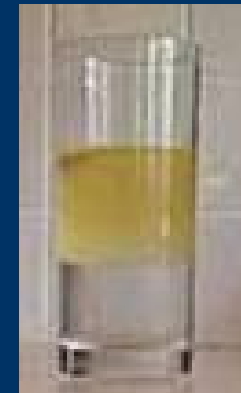
- ETP and STP inlets have oil content in effluent which needs separation.
- Degreasing operation leads to oil contamination in degreaser liquids which needs separation.
- Tramp oil in water soluble emulsion coolants needs to be removed to contain anaerobic bacteria.
- Air compressor storage silos have water condensation with oil escape from air compressor lubrications.
- Storm drains in Petrochemical industries having oil contamination in water.
- Automobile handling stations including garages, Petrol pumps where oil mix up during rains and floor washings needs to be separated.



Oil



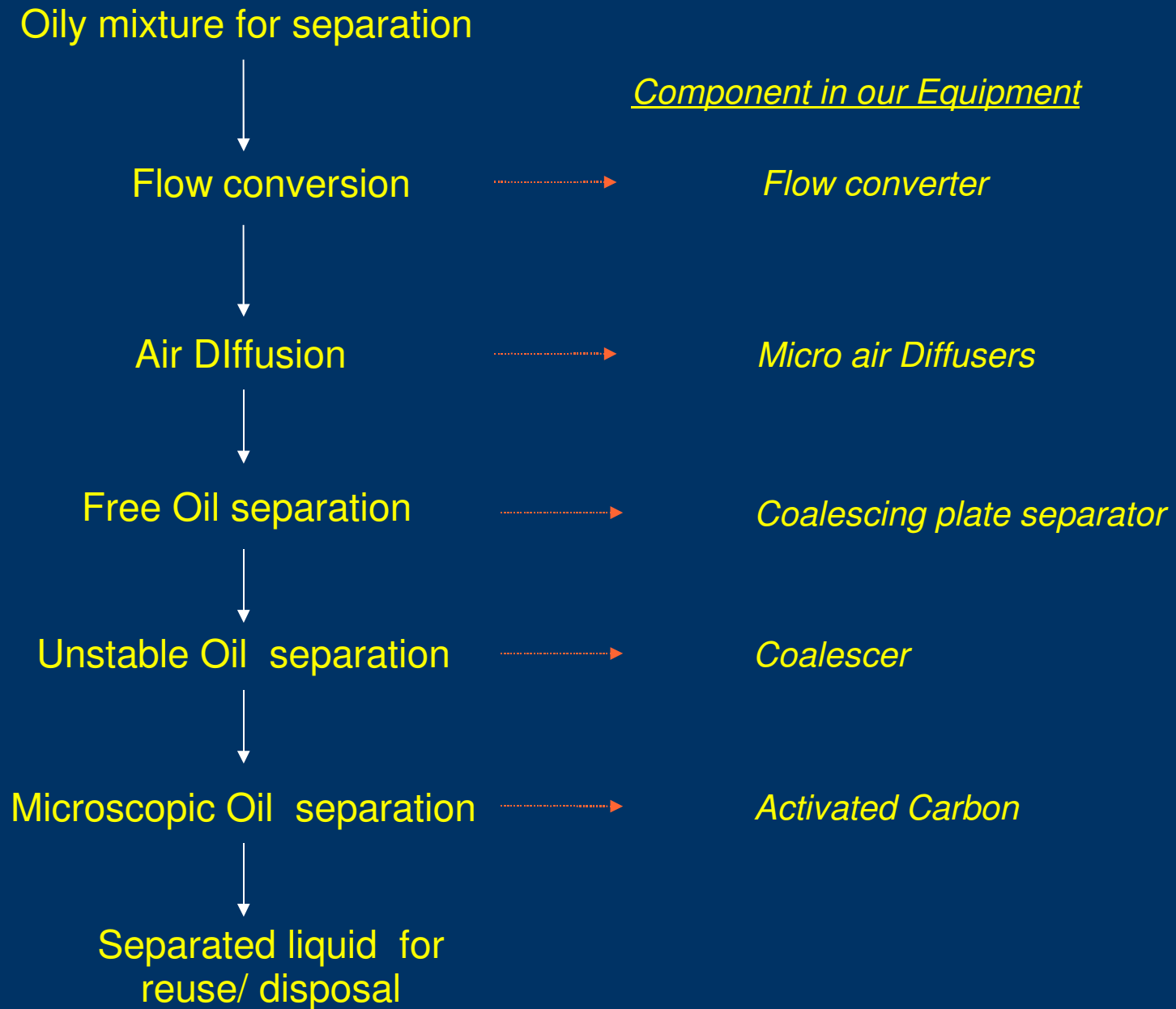
water



oily water mixture

Oil and Solids Separation general process:

Uniqueness defined



Operational Sequence:

- The oily waste is stored in a feed tank.
- The oily waste is gravity fed for smaller capacity equipments and pumped for larger capacity equipments into Desorber.
- The mixture enters the first chamber where flow conversion is done.
- Simultaneously, Air diffusion in minimum quantity is injected into the mixture to allow for faster separation of micro oil molecules by cohesion.
- The mixture enters the second chamber containing CPI sheets which effectively separate oil and solids in pre designed sectional compartments of the cpi pack.
- The mixture enters the third chamber for unstable emulsion breakage and oil liquid separation.
- The coalescer outlet enters the activated carbon chamber for micro oil molecules separation.
- The outlet is discharged or stored for reuse as per requirement.
- The outlet can be integrated with automatic re-routing systems with oil water alarms for quality control.

Flow converter and Air diffusion



Air Diffusion and Flow Conversion:

Flow converter used for turbulence reduction and laminar flow conversion.

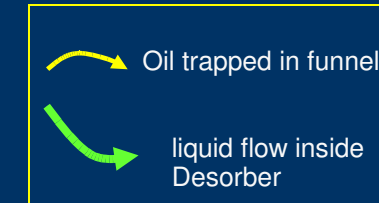
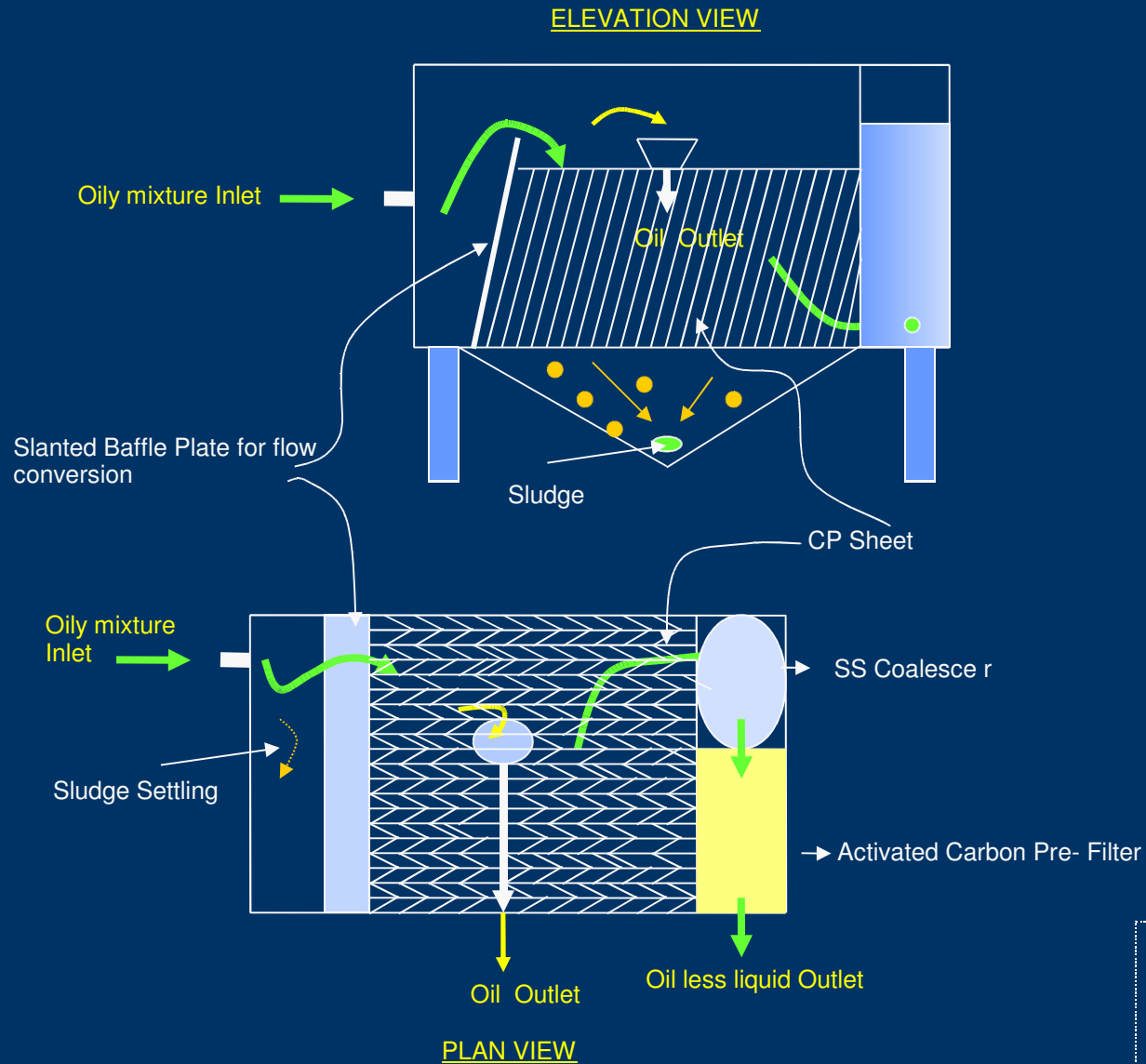
Air Diffusion for cohesion of microscopic oil particles as bigger molecules and faster separation of oil and liquid. Helps in suspended solids separation and odour removal also

Coalescing Plate Separator:



Oily mixture sectional conversion and separation of oil and solids effectively using CPI sheets with optimum inter plate distance and position. The number of sections and sheets vary for each application requirement, flow characteristics, contaminant characteristics. The material of construction will vary between PVC, Stainless Steel, GFRP and Acrylic/ Glass.

Desorber Liquid Flow Illustration- with Funnel system:



Oil removal system offered are both Funnel and Belt Skimming for smaller capacities; for larger capacities Belt Skimmers are standard.

Desorber System Illustration:



Desorber System Large Capacity:



Our Customers in Engineering Field:

- M/s L & T Komatsu Ltd, Bangalore
- M/s Tyco Sanmar Ltd, Viralimalai, Trichy
- M/s Bharat Heavy Electricals Limited, Haridwar
- M/s Rane Madras Limited, Varnavasi, Kancheepuram district.
- M/s Wipro Infrastructure Engineering Limited, Sriperumbudur.
- M/s Gabriel India Ltd, Parwanoo through M/s Electrocoat Equipments Pvt Ltd, Pune
- M/s Kirloskar Oil Engines Limited, Kolhapur through M/s Electrocoat Equipments Pvt Ltd, Pune
- M/s Power Build Ltd, Vallabh Vidya Nagar, Gujarat
- M/s Winergy Systems, Chennai through M/s Water Technology, Chennai
- M/s Spicer Ltd through M/s Electrocoat Equipments Pvt Ltd, Pune
- M/s Caparo Engineering Pvt Ltd, Sriperumbudur
- M/s Bimetal Bearings Ltd through M/s Water Technology Pvt Ltd, Coimbatore

Our Customers in Petrochemical and others:

- M/s Acc Limited, Gagaj Cement Works, Barmana, Himachal Pradesh
- M/s Sandvik Asia Ltd, Chatral, Ahmedabad.
- M/s Asia Motors, Kutch through M/s Electrocoat Equipments Pvt Ltd, Pune
- M/s Neel Techno Aids Pvt Ltd, Pune
- M/s Cashman Investments Limited, – *Export to Nigeria*
- M/s Compatible Solutions LLP - *Export to Singapore, Malaysia*
- M/s HBL Power Systems Ltd, Vizianagaram
- M/s Indian Oil Corporation Ltd, Radhampur through M/s Jaihind Projects Limited, Ahmedabad
- M/s BHEL, Hyderabad through M/s Doshion Ltd, Ahmedabad – *Exports to Iraq and Bangladesh.*
- M/s Automotive Manufacturers, Vishakapatnam through M/s A&P Systems, Vishakapatnam
- M/s Uniparts Ltd, Vishakapatnam through M/s A& P Systems, Vishakapatnam
- M/s Tupperware Ltd, Hyderabad
- M/s Shell India Marketing Limited, Chennai
- M/s Punj Lloyd, Indonesia for Shell – *Export to Indonesia*
- M/s FABCO LLC, Dubai – *Export to Dubai*

Benefits:

- Physical Separation of oily liquid mixtures.
- Customisable to suit Application requirement.
- Material of Construction suited for all types of industries.
- Relocatable unlike the conventional civil separators.
- Modifications at site possible.
- Compact and effective.

Thank You

For Queries, Please contact:

E- Mail: contact@puretechindia.com

(Photographs shown are taken from our supplied equipments and there are feature additions taking place in each new equipment manufactured)