

Vibrating Membrane Used Oil Recycling System

Process Flow Chart

Feed Tank

Used oil from the surface of sedimentation tank is pumped to this cone-bottom feed tank.

Heat Exchanger

To increase the temperature of used oil to 80°C - 85°C.

Sedimentation Tank

Pretreatment & removing water, sand & large solids.

Vibrating Membrane

Flash Drum / Condenser

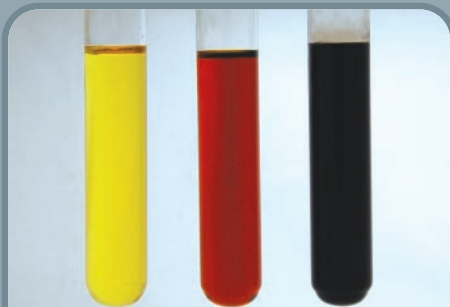
To remove and condense water in used oil.

PLC Unit

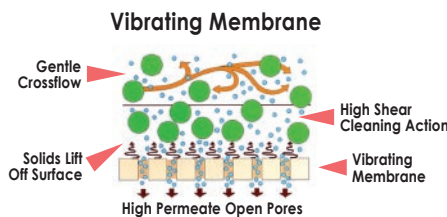
Internet enabled Programmable Logic Control Unit allows on site or remote monitoring and control.

Decolourisation System

To lighten the color to meet the requirements of base oil or higher grade lubricant.



Comparison of Recycled Fuel Oil / Lubricant (Left) & Used Oil (Right)



VMAT includes Vibrating Membrane, can filter Carbon Soots & Metal Particulate in Used Oil. Intense shear waves at the membrane surface causes solids and foulants to be lifted off the membrane surface and prevents fouling.



VMAT - Vibrating Membrane Used Oil Recycling System

VMAT I-36 Specifications

Model	VMAT Series
Type of Membrane	MF
Membrane Area	400 sq. feet
Daily Treatment Capacity	7,000 - 9,000 L
Recovery Rate	50 - 70 %
Feed Source	Used Motor Oil or Similar Lubricants
Filtration Temperature	80 - 85 °C
Filtration Pressure	50 psi
Steady Flux	2.5 - 3.5 G.F.D.
Power Requirement	380 VAC, 3 - phase, 50/60 Hz
Power Consumption	16.5 kW
Heating Energy Consumption	15 kW
Filter Pack Life Warranty	One Year
Working Environment	Vibrating Membrane: Indoor Other Components: Outdoor



- Low Cost
- Low Pressure
- Low Temperature
- Small Footprint
- Used Oil Recycling System

An Award Winning Technology



2006 IChemE Awards:
- Environment Award
(Presented at London, U.K.)



2006 Wall Street Journal:
- 9th Asian Innovation Award, Bronze Prize
(Presented at Singapore)



2005 Hong Kong Awards for Industry:
Machinery & Equipment Design Category
- Grand Award



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