

# Tramp Oil Separation

## Removal of Free Oils from Industrial Effluents.

System has been designed and manufactured by AMITL.  
The system is an outcome of years of experience and R&D in filtration and separation.

### General description:

- Specially designed floating head located at machine tank/sump.
- A self-priming or pneumatic transfer pump to deliver contaminated liquid to the unit.
- Effluent baffles and flow trough Special Coalescing media which split between free oils and effluent.
- Clean effluent gravitating back to machine tank/sump.
- Coalesced oil gravitating to a secondary separation tank to maximize separation efficiency.
- 24 ,7 operation.
- Various sizes to fit different flow rates.
- Mobile , Local or Central Systems.

### Optionally Features:

- U.V. or Ozone antibacterial treatment.
- Annexable with filtration modules.
- Third oil separation stage via special filter to assure residual oil removals.
- Total flow rate 120 lpm @ 5 micron ISO16\14 level of filtration.

### Benefits:

- System designed to fully recondition industrial effluents.

### Applications:

- Removal of Tramp Oils from soluble at machine tools.
- Removal of Tramp Oils from soluble at pipe /metal production.
- Removal of Tramp Oils from industrial waste water & effluents.
- Removal of Tramp Oils from wash water.

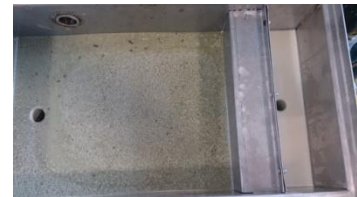
AMIT-OR design & manufacture filtration system for machine tools, process industry including recycling of liquids and solids.

For more details contact:



**A.M.ITL Industrial Technologies Ltd.**

ENGINEERING AND PRODUCTION OF INDUSTRIAL FILTRATION,  
RECYCLING, ENVIROTECH SOLUTIONS.  
SALES AND AFTER SALES SERVICES.



lpm	Coalescer
3	-TOS-03
5	-TOS-05
10	-TOS-10
20	-TOS-20
40	-TOS-40
80	-TOS-80

Normally oils create a layer which float on the coolant. These layer of oil, isolates coolant from free atmosphere and create an anaerobic condition in the coolant. Anaerobic atmosphere create an excellent condition to grow fungus and bacteria's which affect coolant, machine parts and environment. They have a typical heavy smell when entering workshops. The situation is even worst when and if coolant become hot and flow is nearly still (especially at tanks corners, close sections in the tank where coolant easily can be trapped).

### Principle of operation

A floating device freely float in the coolant tanks at the oil layer and extract oil & emulsion mix. The extraction is generated by a pump (pneumatic diaphragm pump or small cavity pump – depend on the applications).

The mixture is pumped up to the T.O.S (tramp oil separator) inlet.

The mixture is forced to over weir trough a specially designed coalescing media which slows down flow and attract free oil droplets to the coalescing media. The coalesced droplets meet other droplets, join into larger droplets which immediately float up on coolant in the coalescing chamber.

The coalesced oil layer become denser and thicker. At a certain point the oil level is high enough to be removed/ skimmed out into an external collection bucket.

The clarified coolant over weir into the clean chamber and gravity flow back to machine tool tank. As the operation is continuously on going the whole coolant tank is clarified. Another benefit of the conception is that ant floating substance in the coolant such as Al. residuals (typically grey layer mixed with oil) are removed as well.

### Mobile MTOS R0

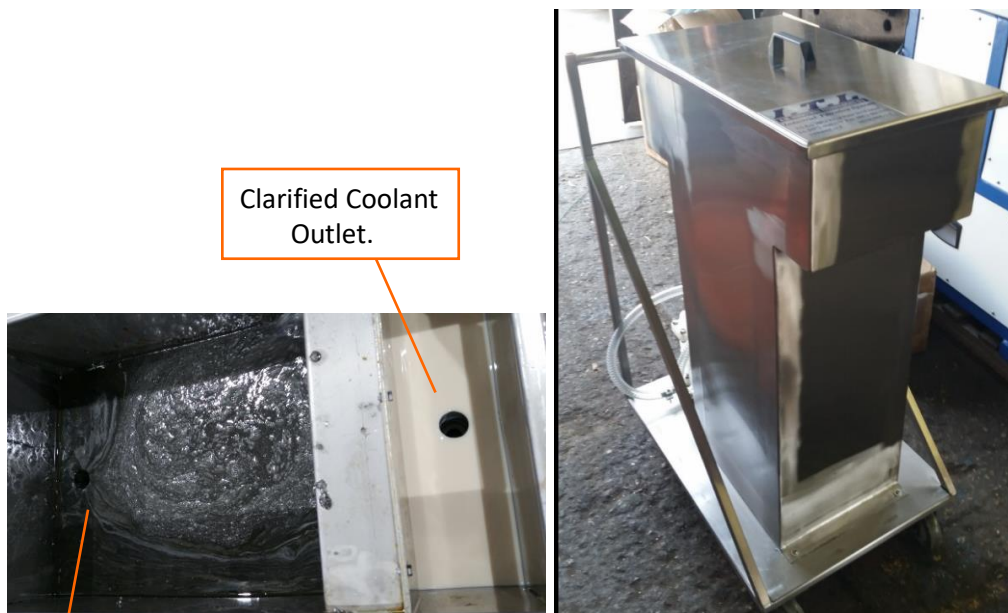
The Mobile Unit working principals are exactly the same as the stationary unit described above. The main differences is the mobility of the system.

The MTOS is located near the MC coolant tank. The suction line is located in the coolant tank.

The clarified coolant line is located in the MC coolant tank. Both lines are located t MC tank by a magnetic pad.

The coalesced oil line is dropped in a collection tank. The air supply is connected and unit start clarifying coolant.

The MTOS R1 is suited with an oil accumulation tank and a float switch to stop MTOS when its full and emptying is needed.



Clarified Coolant Outlet.



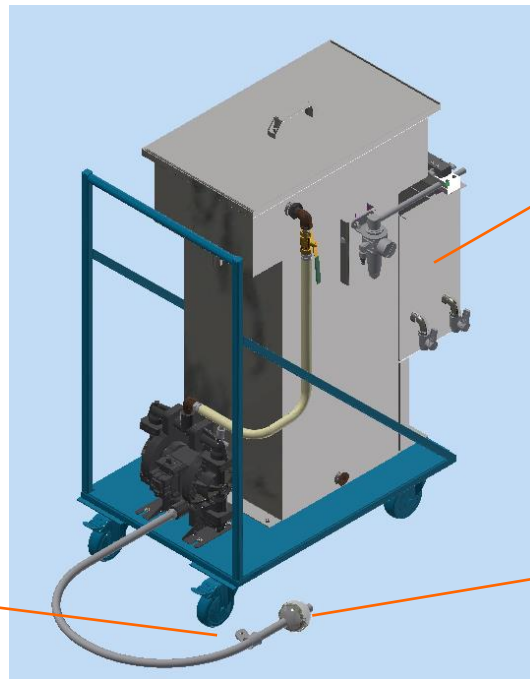
Coalesced oil

Clarified Coolant Returns line to Tank



Floating suction point

Mobile MTOS R1

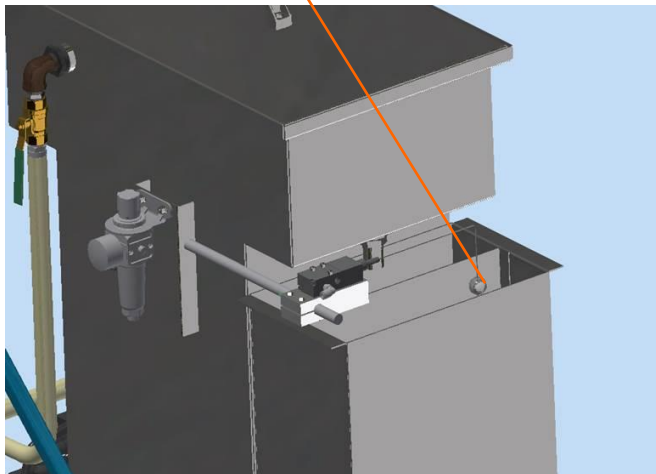


Oil collection Tank

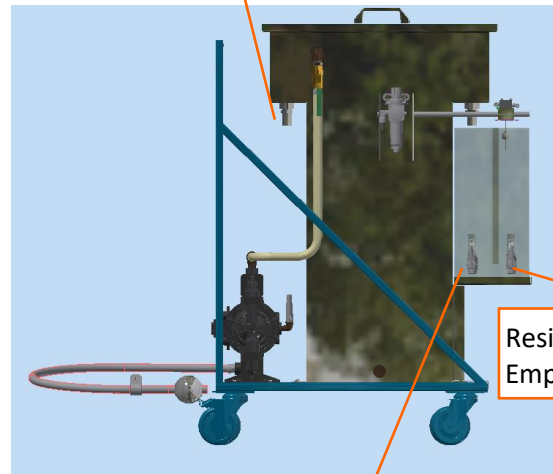
Magnetic Base To Stick MC tank

Floating Suction

Float Switch, Stops System when Tank full.



Clarified coolant out



Residual Emulsion Emptying valve

Oil emptying valve