

# MULTIPACK OIL SEPARATORS



## Free Oil Removal from Water or Soluble Coolants to <math><15\text{mg/l}</math>

For separation of any two immiscible liquids of differing specific gravity at a greatly enhanced rate. Available in Mild Steel or Stainless Steel construction.

### APPLICATIONS

#### ■ Coolant Systems

Tramp Oil may be continuously removed from soluble oil systems with resultant improvements in cutting performance and solution life. Separators are available for all sump sizes, often used upstream of Ultrafiltration or Nanofiltration systems to reduce oil loadings.

#### ■ Industrial Washers

Continuous removal of Tramp Oil from wash solutions will improve the washer performance and extend the solution life.

#### ■ Factory Sumps

Oil can often be recovered from machinery sumps and wash down areas.

#### ■ Effluent Streams

Oil can be removed from contaminated effluents and existing interceptor performances can be improved, allowing local discharge consents to be met.



Model S1/UMT

### ADVANTAGES

- Extends life of coolant/wash liquor
- Reduces bacteria levels
- Prevents odours
- Reduces cutting oil or chemical waste
- Improves cutting or washing performance
- Reduces effluent charges
- Recovers oil
- Waste minimisation
- No consumable parts in the separator
- Compact and easy to install
- Easily adapted to suit specific requirements

### RANGE

Standard systems include feed pump, interconnecting pipework and frame. Seven sizes cover the capacities from 200 l/h to 10m<sup>3</sup>/h.

Model	Capacity
S05	200 l/h
S1	300 l/h
S2	600 l/h
S4	1200 l/h
S8	2400 l/h
S16	4800 l/h
S32	9600 l/h

## PRINCIPLES OF OPERATION

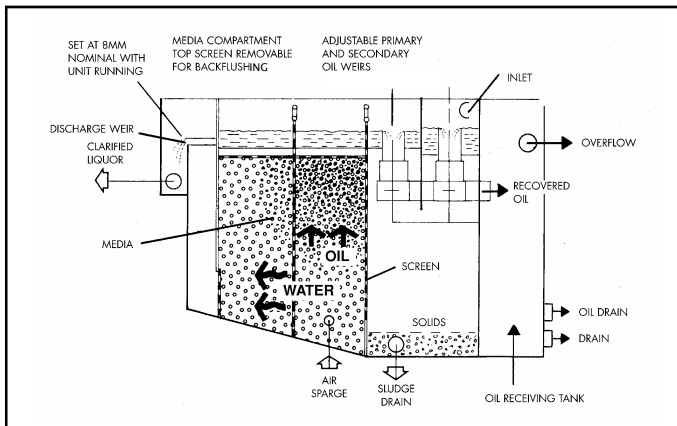
Feed is taken to a primary separation chamber where gross free oil rises to the surface and is discharged into the primary weir. More dispersed oil passes into a second chamber which contains random packed oleophilic media acting as coalescers, increasing the droplets' size and causing them to rise to the surface, where they build up into a layer until discharged from the secondary weir.

Media may be selected for solids handling characteristics and for either primary or secondary dispersions.

For especially high performance, absorbant materials may be used in the final stages allowing effluent qualities of better than 5 mg/l to be achieved.

Integral solids removal equipment can be incorporated as part of the separator, either upstream or downstream.

All units have the facility for the incorporation of automatic air backflushing. This is used for agitating the coalescing media to reduce oil/sludge build-up in the media.



## MODELS

The **Stetmobile** is a 'go-anywhere' wheel-mounted version of the standard coalescing separator range, with an integral oil receiving tank and pump. It is ideal for removing contaminating oil from a wide range of machine tool sumps.

The **Multipack UMP** is mounted on a support frame with feed pump underneath. This allows the unit to gravity discharge clarified liquor back to wash/coolant tank. Supplied complete with pivot, or floating, suction device.

The **Multipack UMT** has an integral pre-feed tank, so avoiding the need for a floating suction. This overcomes problems usually encountered in collecting the liquor from individual washing machines for oil removal and recovery, e.g. lack of space and rapid failure of hoses carrying hot liquid. Other advantages include cleaner solution and constant wash level operation (see photo overleaf).

The **Combined Filter and Separation Units** are built to a standard configuration, the paper band filter normally removing solids prior to oil separation. Performance of the two units is mutually enhanced, since liquid separation is improved with the solids removed and a better filter-cake bed achieved without the presence of free oil. The result is a long and trouble-free operation of both items of plant.

## FEATURES

The crossflow configuration gives the maximum rate of oil separation and minimises the entrainment of solids in the media.

The top screen contains the media below the oil/water interface, allowing the coalesced oil to flow readily to the surface.

Easily removed screens allow simple maintenance. Baskets are available for media exchange where particularly high solids loads exist.

Electric motor on all units is only 0.55kW using either 415v 3Ø or 240v 1Ø supply.

## OPTIONAL FEATURES

### Automatic Backflush

Add where there are a lot of solids present, or where the contaminants are of a very viscous nature.

### Integral Oil Receiving Tank

Use where vacuum waste disposal trolleys are used and are preferred to 45 gallon waste oil drums.

### Undermounted Pre-Feed Tank

Use in situations where there is no space for a suction float in the wash tank (such as dunk washers or automatic plating line washers) or where the system operates at temperatures that create problems with the flexible hose on a floating suction.



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