



MECH TECH ENGINEERING SOLUTIONS



TRAMP OVERVIEW

Tramp oil is probably one of the most common contaminants in metalworking fluids.

The term is a catch all for all sources of non-soluble contaminants (usually oil-based)

that can come in contact with the metalworking fluid as a function of the process or the equipment.

The sources can be one of the following:

- » Hydraulic fluid
- » Way lubricant
- » Slide lubricant
- » Gear lubricant
- » Spindle lubricant
- » Corrosion preventive (from a previous process or carried in on the parts)
- » Stamping lubricant (from a previous process or carried in on the parts)

Whatever the source, tramp oil is a foreign contaminant that can create the problems detailed below.





CAUSES OF TRAMP OIL

Tramp oils can lead to numerous problems that affect work environment safety, production efficiency and the cost control abilities.



- OIL IN COOLANT REDUCES THE COOLANT FLUID ABILITY
- INCREASE IN TEMPERATURE, SHORTEN THE TOOL LIFE
- OIL ESSENTIALLY PREVENTS OXYGEN FROM MIXING WITH THE COOLANT
- THAT BECOME BREEDING GROUNDS FOR ANAEROBIC BACTERIA
- BACTERIA GENERATE HYDROGEN SULFIDE GAS WHICH EMITS AN UNPLEASANT ROTTEN EGG ODOR.

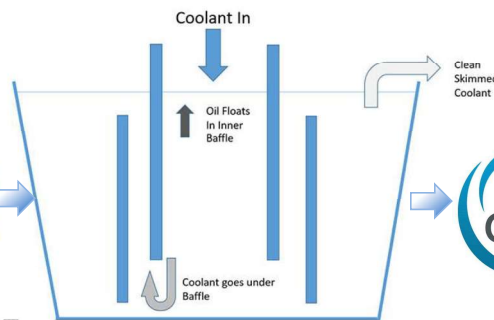
TRAMP OIL COST YOU MONEY

REMOVAL METHOD

WELL DESIGNED FLOAT



HIGH DRAFT SKIMMER



VACUUM SUMP CLEANER





COOLANT PURIFIER FEATURES

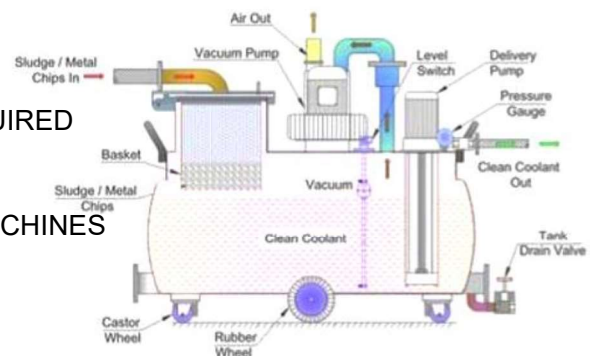
- ⇒ HIGH EFFICIENT THRU FLOAT – COMPARE WITH BELT / DISC SKIMMERS
- ⇒ FASTER CENTRIFUGAL REMOVES 95% OF TRAMP OIL
- ⇒ ACCURATE & FASTER SEPERATION DUE TO HIGH SURFACE AREA
- ⇒ CONSUMABLE FREE – REDUCE OPEARATING COST
- ⇒ PLUG & PLAY OPERATION – NO SPECIAL TRANING IS REQUIRED
- ⇒ MOBILE OPERATION – CAN BE CONNECTED TO NEEDY MACHINES



SUMP CLEANER FEATURES



- ⇒ POWERFUL VACCUM BLOWER – SUCKS METAL CHIPS & COOLANT
- ⇒ FINE STRAINER – RETAIN SLUDGES, METAL CHIPS & SWARF
- ⇒ HIGH EFFICIENCY CENTRIFUGAL PUMP – TO DELIVER THE CLEAN COOLANT
- ⇒ CONSUMABLE FREE – REDUCE OPEARATING COST
- ⇒ PLUG & PLAY OPERATION – NO SPECIAL TRANING IS REQUIRED
- ⇒ MOBILE OPERATION – CAN BE CONNECTED TO NEEDY MACHINES





**DRASTICALLY REDUCE NEW COOLANT
PURCHASE COST TO 75%**



**REDUCE DISPOSAL
WHICH GIVES
CLEAN & GREEN
ENVIRONMENTAL**

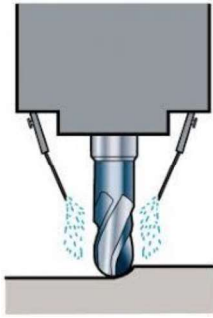


EQUIPMENT RANGES

**MOBILE &
FIXED
MODELS**

&

**FLOWRATE
FROM
10 LPM > ABOVE**



COOLANT

APPLICATION

- ✓ Neat Cutting Oil
- ✓ Water Emulsion Quenching Oil
- ✓ CNC Coolants
- ✓ Component water Washing machines
- ✓ Waste coolant tanks
- ✓ Storage Tanks, etc

Manufactured by **Maxtec Energy Solutions**

MECH TECH ENGINEERING SOLUTIONS

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IMPROVED PRODUCT QUALITY - REDUCED COOLANT EXPENSES



- ❑ No Filter Element
- ❑ Consumable Free Operation
- ❑ No Replacement Cost
- ❑ Improved Product Finish
- ❑ Reduced Coolant Consumption
- ❑ Extended Coolant Change Period
- ❑ Reduced Machine Downtime
- ❑ Reduced Pollution
- ❑ Contributes to Green Environment
- ☒ Reduced Storage and Disposal Cost

**Substantial Savings on Cost of
Filters, Tools, Dies and Coolant
replacement**

**One Time Installation
Lifelong Savings**

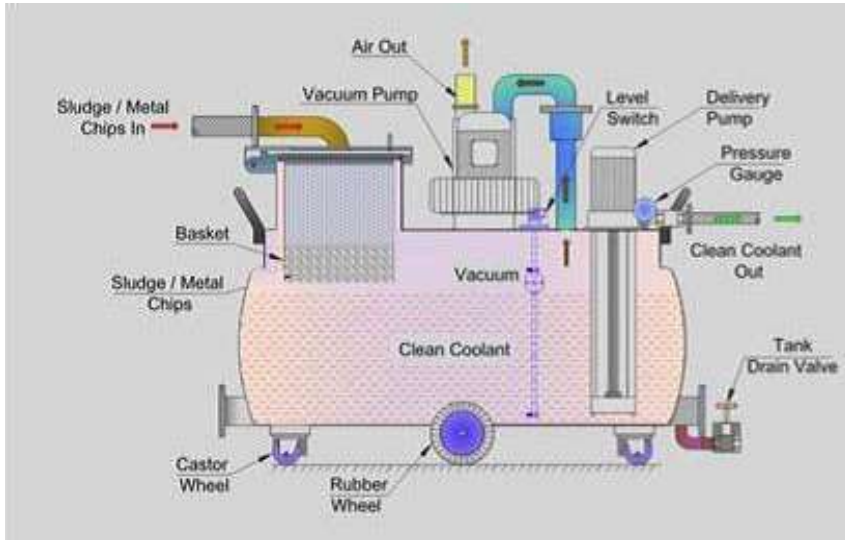
APPLICATIONS

Soluble Cutting Oil
Neat Cutting Oil
Water Emulsion
Quenching Oil
CNC Machines
Storage Tanks, etc.



Sump Cleaner Removes very fine dirt from Coolant by Vacuum created in the tank.
There are no Consumables, Hence no recurring Costs.
Collected dirt can be easily cleaned & the unit can be put back to use again.

Working Principle



Maxtec Clean Coolant/Sump removes sludge, metal chips & swarf from Coolant tanks & filters it via reusable mesh filter.

The System Works on the principle of Vacuum suction. A powerful vacuum blower creates vacuum in the tank of the unit, which sucks in coolant, metal chips Swarf etc, passing it thru mesh basket. Contamination gets collected in the basket & clean coolant flows through to the tank of the unit. A centrifugal delivery pump delivers back the clean coolant.

MODELS:

We have standard as well as custom models available from sump capacity of 50 ltrs onwards.



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Removes floating oil – Floating Dirt – Disinfect the Coolant
Compact High Flow design – Mobile – 100% Top Suction
One time investment – Consumable free



Features

- Float based suction system
- Always collects top layer of the liquid with Oil
- Multiple separation chambers
- Liquid is subjected to high surface area
- Separated oil stored in a sub-tank and overflows automatically to a storage vessel
- Ozone injection removes the microbes in Coolant



Coolant
before purification



Coolant
after purification

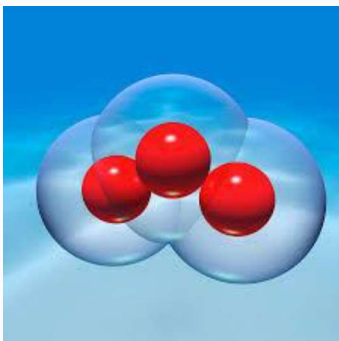
Microbes in Coolant



- Bacteria thrive in water, in the absence of oxygen.
- They consume the oil and secrete acid, giving rise to bad odour, skin irritation, corrosion and releases salts into the fluid.
- Floating oil prevents entry of oxygen helping bacteria to multiply every 20 minutes.
- Ultimately the emulsion breaks, Coolant loses its value

MAXClean – OZONE Generator

- Industrial Ozone Injection in controlled quantity
- Adjustable Ozone injection
- Kills bacteria, viruses, yeast, fungus and molds
- Consumable free, unlike Biocides which are harmful to the environment & machine and also expensive
- Eliminates bad odors and Monday morning stench
- Drastically decreases employee health issues like, dermatitis and respiratory problems



MAXClean CPS – Advantages

- Highly efficient in removing the oil up to 99%
- Much faster suction thru Floats, than the very slow operation of the Belt/Disc skimmers
- Oil never escapes from the Skimmer chambers, unlike Belt/Disks.
- Due to high surface area, separation is faster and accurate
- Consumable free, unlike Belts, Discs, Brushes etc.
- Mobile operation, can be connected to needy machines
- Collected oil can be reused after Filtration
- No bad odor, clogged coolant lines & slime in sumps and trouble free pumps

Savings

- Enhances Coolant life, less disposal, less new purchase
- Reduces disposal cost
- Clean and Green environment
- Higher filter and pump life
- Clean and Microbes free coolant – Good to employees

Applications

- CNC Coolants
- Component water Washing machines
- Waste coolant tanks

Models: Mobile & Fixed **Flowrate:** 600 LPH and above **Custom** design to suit your needs



Offline Model with Tank & PH display meter

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