

*...Only from Eriez*



**Tramp Oil Removal Equipment:**

- Oil Skimmer
- Oil Skimmer Jr .
- Coalescer – Tank-Side
- Coalescer – Portable
- Coalescer – Portable Jr.
- Centrifuge – Portable

**ERIEZ®**

# Tramp Oil Removal Equipment

**HYDROFLOW®**  
FILTRATION SYSTEMS

Equipment designed for removing oil from water based fluids

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# Tramp Oil Removal

Eriez HydroFlow offers a complete line of equipment to remove tramp oils from your metalworking fluids.

Removing Tramp Oils, any oil that leaks from a machine tool into the metalworking fluid, should be a high priority for all metalworking plants. Tramp oils cause a variety of problems with the metalworking fluids such as:

- Increased smoke and mist in the air
- Increased bacteria populations
- Decreased tool life
- Decreased coolant life
- Decreased parts washer bath life
- Skin irritations such as Dermatitis

Removing tramp oils from your fluids will improve all aspects of your metalworking fluids. Eriez HydroFlow has a complete line of equipment to remove tramp oils from your metalworking fluids.

Eriez offers a variety of equipment to remove damaging tramp oils from machine tool fluids and aqueous cleaners. The flowing chart helps identify process and capacity options.

	Oil Skimmer (3")	Skimmer Jr. (1")	Tank-Side Coalescer	Portable Coalescer	Portable Coalescer Jr.	Portable Tramp Oil Centrifuge
<b>Oils That Float</b>						
<b>Machine center</b>						
• has down time	x	x				
• sump has a quiet area	x	x				
• does not shut down			x	x	x	
• Small sumps (less than 50 gallons)		x	x		x	
• Large sumps (over 50 gallons)	x			x		
Central filtration systems	x			x		
Parts washer	x*	x*		x		
<b>Oils That Do Not Float (Emulsified)</b>						
Machine sumps any size						x
Central filtration systems						x
Parts washer						x

\*Special belt material may be required

## Surface Oil Belt Skimmers..... 3

Eriez' Surface Oil Belt Skimmers feature an oleophilic (oil attracting) belt that hangs into the sump where it removes free-floating tramp oils. Two models and four belt options provide differing rates and levels of oil separation.

## Coalescers..... 4

Eriez offers three low cost coalescers that process machine tool fluids removing tramp oils and fines and returning clean, reusable coolant. These units pump dirty fluid into a tank where it contacts media plate packs separating the tramp oils from the fluid quickly and easily. The oil-free fluid is discharged back to the sump. Media packs are easily removed for cleaning and never need to be replaced.

## High Speed Centrifuges ..... 7

This portable tramp oil separator's high speed, manually cleaned, disc bowl centrifuge removes both free and emulsified tramp oil to 0.5% or less and particulate matter to 5 microns nominal in one pass on any stable coolant or cleaner. Eriez' Portable Centrifuge extracts fluid from small individual machine sumps or larger central systems at process flow rates of 1-4 GPM (4-16 liters per minute).



# Surface Oil Belt Skimmers

## Oil Skimmer

The Oil Skimmer is designed for use on large machine tools with tanks deeper than two feet experiencing oil contamination in the range of one to two gallons of oil per hour.

### Key Features:

- 3" belt
- Simple installation
- No scraping, oil is squeezed between rollers
- Open, accessible oil collecting tray and drain connector
- Variety of oleophilic belt materials for different applications
- Continuous speed, fan-cooled drive motor with a hardened shaft and needle bearings
- Capacity to remove 1 to 1.5 gallons of oil contaminants per hour



### Dimensions:

11-3/4" L x 6-1/4" W x 11"H

### Belt sizes:

- 70" (total length)  
2' hang from bottom on unit
- 94" (total length)  
3' hang from bottom on unit
- 118" (total length)  
4' hang from bottom on unit
- 166" (total length)  
6' hang from bottom on unit
- Special length belts available, up to 20' hang

## Oil Skimmer, Jr.

The Oil Skimmer Jr. is designed for machine tools with fairly shallow tanks experiencing oil contamination in the range of one to two quarts of oil per hour.

### Key Features:

- 1" belt
- Surface or side mounted option
- Simple oil scraper/wiper design
- Wiper guard extends belt life
- Nothing to wear out
- Capacity to remove 1 to 1.5 quarts of oil contaminants per hour



### Dimensions:

7" L x 6" W x 10"H

### Belt sizes:

- 24" (total length) 2-5" hang from bottom on unit
- 32" (total length) 6-9" hang from bottom on unit
- 44" (total length) 12-15" hang from bottom on unit

## Belt Material Options

### White Belt

**Material:** White shiny/gray cloth-like

**Application:** Most coolants and cleaners

*Belt performs well picking up oils without picking up much coolant. Reversing the belt using the gray cloth-like textured side may improve oil pick up, but will likely pick up more coolant as well.*

**THIS BELT IS OUR #1 CHOICE**

### Green & White Belt

**Material:** Green shiny/gray-white fabric

**Application:** Coolants and cleaners

*Green side offers additional texture aiding oil pick up. This belt can also be turned inside out for greater oil pickup.*

### Plastic Belt

**Material:** Clear

**Application:** Coolant free oils

*Very smooth belt is ideal for applications where a high degree of oil/coolant separation is required.*

**NOT FOR USE WITH ULTRASONIC WASHERS**

### Cloth Belt

**Material:** White fabric

**Application:** Blaser and some semi-synthetics coolants

*A cloth belt having more texture will pick up most oils, however it will also pick up more coolant than the other belts.*

**NOT FOR USE WITH CLEANERS**

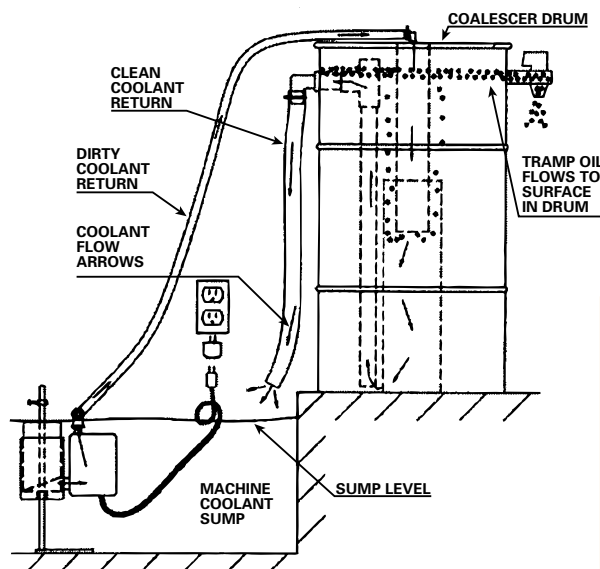


# Tank-Side Coalescer

This unit consists of a 110-volt electric submersible pump coupled to an adjustable skimming device which, when installed properly, rests in the sump and collects oil from the surface. The pump delivers skimmed tramp oil and coolant to the coalescer settling tank. The settling tank consists of a 15-gallon polyethylene drum, an inner oil diversion baffle, an oil discharge spigot, and a clean coolant discharge hose. Clean coolant gravity flows from the settling tank through the discharge hose and back to the sump.

## Key Features:

- Small coalescer for individual machine tool sumps and part washers
- 1 to 1-1/2 GPM oil removal rate
- Extends coolant life, improves tool life
- Skimmer can be easily modified to work in machine sumps with as little as 3" of coolant
- Includes a 9' suction hose and a 5' clean discharge hose



## Optional:

- Oil Skimmer Jr. mounted on top of Sump Side Coalescer for automatic oil removal
- Larger electric pump for installations that are mounted high or far away from the machine tool
- Self priming double diaphragm air pump with a floating skimmer to use when coolant levels in the machine sump are deeper than 10" or the level fluctuates greatly





# Portable Coalescer

This unit is designed for any size plant but especially for ones with multiple machine tools, having large central filtration systems, or aqueous parts washers. It offers simple, effective, low cost tramp oil removal.

The Eriez Portable Coalescer consists of a self priming dirty feed pump coupled to a floating skimming device that is placed in the sump. The dirty fluid is pumped into the coalescer tank where it comes in contact with two coalescing media plate packs that cause the tramp oils to separate from the fluid quickly and easily.

The oil free fluid is discharged back to the sump while the separated tramp oils are discharged out a separate port to a waste container.

## Key Features:

- Two easily removable oleophilic polypropylene coalescing plate packs (132 ft<sup>2</sup> each) for maximum oil removal and cleaning
- Tank drain valve for easy cleaning
- Floating oil collector to collect oils and dirty fluids from machine sump
- Self priming electric or double diaphragm air pump used as "dirty" feed pump
- Lid with gasket for leak free transportation
- Oil removal weir with adjustable, automatic oil discharge port



## Dimensions:

35" L x 19" W x 46" H  
Weight empty: 300 lbs

## Specifications:

Process Rate: 1–3 GPM (4–12 LPM)  
(Higher flow rate units are available)

## Utility Requirements:

Electrical: 115 volts, single phase 60 Hz  
Air: 60–80 PSI, 3 CFM

## Optional:

- Optional 300 stainless steel tanks for high or low pH fluids
- Optional larger tank sizes and flow rates
- Optional 110 volt 50 Hz and 220 volt 50 Hz single phase operation
- Parts washing operation



# Portable Coalescer Jr.

The Portable Coalescer Jr. is a high performance coalescer in a small package, perfect for modern CNC machine tool sumps. The unit comes with an air feed pump, a high efficiency coalescing plate pack, and a newly designed floating skimmer that is compact enough to fit in small spaces and shallow sumps.

## Key Features:

- Self-priming double diaphragm air pump to feed dirty coolant from the machine sump to the coalescer
- Basket strainer in front of pump to remove small fines
- Black Bubble floating oil skimmer (3" diameter) to be used in the machine tool sump to transport dirty fluid to the coalescer—will work in sumps as shallow as 1-1/2" deep
- High efficiency coalescing plate pack with 132 ft<sup>2</sup> of area that is easily removed for cleaning
- Oil removal weir with automatic oil discharge port
- Dirty feed hose, clean coolant return hose, magnetic hose holders
- Four swivel 1-1/2" x 3" casters, hinged 3' pull handle with latch



### Dimensions:

18" L x 12-1/2" W x 27" H  
Weight empty: 140 lbs

### Specifications:

Process Rate: 1 GPM

### Utility Requirements:

Air: 1/4" NPT, 30 PSI min. 100 PSI max.



# Portable Tramp Oil Centrifuge

The Eriez Portable Tramp Oil Separator, including a high speed, manually cleaned, disc bowl centrifuge, removes both free and emulsified tramp oils to 0.5% or less and particulate matter to 5 microns nominal in one pass on any stable coolant or cleaner.

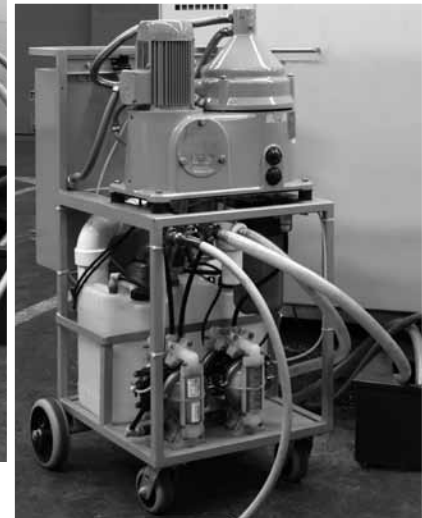
This compact and portable unit, completely assembled on wheels, is designed to extract fluid from both small, individual machine sumps as well as larger central systems. The unit can process flow rates of 1–4 gpm (4–16 lpm) depending on fluid type and condition.

## Key Features:

- High speed centrifuge
- 1–1/2 HP belt drive motor
- Stainless steel bowl
- Built in clean coolant discharge pump
- 20 mesh basket strainer
- Double diaphragm air pump as a dirty fluid feed pump with air filter/pressure regulator
- 50-micron cleanable filter prior to the centrifuge, extra cartridge and spanner wrench included
- 5 gallon (20 liter) tramp oil container with fluid level detector
- Clean fluid discharge hose
- Control panel (NEMA 12 enclosure) with motor starter for centrifuge, and on/off buttons

## Optional:

- Large cartridge filter system for high solid applications like cast and grey iron and aluminum
- 120 volt single phase operation



## Dimensions:

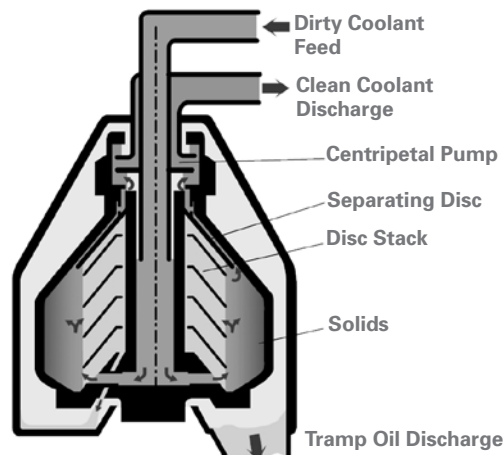
40–5/8" L x 24–7/8" W x 51–1/2" H  
Weight empty: 300 lbs

## Utility Requirements:

Electrical: 220/440, 3 phase 60 Hz,  
20 Amp grounded outlet  
Air: 60 psi min. 100 psi max.

## Service Startup Required

To validate the equipment warranty, an Eriez service technician must perform initial start up. Start up and training are included in sale price.



# Eriez Fluid Filtration, Recycling & Tramp Oil Removal

Fluid filtering, recycling, and tramp oil removal applications include parts washing, machining, grinding, honing, super finishing and EDM where fluids from water-based coolants to straight oil lubricants are required. These processes typically produce parts made of steel, aluminum, cast iron, aircraft alloy, carbide, ceramics or glass.

## Fluid Filtration

Eriez' HydroFlow systems offer plant-wide filtration solutions to 1 micron at 6,000 GPM. Systems accommodate all types of fluids and flow rates.

Filtration systems include:

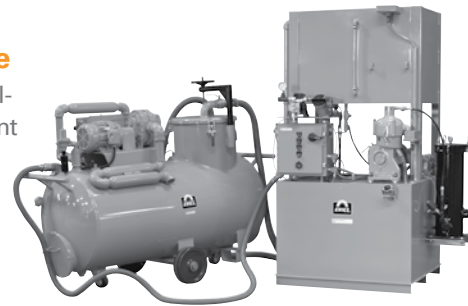
*Hydroflow Vacuum Filters*  
*STAR Vacuum Filters*  
*Centrifuge Filter Systems*  
*Cartridge Filters*  
*Gravity Filter Systems*  
*Hydrocyclone Separators*  
*Magnetic Separators and Conveyors*



## Fluid Recycling & Maintenance

Eriez' offers a complete line of metal-working fluid management equipment to fit any plants needs includes:

*Sump cleaners*  
*CRS coolant recycling systems*  
*Coolant mixers/proportioners*  
*Refractometers*



## Tramp Oil Removal

Eriez' offers a complete line of tramp oil removal equipment to fit any plants needs including:

*Oil Skimmers*  
*Coalescers*  
*High Speed Centrifuges*



For complete details call: 800-991-4225



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