# Metalworking Fluid Recycling

& Management Equipment





## ERIEZ FLUID MANAGEMENT EQUIPMENT

Eriez provides comprehensive fluid management technology serving the metalworking industry. Our equipment maximizes coolant effectiveness and longevity, enabling companies to improve productivity and reduce disposal costs.

Our equipment is supported by more than one hundred years of engineering expertise, as well as a fully trained and experienced service department.

Fluid recycling applications include parts washing, machining, grinding, honing, super finishing and EDM, where fluids from water-based coolants to straight oil lubricants are required.



Precision grinding uses high pressure cutting fluids



High speed machining requires clean coolant



EDM demands effective filtration



"The Eriez Sump Cleaner literally paid for itself in the first use."

"With the Eriez Sump Cleaner, it now takes two hours to do the complete job, where it used to take 8 to 11 hours per machine. We re-use the filtered oil at least one time over, which saves us 50 percent on oil consumption. We save almost \$70,000 per year in cutting oil alone. Add in labor savings and reduction in downtime and the total payback is over \$150,000 per year."





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SumpDoc Portable Fluid Recycling 18-19



## Fluid Concentrati

MIXERS & CONTROL

## Automatic Proportioner Pumps Eriez mechanical mixers ensure consistent concentration under all types of conditions.

Maintaining tight fluid concentration control ensures that fluid never becomes too lean or too rich.

A "lean concentrate" leads to rust, bacterial infection, and poor tool life, while a "too rich" concentrate often causes eye, nose and skin irritation for the operator and is a waste

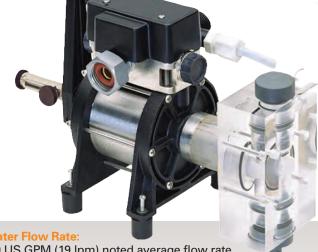
of product.

#### COOLANT PROPORTIONER

Eriez' Proportioner is a water-driven, positive displacement proportioner which dispenses coolant on demand at the desired concentration. Ideal when greater accuracy and automatic mixing is required. Special units are also available for highly alkaline parts washing fluids. Supply fluid overhead to machine tools without booster pump.

#### FEATURES:

- · Reduces concentrate waste
- · Easy to install
- · Reliable and consistent
- · Non-electrical
- Adiustable



**Water Flow Rate:** 

5.0 US GPM (19 lpm) noted average flow rate

#### **Mixture Range:**

8 oz. (237 ml) 1% to 4% 16 oz. (473 ml) 1% to 8% 32 oz. (946 ml) 2% to 15% 47 oz. (1390 ml) - 4% to 19%

Units for mixing aqueous cleaning fluids with a pH of up to 13

### Coolant Mixers

#### DRUM TOP MIXER

The Eriez Drum Top Mixer is a venturi style mixer for combining water with coolant concentrates. Water, jetting through the unit, creates a vacuum that siphons concentrate from the drum. A needle valve allows for infinite adjustments across the mixture range.

#### **FEATURES:**

- · All metal construction for maximum durability
- 2" (51 mm) NPT sliding-bung drum adapter
- · Discharge hose assembly
- · Inlet shut-off valve with garden hose thread adapter
- · Lockable adjusting dial



versions available

**Mixture Range:** 

2% to 20%



#### **DUAL RATIO MIXER**

The Dual Ratio venturi style mixer has dual capabilities. Two separate fluids can be processed, or a single fluid can be mixed at two different ratios. From a single concentration pail, drum or tote, both fresh charge and leaner make up concentrations can be dispensed, minimizing opportunities for operation error. Once set up, the operator just pushes the button for the desired concentration to fill containers with mixed fluid.

#### **FEATURES:**

- · Pressure regulation eliminates concentration variances
- E-gap backflow protection (ASSE 1055B approved)
- · Concentrate suction and discharge hoses

## Refractometers

#### MANUAL & DIGITAL REFRACTOMETERS

The Eriez Automatic Temperature Compensating Refractometer helps you quickly determine the concentration or ratio of a variety of industrial fluids. This simple, yet rugged device is portable, and requires no batteries. Its large, easy to read scale is available in two ranges 0 to 10° Brix, and 0 to 32° Brix.



#### **Water Flow Rate:**

1 to 3.5 GPM (4 to 13 LPM)

#### **Mixture Range:**

1:1 to 110:1 50% to .9%

#### **Utility Requirement:**

Water: 25 PSI minimum



Extremely accurate digital Refractometer with an easy-to-read LCD readout and a 0-56 Brix range.

## Tramp Oil Remove

**IMMERS & COALESCERS** 

### Oil Skimmers

Eriez oil skimmers are easy to install and use an "oil loving belt" to remove tramp oils. Models can be equipped with a timer so the unit runs only when the machine is idle and tramp oils have risen to the surface.

#### SURFACE OIL SKIMMER

The Surface Oil Skimmer squeezes oil between rollers. a method of stripping the oil from the belt that does not require scraping. This skimmer is designed for use on large machine tools with tanks deeper than two feet.

#### **FEATURES:**

- 3" (76 mm) belt width
- Simple installation
- · Open, accessible oil collecting tray and drain connector
- · Variety of oleophilic belt materials for different applications
- Capacity to remove 1 to 1.5 gallons (4 to 6 L) of oil contaminants per hour

#### OIL SKIMMER JR.

The Oil Skimmer Jr. is designed for machine tools with fairly shallow tanks.

#### **FEATURES:**

- 1" (25 mm) belt width
- · Surface or side mounted option
- · Simple oil scraper/wiper design
- · Wiper guard extends belt life
- · Capacity to remove 1 to 1.5 quarts (0.9 to 1.4 L) of oil contaminants per hour
- 120V, 50/60 Hz operation



2" L x 6-1/4" W x 12" H (51 mm x 159 mm x 305 mm)

#### **Utility Requirements:**

Electrical: 120V, 50/60 Hz

#### Belt, sold separately: (white)

• 70" x 3" (2' hang from bottom of unit) (1778 x 76 mm) (610 mm)

83-1000

- 93" x 3" (3' hang from bottom of unit) (2362 x 76 mm) (914 mm)
- 118" x 3" (4' hang from bottom of unit) (2997 x 76 mm) (1219 mm)
- 166" x 3" (6' hang from bottom of unit) (4216 x 76 mm) (1829 mm)



#### **Dimensions:**

6" L x 7" W x 10" H (153 x 178 x 254 mm)

#### **Utility Requirements:**

Electrical: 120V, 50/60 Hz

#### **Belt Sizes: (white)**

- 24" x 1" (2-4" hang from bottom of unit) (610 x 25 mm) (51-102 mm)
- 32" x 1" (7-8" hang from bottom of unit) (813 x 25 mm) ( 178-203 mm)
- 44" x 1" (13-14" hang from bottom of unit) (1118 x 25 mm) (330-356 mm)





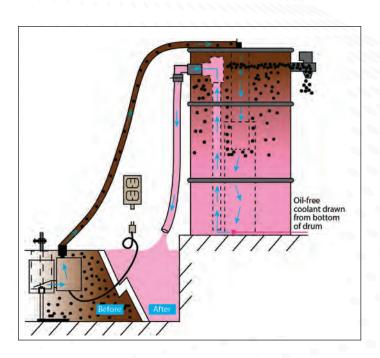
### Coalescers

#### TANK SIDE COALESCER

This unit consists of a 120 volt electric submersible pump coupled to an adjustable skimming device which rests in the sump and collects oil from the surface. The pump delivers skimmed tramp oil and coolant to the coalescer settling tank that has an inner oil diversion baffle and an oil discharge spigot. Clean coolant gravity-flows from the settling tank through a discharge hose back to the sump.

#### **FEATURES:**

- · Ideal for individual machine tool sumps and part washers
- 1 to 1.5 GPM (4 to 6 LPM) process rate
- Extends coolant life, improves tool life
- · Skimmer can be easily modified to work in machine sumps with as little as 3" (76 mm) of coolant
- Includes a 9' (2743 mm) suction hose and a 5' (1524 mm) clean discharge hose





#### **Drum Size::**

15 Gallon (57 L)

#### **Specifications:**

Flow rate: Up to 1.5 GPM (6 LPM)

#### **Utility Requirements:**

Electrical: 120V, Submersible Pump with Skimmer

- · Larger electric pump for installations that are mounted high or far away from the machining tool
- · Self-priming double diaphragm air pump with a floating skimmer to use when coolant levels in the machine sump are deeper than 10" (254 mm) or the level fluctuates greatly
- · Oil Skimmer Jr. mounted on top of Tank Side Coalescer for automatic oil removal

# Tramp Oil Removal

COALESCERS & SEPARATORS

#### PORTABLE COALESCER

A mobile tramp oil separator to serve multiple sumps. This portable coalescer efficiently removes free tramp oils and fines while the machine tool is running. Heavy-duty self-priming electric pump requires no flow rate adjustment.

#### **FEATURES:**

- Cast iron self-priming electric pump to transfer dirty coolant from the sump to the coalescer (will prime to 10' (3048 mm), 1/3 HP motor
- Floating triangular oil skimmer in the machine tool sump to transport dirty fluid to the coalescer, separate suction strainer with hose to be used where the standard triangle skimmer cannot fit in the sump or where there are floating chips
- Two high efficiency oleophilic coalescing plate packs with 132 square feet (12.2 m²) of area each that are easily removed for cleaning
- · Adjustable automatic oil removal weir and drain valve
- Clean coolant return hose, tramp oil hose, magnetic hose holders
- Casters, two each 4" x 2" (102 x 51 mm) swivel and rigid Optional cartridge or bag filters installed on unit, high temperature units for parts washers.



40" (1016 mm) L  $\times$  19" (483 mm) W  $\times$  46" (1168 mm) H Weight Empty: 300 pounds (136.1 kg)

#### **Specifications:**

Flow Rate: 1-3 GPM (4-11 LPM) (Higher flow rate units are available)

#### **Utility Requirements:**

Electrical: 120V, 60 Hz, Single Phase 60 Hz



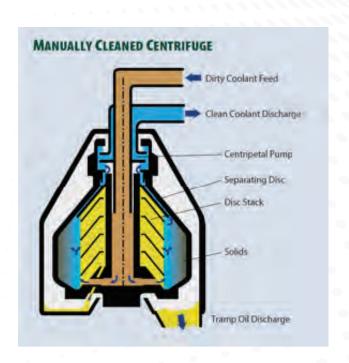


#### PORTABLE TRAMP OIL SEPARATOR

Our portable tramp oil separator, including a 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.

#### **FEATURES:**

- · Compact unit designed to extract fluid from small individual machine sumps or larger central systems
- The centrifuge features aluminum alloy hood, cast iron frame, stainless steel bowl assembly, 1.5 HP belt drive motor, tools and accessories
- Floating skimming device placed in the sump plumbed to a double diaphragm air pump as a dirty fluid feed pump, while a built in pressurized discharge pump returns the centrifuged fluid
- Includes a suction screen assembly with hose and quick disconnect fitting to be used when the floating skimmer will not fit in the machine sump, a 50-micron cleanable filter prior to the centrifuge, a 5-gallon (19 litre) tramp oil container with a sensor to shut off the centrifuge when it is full
- Control panel (NEMA 12 enclosure) with on/off button





#### **Dimensions:**

31-1/2" long x 27-7/8" wide x 51-1/2" high (800 x 708 x 1308 mm)

#### **Specifications:**

Flow Rate: 1-4 GPM (4-15 LPM)

#### **Utility Requirements:**

Electrical: 220 or 440 volt (must specify), 3 phase,

60 Hz, 20 AMP drop

Air: 100 PSI max, 60 PSI min.

Controls to allow Tramp Oil Separator to operate on 120 volt single phase electric power.

Large Centrifuge Prefilter, which will prefilter dirty coolant to extend the periods between cleaning the centrifuge bowl. Especially recommended for cast iron and aluminum applications.

## Solids Removal

SUMP CLEANERS

### Sump Cleaners

Eriez manufactures the widest selection of sump cleaners in the industry. Solutions range from inexpensive drum top cleaners to the industry's widely recognized sump cleaner. Manufactured since 1974, these heavy-duty industrial wet/dry vacuum filtration units clean virtually any machine tool sump, tank, or pit quickly and thoroughly.

Eriez sump cleaners remove the coolant, sludge and chips from the sump, filter the sludge and chips from the coolant and return the filtered coolant to the sump.

In a typical example, a cylindrical grinder sump with 120 U.S. gallons (454 liters) of coolant and 700 pounds (318 kilograms) of sludge was completely cleaned, the coolant filtered and returned to the sump in ten minutes.

#### FEATURES:

- · Single or twin compartment configuration
- Push around, tow around, or truck mounted units available
- · Complete with hoses and cleaning tools



#### **Specifications:**

Capacities from 65 U.S. gallons (246 liters) to 1,000 U.S. gallons (3785 liters)

 $3.5\ ft^3$  (.099  $m^3)$  or  $5.3\ ft^3$  (.15  $m^3)$  holding capacity sludge basket

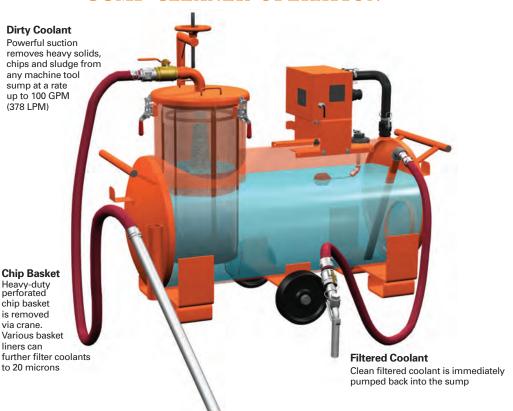
#### **Utility Requirements:**

Air, 120V single phase, 3-phase electric, or LP gas power sources

#### SUMP CLEANER OPERATION



Chip basket captures chips and sludge from dirty coolant during cleaning.





#### TRUCK SUMP CLEANERS

Eriez can supply any of our Sump Cleaners for appropriately rated industrial trucks or pallet trucks.

#### **FEATURES:**

- Can be assembled on a LP or electric industrial truck for added mobility within a plant
- Single compartment up to 400 U.S. gallons (1514 liters)
- Twin compartment up to 200/200 U.S. gallons (757/757 liters)



#### LP GAS SUMP CLEANERS

The LP Gas (Liquified Petroleum Gas) unit couples a 25 HP electric start with LP gas engine generating 12-15" HG (305-381 mm) vacuum power with suction rates up to 100 GPM (378 LPM) while being able to pick up chips, sludge, grinding swarf, etc. Discharge pressure of 5-7 PSI for discharge rates up to 40 GPM (151 LPM).

#### FEATURES:

- 3.5 cubic foot (0.09 m³)chip basket in 100 gallon units (378 L), 5.3 cubic feet (0.15 m³) for 175 gallon (662 L) and larger units, both with 800 pound (363 KG) capacity and hinged trap door bottom
- · Two reusable polyfiber sleeves for chip basket
- One 3' x 2" (914 x 51 mm) cleaning tool
- 20' long 2" diameter (6096 mm x 51 mm) suction and 1-1/2" diameter (38 mm) discharge hoses
- · Heavy duty tank with 14" (356 mm) easy on/off manhole cleanout on end of tank. Easy lift chip basket lid.
- Push-around configuration, including center mounted 12" x 3" (305 x 76 mm) wheels and 4" x 2" (102 x 51 mm) casters mounted on each end, plus forklift brackets





#### **Specifications:**

Single Tank Capacities: 100 to 1,000 gallons

Twin Tank Capacities: 50/50 to 500/500 gallons

(189/189 to 1892/1892 L)

#### **Utility Requirements:**

LP Gas Cylinder Power Source Electric switch to shut engine off

## Solids Removal

SUMP CLEANERS

#### **ELECTRIC SUMP CLEANERS**

#### 120 volt single phase unit

These sump cleaners utilize a 120-volt 3 stage motor assembly that generates 10" (254 mm) HG vacuum with suction rates up to 85 GPM (322 LPM) while being able to pick up chips. sludge, grinding swarf and other solids. A discharge pressure of 5 PSI for discharge rates up to 40 GPM (151 LPM).

#### 3 Phase (208, 240, 480, 575 volt) units

Utilize cast iron 3 MP positive displacement blower coupled to a 5 HP motor that generates 12-15" (305-381 mm) HG vacuum power with suction rates up to 100 GPM (378 LPM) while being able to pick up chips sludge, grinding swarf and other solids. A discharge pressure of 5-7 PSI for discharge rates up to 40 GPM (151 LPM).

#### **FEATURES:**

- · Electric float switch to shut off motor when unit is full
- Blower sound-reduction mufflers
- 3.5 cubic foot (0.09 m<sup>3</sup>) chip basket in 65 and 100 gallon (246 and 378 L) units, 5.3 cubic feet (0.15 m<sup>3</sup>) for 175 gallon (662 L) and larger units, both with 800 pound (363 KG) capacity with hinged trap door bottom
- Two reusable polyfiber sleeves for chip basket
- One 3' x 2" (914 x 51 mm) cleaning rod
- 20' long (6096 mm) 2" diameter (51 mm) suction and 1-1/2" diameter (38 mm) discharge hoses
- Heavy duty tank with 14" (356 mm) easy on/off manhole cleanout on the end of tank, easy lift chip basket lid
- Push-around configuration which includes center mounted 12" x 3" (305 x 76 mm) wheels and 4" x 2" (102 x 51 mm) casters mounted on each end, plus forklift brackets

#### AIR VENTURI SUMP CLEANERS

An Air Venturi vacuum generator creates vacuum levels up to 13" (330 mm) HG for suction rates up to 110 GPM (416 LPM) while being able to pick up chips, sludge, grinding swarf and other solids. A preset air pressure regulator for discharge is set for 5-7 PSI, with tank depressurization valve for discharge rates up to 40 GPM (154 LPM).

#### **FEATURES:**

- 7 PSI safety air pressure pop off valve
- 3.5 cubic foot (0.09 m<sup>3</sup>) chip basket in 65 and 100 gallon (246 and 378 L) units, 5.3 cubic feet (0.15 m<sup>3</sup>) for 175 gallon (662 L) and larger units, both with 800 pound (363 kg) capacity with hinged trap door bottom
- One 3' x 2" (914 x 51 mm) cleaning tool
- 20' L (6096 mm) x 2" diameter (51 mm) suction & 1-1/2" diameter (38 mm) discharge hoses
- Heavy duty tank with 14" (356 mm) easy on/off manhole cleanout on end of tank, plus easy lift chip basket lid
- Push-around configuration includes center mounted 12" x 3" (305 x 76 mm) wheels and two 4" x 2" (102 x 51 mm) casters mounted on each end, plus fork lift brackets



Single Tank Capacities: 50 to 1,000 gallons (189 to 3780 L) Twin Tank Capacities: 50/50 to 500/500 gallons (189/189 to 1892/1892 L)

#### **Utility Requirements:**

Single Phase Units: 120V

3 Phase Units: 206, 240, 480, 570 Volts



Single Tank Capacities: 50 to 1,000 gallons

(189 to 3780 L)

Twin Tank Capacities: 50/50 to 500/500 gallons (189/189 to 1892/1892 L)

#### **Utility Requirements:**

Compressed Air: 60-90 PSI, 32-47 CFM

Air Hose Requirements: 1/2" (13 mm) ID unrestricted (required)



#### 50 GALLON (189 L) SUMP CLEANER

120 volt 3 stage motor assembly that generates 10" (254 mm) HG vacuum with suction rates up to 85 GPM (322 LPM) while being able to pick up chips, sludge, grinding swarf and other solids. A discharge pressure of 5 PSI for discharge rates up to 40 GPM (151 LPM).

#### **FEATURES:**

- · Electric switch to shut off motor when unit is full
- 10' long x 2" (3048 mm x 51 mm) ID suction and 1-1/2" (38 mm) discharge hoses
- 1.6 cubic foot (.045 m³) rectangular chip basket with polyfiber sleeve
- One 3' x 2" (914 x 51 mm) cleaning tool
- Push around configuration with two 4" x 2" (102 x 51 mm) swivel and two rigid casters
- Dimensions: 44" (1118 mm) long x 23.5" (597 mm) wide x 51" (1295 mm) high
- · Weight: Approximately 350 pounds (159 kg)
- Electrical: 120 volt, single phase, 60 Hz, 20 amp outlet (running amp draw is 14 amps)



The Drum Top Sump Cleaner is an inexpensive device capable of vacuuming chips and solids from machine tools and work areas as well as emptying coolant sumps of liquids and solids. The unit is designed for use on an open top 55 gallon (208 L) drum.

#### **FEATURES:**

- · Heavy duty drum cover plate
- · Air venturi vacuum generator that mounts to cover plate
- · Manual float switch to be used if unit will be used to vacuum liquids
- Fluid/solids deflector that mounts to underside of bottom plate
- 10' (3048 mm) suction hose
- · Hose to cover adapter
- 36" (914 mm) cleaning tool





#### **Specifications:**

 $10^{\circ}$  (3048 mm) Orange, oil-resistant suction hose. 36" (914 mm) cleaning tool.

#### **Utility Requirements:**

Compressed Air: 60-90 PSI, 32-47 CFM

Air Hose Requirements: 1/2" (13 mm) ID unrestricted (required)

## Solids Removal

CENTRIFUGES • COOLANT CLEANERS • CONVEYORS

Solids-from-Liquid Centrifuges

Solids collect in individual machine tool sumps and in large central systems. It is important to remove these chips and fines as they have a detrimental effect on coolant performance and longevity as well as causing lost production and issues during removal.

#### ERIEZ CENTRIFUGE FILTERS

Eriez centrifuges feature an open-topped rotor bowl design fitted with a long-life, removable, flexible liner. They are available in standard or high performance single and double bowl models with a variety of tank sizes and pump pressures. These systems provide affordable filtration for low flow rates and are often combined with high capacity cartridge filters to polish the fluid to an even greater level.

Applications include carbide, glass, ceramics, tool and cutter, and CBN grinding as well as honing, vibratory and micro-finishing, and wire drawing.

#### **FEATURES:**

- · Inexpensive with low operating costs
- · Quick and easy sludge disposal
- · Reusable sludge collection liner
- · Compact size with low inlet height

#### STANDARD CENTRIFUGE SYSTEMS:

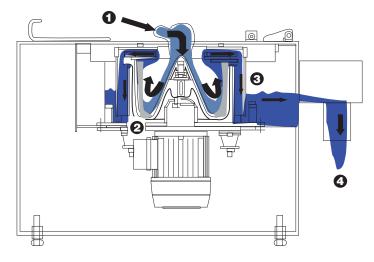
| Model     | Centrifuge Type | Tank<br>Capacity<br>(gallons) | Water Based<br>Coolant Flow<br>Rate (GPM) | 100 SUS<br>Oil Flow<br>Rate | Normal<br>Clarity<br>(microns) |
|-----------|-----------------|-------------------------------|---|-----------------------------|--------------------------------|
| HP-20     | Single Bowl     | na                            | 20 (76 LPM)                               | 15                          | 10                             |
| HP-40     | Double Bowl     | na                            | 40 (151 LPM)                              | 30                          | 10                             |
| HP-20-60  | Single Bowl     | 60 (227L)                     | 20 (76 LPM)                               | 15                          | 10                             |
| HP-20-120 | Single Bowl     | 120 (454L)                    | 20 (76 LPM)                               | 15                          | 10                             |
| HP-40-220 | Double Bowl     | 220 (833L)                    | 40 (151 LPM)                              | 30                          | 10                             |

Note: Custom tank capacities available to suit particular application needs

#### **CENTRIFUGE OPERATION:**

- Dirty fluid is pumped to inlet & directed down the center of the bowl liner.
- 2. Solids are trapped along the circumference of the bowl liner
- 3. Clean fluid exits the top of the bowl & flows through the centrifuge housing
- 4. The filtered fluid exits the centrifuge by gravity







### Magnetic Coolant Cleaners

Permanent magnetic rolls separate ferrous contaminants from machine tool coolants to extend the life of cutting tools, grinding wheels, pumps and coolant fluids. Eriez offers coolant cleaners in indexing or continuously rotating models.

#### **FEATURES:**

- · Easy installation in restricted space
- Maintenance free

#### **APPLICATIONS:**

- · Surface grinders
- · Gear grinders
- Honing and lapping machines
- Broaches
- · Milling and drilling machines
- Face grinders
- · Oil reclaiming machines





#### EIGHT MODELS AVAILABLE:

Choose from a total of 36 standard Coolant Cleaners to match your flow rate, viscosity and degree of separation requirements. Models:

- CS5 and CS8 Continuously rotating roll; smooth face
- CE5 and CE8 Continuously rotating roll extended pole plates
- IS5 and IS8 Indexing roll; smooth face
- IE5 and IE8 Indexing roll; extended poles

These models come in nine magnetic roll widths ranging from 7 to 70 inches (178 to 1778 mm)

# Magnetic Chip & Parts Conveyors

Safely and reliably move ferrous materials such as chips, turnings, small parts and stampings from a sump to a discharge. These units are practically maintenance-free and innovatively designed to ensure the highest level of operator safety.

Most models feature Eriez' unique Tuf-Trac™ track system with no moving external parts to jam or break like hinge belt conveyors. Tuf-Trac's continuous series of powerful magnets pick up and glide material along the stainless steel slider plate, then discharge it over the head end.

#### **FEATURES:**

- Liquid-tight construction
- · Conveyor can be completely submerged in the sump or tank
- Self-cleaning surface
- · Excess fluids drain easily



# Coolant Recycling

### Coolant Recycling Systems

The Eriez Coolant Recycling System (CRS) ties all aspects of a good coolant management program into a self-contained, fully integrated system, capable of recycling any water-miscible fluid to its maximum potential. These units minimize or eliminate disposal costs, reduce fluid concentrate consumption and help improve plant profitability and productivity. With a wide range of tank capacities, Eriez CRS is a low maintenance, low labor system designed for years of trouble-free service and an extremely fast return on investment.

#### **FEATURES:**

- · Separate dirty and clean tanks
- Automatic proportioner mixer coolant make up & control
- Oil removal device free-floating, non-emulsified tramp oil
- Coalescer tramp oil separator
- Liquid-from-Liquid centrifuge clean coolant to <0.5% emulsified tramp oil and 2-5 microns of particulate matter





#### CRS120ST

This feature-packed system's stacked tank design reduces its footprint and comes standard with a high-speed centrifuge for complete recycling of any metalworking coolant. The CRS 120ST's true high-speed centrifuge requires only one pass through the system to remove tramp oils, particulate matter and a substantial portion of the bacterial population. Cleaning the fluid to this degree eliminates the need for expensive, energy-intensive coolant pasteurization.

#### **CRS120SS**

This modular, low-cost coolant recycling system provides the basic requirements of fluid recycling with water-miscible coolant and cleaning products that reject tramp oils. It has a convenient side-by-side tank design and is equipped with a coalescer to remove free and mechanically mixed tramp oils. The CRS 120SS can be fitted with a high-speed centrifuge to address not only the free-floating and mechanically mixed tramp oil, but also remove partially emulsified, bacteria-feeding tramp oils, all of which are a food source for bacteria.

#### CRS300ST

The 300 series delivers an even larger centrifuge for higher processing rates and allows greater flexibility for adding optional equipment. An optional dual product design, the CRS 200/200 ST, features two dirty and two clean tanks for facilities using two different metalworking fluids.

#### CRS300SS

A complete, full capability recycling system for medium-to-large sized metalworking plants equipped with machine tools using individual coolant sumps. The CRS 300SS easily meets the recycling requirements of facilities with up to 10,000 gallons (37,854 L) of total sump capacity.

For operations with greater flow rates or higher processing capacities, custom tank sizes and configurations are also available from Eriez.





# Coolant Recycling

## SumpDoc Portable Fluid Recycling

Unlike any other product in the market, the SumpDoc $^{\text{\tiny TM}}$ is an all-in-one portable fluid recycling system that will filter and rejuvenate metalworking fluids in a machine tool sump without interrupting production.

The SumpDoc Portable Fluid Recycling System allows shop personnel to position the unit alongside the machine tool sump and treat the existing coolant while continuing to operate the machine tool.



#### **FEATURES:**

- · Heavy-duty vacuum removes large chips and heavy sludge
- · Cartridge filter removes fine solid particulate

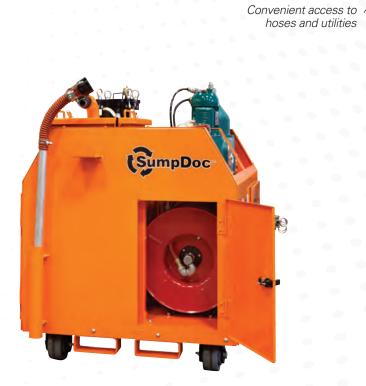
· Ozone generator provides biological control

- · High speed centrifuge removes emulsified oils from coolants
- Tank and pump onboard for tramp oil disposal · Utility hook ups for easy connection to power and air supplies · Touch screen controls for fully automated





Fully automated touch screen controls







#### **GLOBAL LEADER IN SEPARATION TECHNOLOGIES**

#### **HEADQUARTERS**

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