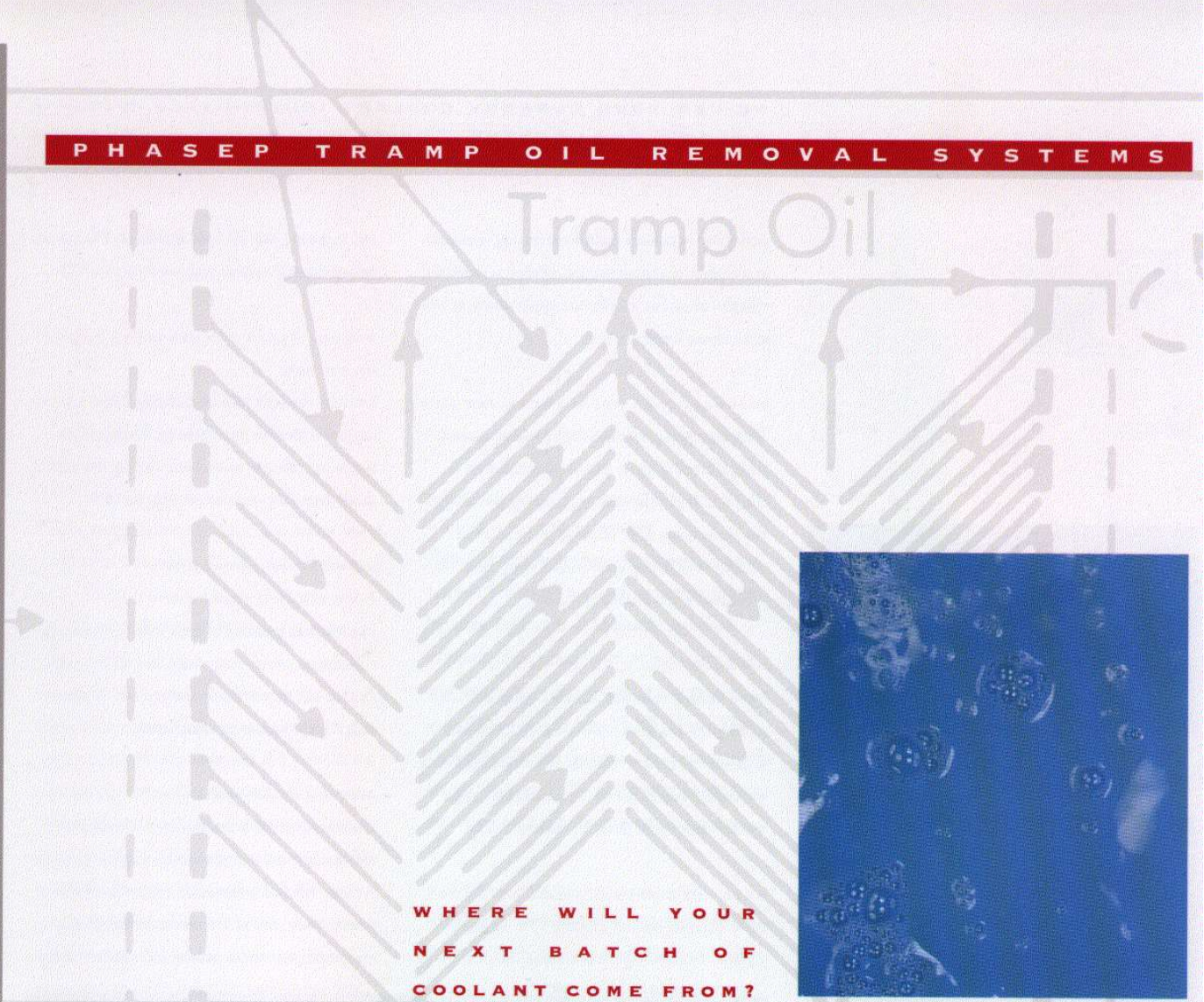
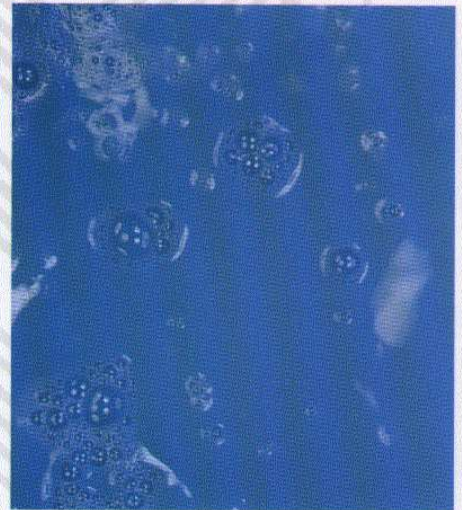


PHASEP TRAMP OIL REMOVAL SYSTEMS

Tramp Oil



WHERE WILL YOUR
NEXT BATCH OF
COOLANT COME FROM?



HOW ABOUT FROM
THE OLD BATCH.



RE-USE YOUR CURRENT COOLANT INDEFINITELY WITH A PHASEP COALESCING TRAMP OIL REMOVAL SYSTEM

PHASEP. CLEARLY BETTER.

For years, aerospace, automotive and specialty manufacturers have trusted PhaSep to keep their coolant clean and their machines running. PhaSep's patented technology outperforms the competition and provides years of service, making PhaSep clearly better at handling oily fluid problems.

IMPROVE COOLANT LIFE BY 50% OR MORE

Oil contamination is the number one cause of metal working fluid disposal. PhaSep's patented oil removal technology will improve metal working fluid life by at least 50%, drastically reducing the need for hazardous waste disposal.

99% OF TRAMP OIL REMOVED

PhaSep utilizes steel coalescing plates to remove 99% of the waste oil from liquids. The orientation of the plate packs creates a non-turbulent linear flow to remove droplets as small as 20 microns. Our plate pack design offers large surface collection area with compact size, and steel construction means no media to dispose. As an added benefit, eliminating waste oil from coolant reduces foul odors.

SUSPENDED SOLIDS REMOVED FROM FLUIDS

Metal fines are often suspended in metal working fluid by tramp oils. PhaSep reduces fines and

settlement in coolant tanks by removing tramp oil at the point of contamination. PhaSep is especially effective in cast or ductile iron applications, as well as aerospace metal working.

IMPROVED HIGH PRESSURE FILTER LIFE

With through spindle and high pressure coolant pumps, keeping filters free of contamination is critical to high tolerance, high quality machining. PhaSep removes filter blinding tramp oils and enhances machining operations. Often, filter life is doubled when PhaSep is applied.

IMPROVE TOOL LIFE UP TO 25%

Metal working fluids lose valuable cooling and lubricating properties when contaminated with oil and fines. Oil free coolant continues to provide lubricating and cooling benefits for the life of the tool. Longer tool life means more profit for the bottom line.

REDUCED DISPOSAL COSTS UP TO 90%

Most disposed coolant contains 10% oil and 90% coolant. By recycling the coolant in the machine

and removing only oil from the liquid, PhaSep can reduce disposal volume and cost by up to 90%.

REDUCE FLUID CONCENTRATE USAGE UP TO 50%

Extended fluid life with no dumping means less concentrate is used for fluid make up. PhaSep allows you to top off tanks instead of dumping and refilling them, decreasing concentrate usage by 50%.

RECYCLE TANK VOLUME FIVE TIMES DAILY

PhaSep units are sized to recycle fluid volumes a minimum of five times daily. In smaller sumps, PhaSep will recycle fluid volume 15 to 20 times each day for maximum effectiveness.

LOW MAINTENANCE

PhaSep requires little maintenance. Cleaning takes only minutes and is recommended three to four times per year. All steel construction and no internal wear parts provide years of continuous service. PhaSep operates 24 hours with little or no attention needed.

PHASEP VERSUS ALTERNATIVE TRAMP OIL REMOVAL SYSTEMS				
	PHASEP TRAMP OIL REMOVAL SYSTEM	WHEEL/BELT SKIMMERS	PLASTIC MEDIA SEPARATORS	CENTRIFUGAL SEPARATORS
PROCESS EFFICIENCY	Excellent: 99% of waste oil removed from liquid. Capable of operating unattended around the clock.	Poor: Removes only what the belt or wheel surface touches.	Poor: Oil does not release from plastic media quickly rendering it useless.	Fair: Good solids separation. Marginal tramp oil removal. Potential exists for splitting coolant.
DURABILITY	Excellent: All steel construction, no media to replace or dispose of. Years of dependable service.	Poor: Wheels crack or belts wear out. Motors are short lived. Not a long term solution.	Fair: Media has reasonable life in coolant applications.	Fair: Relatively durable. Many moving parts to replace. Wear depends on usage.
MAINTENANCE	Low Maintenance: Two to three cleanings per year. No moving parts in coalescer. Plate packs removed and replaced in seconds.	High Maintenance: Often needs to be replaced due to wear. Constantly spilling contents onto floor.	High Maintenance: Frequent cleaning required to maintain efficiency. Very cumbersome and time consuming.	High Maintenance: Requires cleaning once a week or more. 14 to 15 steps required to dismantle and clean.
PROCESSING CAPACITY	Excellent: Smallest unit processes 1000 gallons per day. Frequent tank volume turnover significantly improves liquid purity.	Poor: Doesn't process sumps of any size. Very ineffective means of tramp oil removal.	Fair: Depending on size of unit, processing capacity is acceptable.	Fair: High maintenance diminishes unit usage. Difficult operation diminishes shop participation.

PhaSep designs and manufactures a complete line of oil removal systems to fit your coolant processing needs. For more information on which system is right for you, contact your PhaSep representative.

DEDICATED SEPARATORS

Photo A: For the vast majority of processing applications, a PhaSep dedicated unit provides the maximum oil removal for the minimum investment. These units are designed to operate unattended 24 hours a day, recirculating the entire volume of coolant five to seven times each day. Dedicated systems include the Mini and Junior, which process sumps from 40-200 gallons. Larger custom built separators can be designed to accommodate flow ranges from 1/2 gpm to 400 gpm, making them ideal for waste water treatment, rain water runoff from parking lots, and central coolant systems.

STAINLESS STEEL SEPARATORS

Photo B: The ability to handle a wide variety of temperatures and pH levels has made PhaSep Stainless Steel separators a standard OEM component for manufacturers of parts washers. After market installation is just as effective and simple. Now you can replace inefficient belt or wheel skimmers with a coalescer that maintains cleaner washer fluid and increases the service life of your parts.

PORTABLE SEPARATORS

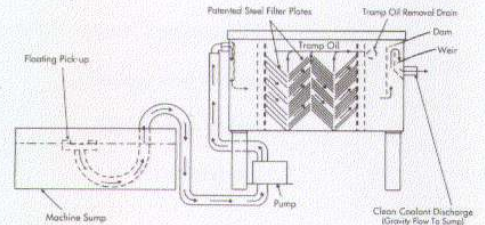
Photo C: For operations requiring occasional coolant turnover, PhaSep offers a variety of portable processing units. These units are lightweight and easy to maneuver. Each portable separator is designed with dual tanks: one for dirty coolant and the other for clean. Each tank holds from 55-100 gallons. The PhaSep Portable unit can be used as a one-step system for treating sumps or changing coolant. Once cleaned, the coolant can further be decanted and polished.

CENTRAL BATCH SEPARATORS

For the most cost-effective management of coolant processing among several machines, try a PhaSep Central Batch Separator. Each tank in the dual tank design has a 200-500 gallon capacity. The system can be programmed to decant and polish cleaned coolant before it is returned to the shop.

SEPARATE YOURSELF

Extending coolant life by more than 50%. And the life of your tools by as much as 25%. Maintaining a cleaner running system by filtering 99% of all tramp oil: droplets as small as 20 microns. Only one system can turn a necessary task into a competitive advantage. Put a PhaSep tramp oil removal system to work for you. Looking for that extra edge? Separate yourself, with PhaSep.



THE MINI AND JUNIOR DEDICATED SEPARATORS PROCESS SUMPS FROM 40-200 GALLONS.



THE STAINLESS STEEL SEPARATOR HANDLES A VARIETY OF TEMPERATURES AND PH LEVELS.



PORTABLE SEPARATORS ARE DESIGNED WITH DUAL TANKS, EACH HOLDING FROM 55-100 GALLONS.

**PUT YOUR FLUID
TO THE TEST**

To determine if PhaSep can help your application, use one of the simple tests below.

1. Visually inspect your coolant tank. If a layer of oil can be seen on the top of your metal working fluid you need PhaSep.

2. If there is too much turbulence in your tank to verify a floating layer of oil, take a sample and set it aside. If, within 15 minutes, oil is present on the surface of your sample, you need PhaSep.

PHASEP. CLEARLY BETTER.

PHASEP NOT ONLY HELPS KEEP YOUR COOLANT CLEAN, IT HELPS KEEP YOUR ENVIRONMENT CLEAN AS WELL. BY ELIMINATING THE BACTERIA FOOD SOURCE IN YOUR COOLANT, PHASEP IMPROVES THE WORKING ENVIRONMENT FOR YOUR MACHINE OPERATORS.

PHASE SEPARATION. FOR SUPERIOR SEPARATION OF PHASES, SUCH AS OIL FROM COOLANT, OUR NAME SAYS IT ALL, PHASEP.

PHASEP



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