





### Achieve cutting edge production with TRIM™ cutting and grinding fluids

- > significantly reduces fluid and tool costs
- > reduces downtime and labor
- > lowers disposal costs
- > assures code compliance
- > excellent operator acceptance
- > a safer workplace for employees
- > immediate savings to the bottom line

TRIM Product	Product Characteristics
TRIM™ MicroSol™690XT High-lubricity, Low-foam Premium Semisynthetic	Ultimate lubricity. Robust stability package for long life. Exceptional foam control. Excellent environmental and regulatory profile. Boron free and nonchlorinated. Multi-metal compatible.
TRIM™ MicroSol™590XT NEW! Advanced Technology Aerospace Semisynthetic	Specifically designed for aerospace; protects sensitive alloys from surface stains and corrosion. Maximum lubricity. Unsurpassed sump life and foam control. No boron or DCHA, nonchlorinated, needs no tankside additives.
TRIM™ MicroSol™ 585XT Extended-life, Nonchlorinated Semisynthetic	Extended-life, high-lubricity, microemulsion coolant delivers excellent cooling and mechanical lubricity. Well suited for machining and grinding gray iron, mixed metal situations, titanium and aluminum alloys.
TRIM™ MicroSol™ 455 NEW! Low-foam Ferrous Semisynthetic	Low-foam semisynthetic, microemulsion for high-volume cast iron, ferrous, and some aluminum and nonferrous metalworking. Prevents leaching of elemental iron. Eliminates clinkering and oxidation of ferrous micro fines.
<b>TRIM™ E950</b> High Performance Machining Emulsion	Extremely high-performance but clean running emulsion product for the toughest applications. Very low foam even in soft water. Fully approved by Rolls-Royce.
<b>TRIM™ E925</b> Chlorine-free, High-performance Emulsion <b>NEW!</b>	Superior finish on aerospace titanium and aluminum alloys, exotics, stainless, and high tensile strength steels. Exceptional performance and sump life with more lubricity to the point-of-cut. Nonchlorinated.
TRIM™ E709 Long-life Emulsion	High-quality, universal soluble oil requires minimal maintenance in the most demanding fluid management systems. For tough machining and grinding jobs and high-quality, consistent parts manufacturing.
TRIM SOL™ General-purpose Emulsion	General-purpose multi-metal soluble oil coolant for general machining of ferrous and nonferrous materials. For heavy-duty machining center work and high-speed turning and grinding operations.
TRIM SOL™ LC sf General-purpose Emulsion, Nonchlorinated, Siloxane Free	Nonchlorinated, siloxane free, general-purpose multi-metal soluble oil coolant for general machining of ferrous and nonferrous materials. For heavy-duty machining center work and high-speed turning and grinding operations.
TRIM™ SC9030 High-lubricity Semisynthetic	Provides the cooling, rust inhibition, and wetting of a premium synthetic with the mechanical lubricity and machine "friendliness" of a soluble oil. For general high-speed machining and grinding of all materials.
TRIM™ SC310 High-oil Semisynthetic	Highly versatile high-oil semisynthetic for machining/grinding a very wide range of materials.
<b>TRIM™ C350</b> Premium, High-lubricity Synthetic	Longer tool life, less residual stress on machined parts. PRTR compliant; free of chlorine, phenol, nitrite, copper, triazine, silicone; NO NPE or SARA 313 chemistry. Rust protection on aluminum, titanium, nickel, and steel alloys.
<b>TRIM™ C270</b> High-performance Synthetic	Synthetic coolant concentrate operates at very high fluid pressures and volumes with little or no foam.  Very stable formula, exceedingly long operational life with consistent performance. Nonchlorinated.



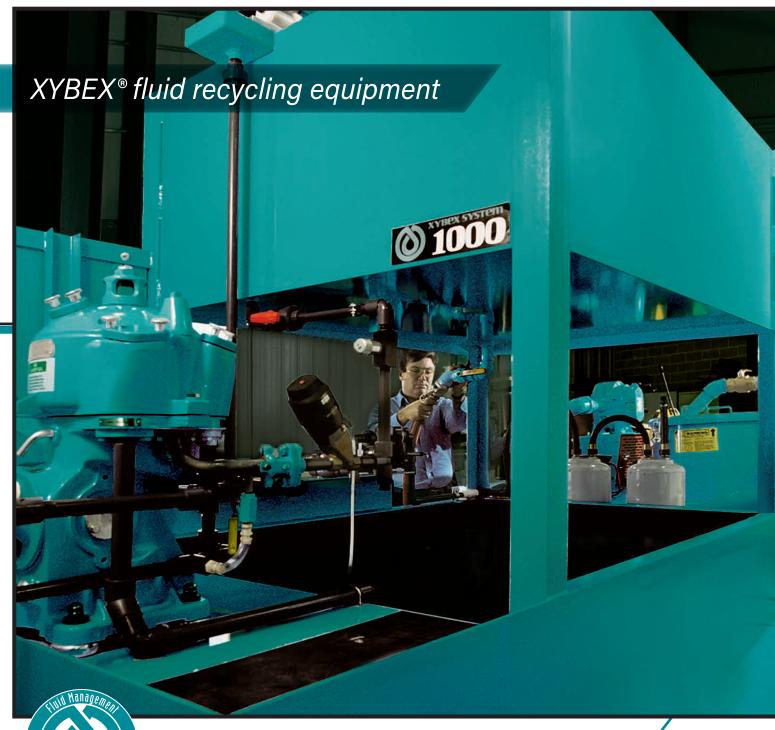


### Rely on hard-working Master STAGES™ to clean and protect

- > spray, immersion, or ultrasonic parts cleaning
- > multi-metal operations
- > metalworking fluid removal
- > cleaners with built-in and water-based RP's
- > vibratory finishing
- > reduce disposal costs

		> reduce disposal costs > immediate savings to the bottom line	
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	Master STAGES Product	Product Characteristics	
Parts Cleaners	Master STAGES™ CLEAN 2020 Washing Compound for Ultrasonic and Immersion Washers	Very fast cleaning even at energy-saving low temperatures. Good oil splitting; built-in RP. Phosphatefree.	
	Master STAGES™ CLEAN 2029 "One Step" Parts Washing Fluid with Corrosion Inhibitor	High detergent, low foam, and good in-process rust prevention with just "One Step." Mild pH for a safer work environment. Use at 3%–5% and 120°F–180°F (49°C–82°C) for best results and lowest foam.	
	Master STAGES™ CLEAN 2115AL Low-foam Spray Washing Compound	Aluminum-compatible, high-performance, low-foam synthetic washing compound; for very high-pressure spray washers, de-burring, and water jet cutting. Exceptional sump life, foam control, and tramp oil rejection.	
	Master STAGES™ CLEAN 3011 Residue-free, Multi-metal Cleaner	Concentrated washing compound/corrosion inhibitor. No foam at room temperature in high- pressure spray washers. Removes light oils, water soluble cutting and grinding fluid residues. Leaves thin rust-inhibiting film.	
Maintenance cleaners Inhibitors	Master STAGES™ RPO 12 Long-term Corrosion Inhibitor	Long-term, indoor rust preventative with a soft waxy film. Compatible with all metals and can be applied by dip, spray, or brush-on methods. Film thickness approximately eight microns.	
	Master STAGES™ NOCOR™ E6 Low V.O.C. Emulsion, Corrosion Inhibitor Concentrate	Super-concentrated, barium-free, water-based emulsion protects steel and ferrous metals for up to six months indoors at dilutions of 4%–16%. Low V.O.C., economical. Moderate pH, very low odor, and nonflammable.	
	Master STAGES™ NOCOR™ S2 Water-soluble Corrosion Inhibitor	Use NOCOR S2 at 3%–7% in water for up to two months indoor rust prevention. Barium free, low V.O.C., and economical to use. Can be used in rinse stage of parts washers.	
	Master STAGES™ Whamex™ Machine Tool Sump and System Cleaner	Safe, fast-acting concentrated formula saves machine cleaning downtime while removing the oily residues, scums, and insoluble soap deposits that reduce coolant life. For use with emulsions and semisynthetics.	
	Master STAGES <sup>™</sup> Task2 <sup>™</sup> Grime Fighter	Super-concentrated, industrial strength cleaner/degreaser. NO butyl, caustic, silicate, phosphate, nitrite, phenol, or borate. Safe on all metals. Full strength or dilute up to 100:1. Certified "Readily Biodegradable" by OECD. Pratt Whitney Aerospace Approval PMC 1247-1. Handy spray bottle.	
	Master STAGES <sup>™</sup> Task2 <sup>™</sup> All Purpose Cleaner	Removes heavy, oily, or greasy soils from all common surfaces. NO butyl, caustic, silicate, phosphate, nitrite, phenol, or borate. Safe on all metals. Use full strength or dilute. Certified"Readily Biodegradable" by OECD. Pratt Whitney Aerospace Approval PMC 1455-11. Handy spray bottle.	
	Master STAGES <sup>™</sup> Task2 <sup>™</sup> Glass Cleaner	Cuts through tough shop soils to clean glass, ceramics, stainless steel, chrome, and plastic surfaces. Free of butyl, caustic, silicate, phosphate, nitrite, phenol, or borate. Safe on all metals. Pratt Whitney Aerospace Approval PMC 1406-41. Handy 1-quart spray bottle.	





Customers who recycle their fluids realize a 40%–80% reduction in coolant and fluid purchases.

### Reduce costs dramatically with XYBEX® fluid recycling equipment

- > significantly reduces coolant usage
- > reduces downtime, repair costs, and labor
- > greatly reduces disposal fees
- > easily pays for itself with cost savings



230VAC Electric Yellow Bellied Sump Sucker™ Cleans virtually any machine tool sump quickly by filtering sludge and chips from coolant. Available in multiple configurations, sizes, and power sources.



**Drum Top Sump Cleaner™**Economical vacuum unit which converts an existing open-top drum into a powerful machine tool sump cleaner.



SCROUNGER™ Jr. Oil Skimmer Effectively removes troublesome tramp oil from coolant for longer sump and tool life, better surface finish, and cleaner machines and workplace.



Water-driven, positive displacement proportioner dispenses coolant concentration on demand.

Option for alkaline parts washing.



MCC Reversible LIQUI-VAC™ Sucks up tramp oils, used oils, and waste coolants– fast and simple. Can discharge fluids from drum to a separate container.



Mini Dos
Compact, low- to mid-flow, fluid-driven proportional injector. Segregates harsh chemicals from critical internal components.



The Whammer™

Durable, low-cost dispenser for Master STAGES™ maintenance cleaners produces foaming stream for cleaning machine tools or large clean-in-place parts.



Palm Abbe® Digital Refractometer
For fast, accurate, laboratory-precision readings in degrees Brix. Self-calibrating to water, ready to use in seconds. Easy-to-read display.



**Refractometer**Optical refractometer for quick fluid sample readings.

#### Contact us

Let us create a detailed, fact-based, customized analysis to prove just how much we can save your operation in time, material, and cost, while improving quality, with the premium coolant just right for your production.

For prices or additional information, contact your Master Fluid Solutions Representative.

