



**Master Fluid**  
SOLUTIONS™

*Improve Performance,  
Streamline Production,  
Enhance Profitability*



**INNOVATIONS**  
FOR LONGER SUMP  
AND TOOL LIFE



*TRIM™ Metalworking Fluids*



**INNOVATIONS  
FOR LONGER SUMP  
AND TOOL LIFE**

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

- > Significantly reduce fluid and tool costs
- > Reduce downtime and labor
- > Lower disposal costs
- > Assure code compliance
- > Excellent operator acceptance
- > A safer workplace for employees
- > Immediate savings to the bottom line

Microemulsions

Emulsions

Semisynthetics

Neo-Synthetics

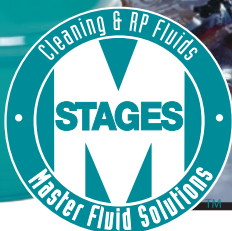
Synthetics

Straight Oils

TRIM™ Products	Product Characteristics
<b>TRIM™ MicroSol™ 690XT</b> <i>High-lubricity, Low-foam Premium Semisynthetic</i>	High-lubricity coolant with extended sump life and superior foam control. Delivers excellent cooling, mechanical lubricity, and machine-friendly characteristics. Ideal for mixed metal applications and compatible with titanium, high nickel alloys, steels, copper, and aluminum alloys.
<b>TRIM™ MicroSol™ 687NXT</b> <i>Premium High-lube PRTR Microemulsion</i>	Translucent, premium high-lube, PRTR compliant microemulsion. Low foaming in soft water, stable in hard water. Perfect for machining challenging metals like stainless steel and Inconel®, as well as aerospace-grade aluminum alloys.
<b>TRIM™ MicroSol™ 585XT</b> <i>Extended-life, Nonchlorinated Semisynthetic</i>	Extended-life, high-lubricity, microemulsion coolant delivers excellent cooling and mechanical lubricity. Well suited for machining and grinding gray iron, mixed metal situations, and titanium and aluminum alloys.
<b>TRIM™ MicroSol™ 455</b> <i>Low-foam Ferrous Semisynthetic</i>	Low-foam, semisynthetic microemulsion for high-volume cast iron, ferrous, and some aluminum and nonferrous metals. Prevents leaching of elemental iron. Eliminates clinkering and oxidation of ferrous micro fines.
<b>TRIM™ E935</b> <i>Premium Universal Emulsion</i>	Premium universal emulsion coolant designed for a wide range of ferrous and nonferrous metals. Highly effective in cutting and grinding operations, providing stable and predictable performance. The top choice for precision and consistent parts manufacturing.
<b>TRIM™ E709QNI</b> <i>Long-life Emulsion</i>	High-quality, universal soluble oil for low-maintenance fluid management. Versatile application in machining and grinding across various materials. Exceptional chemical and mechanical lubricity for tough jobs. Achieve stable, predictable performance and produce consistent, high-quality parts effortlessly.
<b>TRIM™ SC639</b> <i>General Purpose Semisynthetic</i>	General purpose semisynthetic cutting and grinding fluid concentrate. Offers an excellent cooling and lubricity balance. Provides superior corrosion protection for both ferrous and non-ferrous metals. Ideal for a wide range of high-speed turning and grinding operations. Leaves a thin, water-soluble oil residue, safeguarding machine tools and maintaining cleanliness.
<b>TRIM™ SC410</b> <i>Chlorine-free Semisynthetic Coolant</i>	Chlorine-free, semisynthetic coolant with vegetable-derived lubricants. Ideal for moderate-duty machining and grinding of ferrous and nonferrous materials, optimized for "gray iron" castings and ferrous surface/ cylindrical grinding.
<b>TRIM™ SC310</b> <i>Microemulsion Semisynthetic</i>	High-oil, semichemical coolant offering the best of both worlds. Enjoy the cooling, rust inhibition, and wetting of a premium synthetic, along with the mechanical lubricity and machine "friendliness" of a soluble oil. Perfectly suited for general, high-speed machining and grinding of all materials.
<b>TRIM™ HyperSol™ 888NXT</b> <i>Neo-synthetic Precision Aerospace Machining Fluid</i>	Revolutionary, neo-synthetic technology offers unsurpassed versatility and performance on hard aerospace metals—titanium and high-nickel alloys, stainless steels, and Inconel® – and superior lubricity for machining soft, gummy aluminum alloys. Low foam, low odor, and long running, meeting the strictest environmental regulations.
<b>TRIM™ C115</b> <i>Synthetic Metalworking Fluid</i>	High-performance synthetic fluid for cast iron and mild steels. Offers superior cooling, chip settling, tramp oil rejection, and machine cleanliness, with added machine tool protection.
<b>TRIM™ C276</b> <i>Clean-running Synthetic</i>	Specially synthesized oil for centerless and cylindrical form grinding, high-speed, single-point turning, and down-the-hole work. Machine- and operator-friendly, great sump life and tramp oil rejection.
<b>TRIM™ C385</b> <i>High-lubricity Honing Synthetic</i>	A premium synthetic coolant providing excellent cooling and chip removal, along with good tramp oil rejection and machine cleanliness. Ideal for modern job shops as a single solution for honing and all machining operations.
<b>TRIM™ C290</b> <i>Economical Synthetic Fluid for Aluminum Machining</i>	A high-performance synthetic metalworking fluid designed for efficient machining of aluminum parts. Its advanced formula ensures excellent lubricity and superior corrosion prevention for various aluminum alloys. Easy to use and maintain.
<b>TRIM™ OM350C</b> <i>Heavy-duty Cutting Oil</i>	Heavy-duty, mineral oil-based cutting fluid with high-performance synthetic ester-based additives. Perfect for metal cutting and grinding, especially steel broaching. Ideal for tapping, milling, reaming, and multi-metal applications, including copper alloy, aluminum alloy, and heat-treated steel.
<b>TRIM™ OM210</b> <i>High-performance, Cutting and Grinding Oil</i>	Low-odor, light-colored oil with low viscosity and high lubricity. Perfect for general machining and particularly effective in deep-hole drilling and creepfeed grinding. Enhances tool life and reduces heat by flowing into the cutting zone and wetting the surfaces.



*Master STAGES™ Cleaners  
and ONYX™ Lubricating Oils*



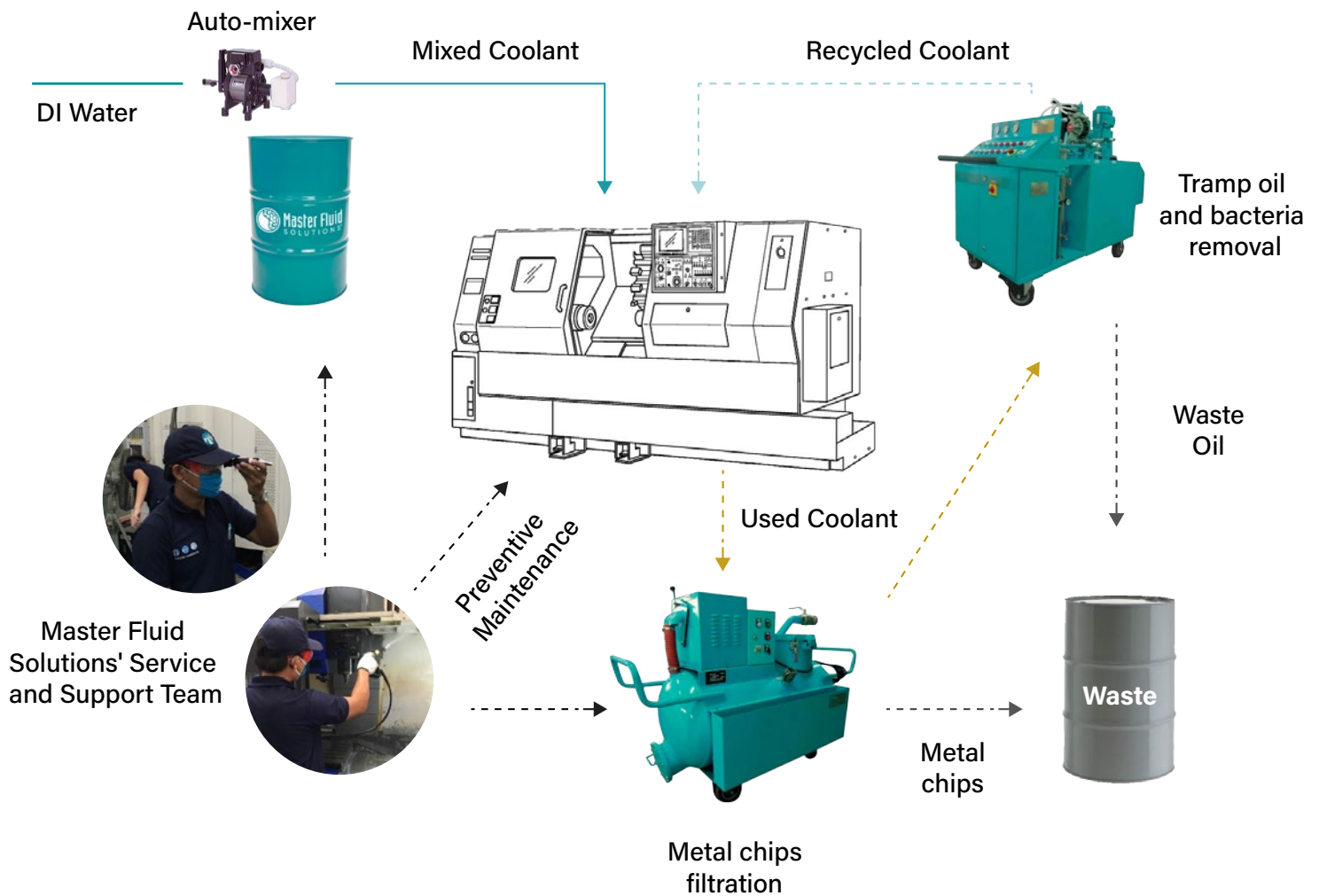
# INNOVATIONS FOR LONGER SUMP AND TOOL LIFE

*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 RPs
- > Vibratory finishing
- > Reduce disposal costs
- > Immediate savings to the bottom line

Master STAGES™ and ONYX™ Products		Product Characteristics
Parts Cleaners	<b>Master STAGES™ CLEAN 2017</b> <i>Economical, Heavy-duty Spray Cleaner</i>	Removes heavy soils and oily residue from ferrous and magnesium parts. Often used in rebuild operations and for cleaning up cast iron, stamped or drawn steel parts, or removing heavy RP coatings.
	<b>Master STAGES™ CLEAN 2021</b> <i>Washing Compound for Ultrasonic and Immersion Washers</i>	Excellent cleaner for removing oils and coolants from aluminum, magnesium, or brass in immersion and ultrasonic washers. Easily splits out contaminants and provides very rapid and effective cleaning. Also suitable for ferrous metals. If longer protection is needed for storage, a corrosion inhibitor like NOCOR™ 03T can be applied after washing process.
	<b>Master STAGES™ CLEAN 2029</b> <i>"One Step" Parts Washing Fluid with Corrosion Inhibitor</i>	Highly concentrated, 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.
	<b>Master STAGES™ CLEAN 2115AL</b> <i>Low-foam Spray Washing Compound</i>	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.
	<b>Master STAGES™ CLEAN IP2019s</b> <i>Silicated Low-foam Cleaner</i>	Very low foaming cleaning concentrate removes straight oils and coolants from steel, cast iron, and most aluminum parts. An excellent cleaner and very economical. Rejects oil for easy skimming or centrifuging to extend bath life.
Maintenance Cleaners	<b>Master STAGES™ Whamex™</b> <i>Machine Tool Sump and System Cleaner</i>	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.
	<b>Master STAGES™ Task2™</b> <i>All Purpose Cleaner</i>	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 diluted. Certified "Readily Biodegradable" by OECD. Pratt & Whitney Aerospace Approval PMC 1247-1. Handy 1-quart spray bottle.
	<b>Master STAGES CLEAN F2™</b> <i>Non-butyl Floor and Multi-purpose Cleaner</i>	Strong and super concentrated for use on floors and hard surfaces. Very economical to use and safe for human contact at 20% concentration!
Solvent Base RPs	<b>Master STAGES™ NOCOR™ 03T</b> <i>Barium Free, Low Odor, Corrosion Inhibitor</i>	Barium-free, non-staining, water-displacing, thin-film corrosion inhibitor and rust preventative suitable for a variety of metals. Offers indoor corrosion inhibition and excellent protection for bearings, precision parts, in-process parts in storage, and parts in transit.
	<b>Master STAGES™ NOCOR™ 06T</b> <i>Barium Free, Low Odor, Corrosion Inhibitor</i>	Barium-free, non-staining, water-displacing, thin-film corrosion inhibitor and rust preventative designed for various metals. Offers indoor corrosion inhibition and excellent protection for bearings, precision parts, in-process parts in storage, and parts in transit.
Machine Lubricants	<b>ONYX™ HYD 32AP</b> <i>Hydraulic Oil</i>	Premium anti-wear hydraulic oil for power-, control-, industrial-, and automotive- systems, providing exceptional protection and performance.
	<b>ONYX™ SLIP 68AP</b> <i>Slideway Lubricant</i>	Premium fluids for machine tool slideways, resists water coolant degradation, provides strong adhesion, mild EP properties, and prevents friction issues.

## XYBEX™ Coolant Management



### Our offerings unlock solutions together:

- > From problem-solving to process enhancement
- > Expert coolant management
- > Cost-efficiency and waste minimization
- > **We're your trusted partner!**

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







**XYBEX™ TOT-Star**  
*Portable Centrifuge for Removal of Emulsified Tramp Oil*

Compact, portable, high-speed centrifuge, tramp oil separator will process both water-miscible coolants and aqueous cleaners to remove free and emulsified tramp oils.



**XYBEX™ Li'l Sucker™**  
*Yellow Bellied Sump Sucker™ Lil Sucker™*

Quick, easy, and affordable sump cleaning. Eliminate issues caused by chips and fines in machine sumps.



**XYBEX™ Automix Master**  
*Automated Cutting Fluid Mixing System*

High accuracy automated proportional mixing system with flow sensor to maintain stable coolant concentration and reduce consumption.



**XYBEX™ PurifierPlus™**  
*Cutting Fluid Purifying System*

Boosts production, cuts costs, and maintains cleanliness by separating machine tramp oil, disinfecting with ozone. Clean coolant that you get as the result of the process.



**XYBEX™ ChipOut™**  
*Chip & Sludge Remover*

The perfect match for PurifierPlus. Compact, efficient, and cost-effective. Optimize production and ensure clean coolant return.



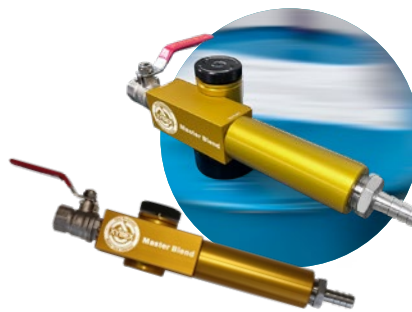
**XYBEX™ ChipOut Plus™**  
*Magnetic Centrifugal Sludge & Chip Remover*

Compact, portable, and efficient coolant separator. Longer coolant life, reduced maintenance, and enhanced machinability. Removes impurities, including chips, for optimal performance.



**XYBEX™ Master Vac**  
*For Sump Cleaning*

Quickly remove tramp oil and coolant waste from coolant tank. The fluid can be discharged to a separate container.



**XYBEX™ Master Blend**  
*Drum-mounted Mixer*

Coolant mixing system to ensure precise and consistent coolant concentration.



**Palm Abbe™ Digital Refractometer**  
*Laboratory Precision in the Palm of Your Hand!*

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

*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 and additional information, contact your Master Fluid Solutions Representative.



[www.masterfluids.com/th/en-th/](http://www.masterfluids.com/th/en-th/)

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