



# Master STAGES™



## Machine Tool Sump and System Cleaner

### GENERAL DESCRIPTION

Master STAGES™ Whamex™ is a safe, fast-acting concentrated formula that will save machine cleaning downtime while removing the oily residues, scums, and insoluble soap deposits that reduce coolant life. Whamex is made for cleaning out machine tool sumps and larger systems, coolant supply lines, and coolant recycling equipment. Whamex is compatible with most waste treatment (including ultrafiltration) and will not degrade TRIM® metalworking fluids when used as directed.

### ADVANTAGES

- A very specialized formula that draws on Master Chemical’s knowledge of coolant formulation and many years of hands-on experience in machine cleanouts
- Quickly breaks down and lifts off insoluble scum deposits hidden in lines and difficult to reach areas - getting rid of these residues is one of the best ways to extend coolant life in your system
- Very hard water tolerant allowing it to be effective in raw water or used coolant
- Environmental approvals are simplified because Whamex contains no nitrites, phosphates, barium, phenols, or butyl cellulose; this formula has very low V.O.C. content and no SARA 313 reportable ingredients
- When used as directed below, this product is compatible with TRIM® brand synthetic, semisynthetic, and soluble oil coolants, as well as most competitive coolants. Will remove heavy soils from machines without affecting paints, coatings, seals, hoses, or skirting, and it won’t leave a slippery residue
- Short-term corrosion inhibitors prevent flash rusting of machine surfaces and ways

### APPLICATION GUIDELINES

- Use a high-flow sump cleaner such as a Yellow Bellied Sump Sucker™, to quickly remove spent fluids and residues.
- Add up to 0.1% Master STAGES™ CLEAN DF1 to control foam in high-pressure, high-flow systems.
- All used coolant or rinse water must be recycled or disposed of in accordance with local, state, or provincial, and national environmental regulations.
- For additional product applications information including performance optimization, please contact your Master Chemical Authorized Distributor at [2trim.us/distributors.php](http://2trim.us/distributors.php) your District Sales Manager, the Tech Line at 1-800-537-3365, or visit our web site at [www.masterchemical.com](http://www.masterchemical.com).

### HEALTH AND SAFETY

- Avoid prolonged and/or repeated skin and inhalation contact with spray mist. See the most current SDS at [2trim.us/s/?i=1146-en-US-US](http://2trim.us/s/?i=1146-en-US-US).



### PHYSICAL PROPERTIES (TYPICAL DATA)

Form.....	Liquid	Flash Point.....	215°F (102°C) (ASTM D-93)
Color (Concentrate).....	Yellow	pH of 2% Working Solution.....	10.6
Specific Gravity.....	1.026-1.134	pH of 5% Working Solution.....	10.5
Odor.....	Mild		

## PREFERRED METHOD FOR CLEANING MACHINE TOOLS AND CENTRAL SYSTEMS

- Add 1%-3% Whamex™ into the machine sump and run machine as normal for at least 24 hours or more for best results. If the machine runs high pressure through-the-tool for significant amounts of time, the cleaner may cause some foam, keep a defoamer, such as CLEAN DF1 or TRIM® TC 239, available during this process.
- After the Whamex™ has circulated for at least 24 hours, pump out the sump and remove all chips, sludge, residue, and swarf. Remember to clean out overflow areas and flumes.
- Spray down the machine with a 10%-15% Whamex™ and water solution using The Whammer™ or a general-purpose garden sprayer. Scrub out the chips, sludge, and any other residues from all interior, exterior, tool changer areas including high-pressure sumps and filter canisters.
- When possible, pull out the sump and remove the conveyor, and clean all surfaces of the sump and conveyor including screens, covers, and the pumps themselves with the 10%-15% Whamex™ solution. When complete, remove all fluid, chips swarf, grime, and sludge.
- Fill the sump with enough water to circulate the pumps and mix in 3%-5% Whamex™. Circulate this cleaning solution through the coolant system for 30-60 minutes.
- Replace conveyor and sump; rinse the machine with water and 1.0% TRIM® coolant for rust protection, and circulate mixture through the coolant system for 10-30 minutes.
- Pump out the rinse water as dry as possible and recharge with fresh TRIM® coolant at the designated concentration.
- After circulating for 30 minutes check the concentration and make the necessary adjustments to insure the TRIM® coolant is within the designated concentration range.

## QUICK CLEANING METHOD (FOR NONCRITICAL INTERIM CLEANING)

- Add 1%-3% Whamex™ and circulate for 24 hours or more for best results. If the machine runs high-pressure through-the-tool for significant amounts of time, the cleaner may cause some foam, keep a defoamer, such as DF1 or TC 239, available during this process.
- Utilizing The Whammer™, scrub down the machine including the inside, tool changer, exterior and crevices
- Remove fluid sump and chip conveyor when possible and clean out all chips and swarf (Don't forget pumps, covers, high-pressure tanks and filter canisters)
- Replace conveyor and sump and rinse with 1% TRIM® coolant for 10-30 minutes
- Remove 1% rinse fluid and recharge at specified concentration
- Check concentration with refractometer

## NOTES

- Packaging: North America – 5-gallon pail, 54-gallon drum, 270-gallon recyclable bin, and tank wagon lot;
- Europe/Asia – 20-litre pail and 204-litre drum.

## CHECKING CONCENTRATION

Whamex concentration may be checked by titration or conductivity for working solutions. Fresh charges in water only may be checked by refractometer.

## TITRATION

Use Master STAGES™ Titration Kit CL-1, Indicator B, and two vials of working solution.

Drops of Acid	1	2	3	4	5
% Whamex	1.1%	2.2%	3.3%	4.4%	5.5%

Titration Formula: Drops of Acid x 0.25 = % Concentration of Whamex

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URL: [trim.us/di/?i=118](http://trim.us/di/?i=118).

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