

# TRIM<sup>®</sup> HD

## Synthetic Stamping Fluid

TRIM HD is a synthetic stamping fluid for light-to-moderate duty stamping, drawing, and forming and can also be used for general machining and grinding of ferrous materials. It utilizes a proprietary blend of heavy-duty boundary and extreme pressure lubricity agents for improved performance on stainless steel, super alloy, and most soft aluminum.

### Synthetics



#### Peak your performance:

*TRIM<sup>®</sup> clean-running synthetics contain little to no oil. They are typically hard-water tolerant with good corrosion protection. Plus, synthetics leave very low residue for easy cleaning. Paired with extremely low carryoff, synthetics translate to less maintenance and lower operational costs, saving you time and money.*

*Run clean and long with TRIM synthetics.*

### Aerospace Approvals

Company	Specification
General Dynamics	No specification available



#### Choose HD:

- Lubrication package protects machines and extends the life of the die
- Provides rapid and effective cooling and reduces machining forces through the use of EP additives and boundary lubricants
- Has superior anti-weld action to control built-up edge and chip welding
- Compatible with all ferrous and most nonferrous materials
- Broad range of applications by using different concentrations for different applications
- Fully compatible with most nonmetallic materials
- A superior product for low-speed, high-pressure operations such as production band sawing and drilling
- Will keep your machines clean while leaving a soft, fluid film that protects the bare metal parts of your machine tools

#### HD especially for:

**Applications** — band sawing, drilling, grinding, high-pressure, machining, and stamping

**Metals** — aluminum, ferrous metals, most nonferrous metals, nonmetallic materials, stainless steels, and super alloys

**Industries** — aerospace and automotive

**HD is free of** — oil

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## Synthetic Stamping Fluid



### Application Guidelines

- Typical concentration range is 10.0% - 20.0% or can be used neat for more severe stamping, blanking, or punching operations.
- HD is not recommended for use on reactive metals (i.e., magnesium or zirconium).
- For additional product application information, including performance optimization, please contact your Master Fluid Solutions' Authorized Distributor at <https://www.masterfluids.com/na/en-us/distributors/index.php>, your District Sales Manager, or call our Tech Line at 1-800-537-3365.

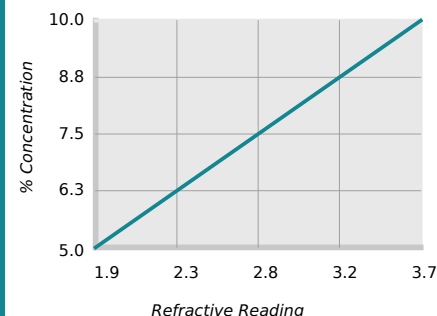
### Physical Properties Typical Data

Color (Concentrate)	Cream
Color (Working Solution)	Opaque
Odor (Concentrate)	Mild pine
Form (Concentrate)	Liquid
Flash Point (Concentrate) (ASTM D92-90)	> 208°F
pH (Concentrate as Range)	8.4 - 9.0
pH (Typical Operating as Range)	8.3 - 8.9
Coolant Refractometer Factor	2.7
Titration Factor (CGF-1 Titration Kit)	0.68
Digital Titration Factor	0.0196
V.O.C. Content (ASTM E1868-10)	73 g/l

### Recommended Metalworking Concentrations

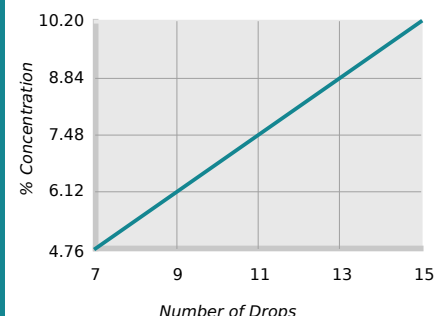
Light Duty	5.0% - 6.5%
Moderate Duty	6.5% - 8.5%
Heavy Duty	8.5% - 10.0%
Design Concentration Range	5.0% - 10.0%

### Concentration by % Brix



% Concentration = Refractive Reading x Refractive Factor  
Coolant Refractometer Factor % Brix = 2.7

### Concentration by Titration



% Concentration = No. of Drops x Titration Factor  
Titration Factor = 0.68

### Health and Safety

Request SDS



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### Mixing Instructions

- Recommended usage concentration in water: 5.0% - 10.0%.
- To help ensure the best possible working solution, add the required amount of concentrate to the required amount of water (never the reverse) and stir until uniformly mixed.
- Use premixed coolant as makeup to improve coolant performance and reduce coolant purchases. The makeup you select should balance the water evaporation rate with the coolant carryout rate. Use our Coolant Makeup Calculator to find the best ratio for your machine: [apps.masterfluids.com/makeup/](https://apps.masterfluids.com/makeup/).
- Use mineral-free water to improve sump life and corrosion inhibition while reducing carryoff and concentrate usage.



1-gallon jug  
SKU: HD-1G  
UPC-12: 641238003656



5-gallon pail  
SKU: HD-5G  
UPC-12: 641238003670



54-gallon drum  
SKU: HD-54G  
UPC-12: 641238003687



270-gallon tote  
SKU: HD-270G  
UPC-12: 641238046875

### Additional Information

- Use Master STAGES<sup>™</sup> Whamex XT<sup>™</sup> for a quick and thorough precleaning of your machine tool and coolant system.
- Consult Master Fluid Solutions before using on any metals or applications not specifically recommended.
- This product should not be mixed with other metalworking fluids or metalworking fluid additives, except as recommended by Master Fluid Solutions, as this may reduce overall performance, result in adverse health effects, or damage the machine tool and parts. If contamination occurs, please contact Master Fluid Solutions for recommended action.
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