FERRO
ELECTRONIC MATERIAL SYSTEMS

Grinding Fluids

FLC-320
Precision Ferrous Metal Grinding Fluid

FLC-320 is a precision grinding fluid formulated for use on ferrous and non-ferrous metals where high levels of finish are required, including double disc grinding, knife grinding, cam shaft grinding, bearings, electronic components, surgical instruments, and paper rolls.

Superior Finish – FLC-320 is formulated to offer the highest levels of surface finishing possible, even on hard to finish metals such as chrome and stainless steel.

High Line Speeds – FLC-320 is formulated with high levels of lubricity additives, allowing increased line speeds.

Highly Dilutable – FLC-320 can be diluted to extended levels (35:1 to 40:1) with water, and produce a perfect pass in the ASTM Cast Iron Chip test.

Outstanding Corrosion Protection – FLC-320 provides significantly higher levels of in-process and machine corrosion control than most competitive materials.

Non-Sticky – FLC-320 will not build up on floors and equipment.

Biological Stability – FLC-320 provides extended tank life and low sludge levels due to biological build up.

Safe on Most Metals – FLC-320 will not attack most ferrous or non-ferrous metals. It will not attack electrical components and contacts.

Waste Treatable – FLC-320 rejects tramp and way oils; therefore, it is easily waste treated by simple and inexpensive methods. Always contact your local and state agencies before disposing of this or any other material.

Calculating Starting Amount of Coolant – To calculate the correct amount of coolant to be added to the sump, multiply coolant sump volume by 7.5 (the number of gallons of liquid in a cubic foot).

Example:
Tank width = 2 ft
Tank length = 6 ft
Tank depth = 2 ft
Volume = 2 x 6 x 2= 24 cu ft
Liquid Volume = 24 x 7.5 = 180 gal

For a 50:1 concentration, add 180/50 = 3.6 gal to the coolant tank.

Adding FLC-320 to the Coolant Tank – When diluting FLC-320, ensure that the machine sump is clean and free of built up glass fines and other foreign materials. Always add water to the sump first after cleaning, and then add FLC-320. Circulate the sump for several minutes before starting production to give the tank time to completely mix.

Checking Concentration – Coolant concentration should be checked daily whenever possible. The simplest method is with a hand held refractometer. For the best results, always filter the coolant through a 1-micron filter before reading the solution concentration. Once the coolant has been

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filtered, place a drop or two on the face of the refractometer. Hold the instrument up to the light and read the number just at the light colored line on the screen face. Write down and use it to refer to the refractive index chart enclosed with the product. Find the reading on the refractometer and locate it on the left-hand side of the chart. Now read to the right and down to determine the current dilution.

Recommended Starting Dilutions

Grinding	20:1 to 25:1

Typical Properties

Appearance	Clear Green Liquid
Volatile Component	Water
Freeze Point	32°F
Boiling Point	212°F
pH	10 - 10.3
Evaporation Rate	NA
Odor	Mild
Vapor Pressure	NA
Vapor Density	NA
Specific Gravity	1.04 - 1.05
VOC	None
Weight per Gallon	8.65 - 8.75
Solubility in Water	Infinite

Packaging and Handling – FLC-320 is a liquid packed in non-returnable drums, Tote Bins, Pails, and Bulk. Refer to the Material Safety Data Sheet for suitable materials of construction, for handling, and storing of this product. Observe all safety precautions shown on the label and in the Material Safety Data Sheet

Health	**1**
Flammability	**1**
Reactivity	**0**
Personal Protection	**B**

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