

When The Going Gets Tough

The Tough **Go Further**

**DECREASED  
TOOL LIFE?**

**WORN  
MACHINERY?**

**DOWNTIME?**

Your Challenges. **Our Solutions.**

**INDUSTRIAL LUBRICANTS**



**Lubricants**

Fuels | Lubricants | Knowledge | Service





## WE USE THE LATEST TECHNOLOGY TO ENSURE THE HIGHEST QUALITY.

Our state-of-the-art lubricants manufacturing facility boasts the newest processes and most comprehensive testing capabilities as it continues to expand its technology to meet the exacting needs of our customers.

### ADVANCED TECHNOLOGY, PROVEN PERFORMANCE

- Diverse product line and premium performance
- Fluids analysis program for better predictability, protected uptime, and extended machine life
- Locally blended and backed through the GROWMARK\* Lubricants Manufacturing plant, an ISO 9001:2015 certified facility
- Equipment and product support, including coordination with preferred vendors

### STABILITY AND FLEXIBILITY

- Distribution and inventory management programs to fit individual customer needs
- Blended and backed by the GROWMARK System
- Stability in local people through FS, GROWMARK, and partnerships with local vendors

### TECHNICAL SUPPORT

- Access to GROWMARK Lubricants Technical Support for cross reference questions and identification of the right product for the right application
- FS Energy Sales Specialists who are always a phone call away
- Ongoing education and training

### TRUSTED PARTNER

- Extend machine life
- Improve inventory management
- Increase uptime and profitability

\* GROWMARK is a member-owned cooperative providing energy, agronomy, facility planning, and logistics products and services, as well as grain marketing and risk management services in more than 40 states and Ontario, Canada. GROWMARK owns the FS trademark, which is used by affiliated member cooperatives to serve more than 250,000 customers.

## HYDRAULIC OILS

### FS HD Hydraulic Oils

Blended with group II base oil and select additives, FS HD Hydraulic Oil provides excellent anti-wear protection, oxidation and corrosion inhibition, and foam and aeration suppression.

Meets or exceeds the requirements of:

- Vickers M-2950-S (mobile), I-286-S (industrial)
- Denison HF-0, HF-1, HF-2
- Cincinnati Machine P-68, P-70, P-69
- See product data sheet for a complete listing of all specifications
- Available in ISO 32, 46, and 68

### FS Industrial Hydraulic Oils

FS Industrial Hydraulic Oil provides excellent wear protection for both high- and low-pressure hydraulic systems in mobile and industrial equipment.

Meets or exceeds the requirements of:

- Vickers M-2950-S (mobile), I-286-S (industrial)
- Denison HF-0, HF-1, HF-2
- Cincinnati Machine P-68, P-70, P-69
- See product data sheet for a complete listing of all specifications
- Available in ISO 32, 46, 68, 100, and 150

### FS MV LS Hydraulic Oils

Formulated for continuous service over a wide range of temperatures, FS MV (multi-viscosity) Hydraulic LS (low shear) Oil is suitable for year-round use in mobile and industrial equipment.

Meets or exceeds the requirements of:

- Vickers M-2950-S (mobile), I-286-S (industrial)
- Denison HF-0, HF-1, HF-2
- Cincinnati Machine P-68, P-70, P-69
- See product data sheet for a complete listing of all specifications
- Available in ISO 32, 46, and 68

### FS MV Zinc-Free Hydraulic Oils

FS MV Zinc-Free Hydraulic Oil is formulated with zinc-free anti-wear technology to ensure exceptional performance. These oils meet the performance requirements of conventional anti-wear hydraulic oils in severe applications, while providing additional environmental safety in case of a leak or discharge.

### FS Synthetic Hydraulic Oils

Formulated for use in severe-service, low- and high-pressure, mobile or stationary hydraulic systems, this full synthetic hydraulic oil features outstanding thermal stability and cold-flow properties, along with a zinc-based anti-wear additive system to protect pumps against wear.

Meets or exceeds the requirements of:

- Denison HF-0, HF-1, and HF-2
- Eaton/Vickers M-2950-S and I-286-S
- DIN 51524, Part 2 & 3
- Available in ISO 22, 32, and 46

### FS Waylube

FS Waylube is formulated to provide extreme-pressure, anti-wear, tackiness, and good stick-slip friction characteristics as well as rust preventive properties as needed for the slides and ways of machine tools.

- Available in ISO 32, 68, 150, and 220



## TURBINE & SPINDLE OILS

### FS Turbine R&O Hydraulic Oils

FS Turbine R&O Hydraulic Oil is designed for use in applications that require protection against rust and oxidation but do not require anti-wear or extreme-pressure additives. This oil separates readily from water and is hydrolytically stable.

Meets or exceeds the requirements of:

- AFNOR E 48-600 HL
- API Service GL-1
- Denison HF-1
- US Steel 126
- Cincinnati Machine P-38, P-45, P-54, P-55, P-57, P-62
- See product data sheet for a complete listing of all specifications
- Available in ISO 32, 46, 68, 100, 150, 220, and 320

### FS Spindle Oils

FS Spindle Oil is a premium lubricant manufactured to provide excellent anti-wear protection and oxidation/corrosion inhibition for high-speed bearings. FS Spindle Oil may be used where R&O oils are required in their specified viscosity grades.

Meets or exceeds the requirements of:

- General Motors LS
- Cincinnati Machine P-45
- See product data sheet for a complete listing of all specifications
- Available in ISO 10 and 22

## GEAR OILS

### FS Industrial Gear Oils

Formulated with high-viscosity-index base oil and a premium sulfur/phosphorus extreme-pressure additive package, FS Industrial Gear Oil is well suited for operating conditions with heavy loads, high peak loads, or intermittent shock loads.

Meets or exceeds the requirements of:

- Cincinnati Machine P-63, P-76, P-77, P-74, P-59, P-35, P-78
- US Steel 224
- AGMA 9005-D94
- See product data sheet for a complete listing of all specifications
- Available in ISO 68, 100, 150, 220, 320, and 460

### FS Synthetic Industrial Gear Oils (EP)

Formulated with full synthetic base oil and thermally stable extreme-pressure (EP) additives, this oil is designed with a low pour point and resists heat and deposits for superior cleanliness. It also exhibits excellent seal compatibility and diminishes shock load through excellent wear protection.

Meets or exceeds the requirements of:

- US Steel 224
- AGMA 9005-E02
- DIN 51517 Part 3
- Cincinnati Machine
- See product data sheet for a complete listing of all specifications
- Available in ISO 150, 220, 320, and 460

## FS SYNTHETIC R&O, GEAR, BEARING, AND COMPRESSOR OILS

This high-quality, rust- and oxidation-inhibiting, synthetic oil is fortified with ashless anti-wear additives for excellent gear and bearing protection. It exhibits excellent cold-flow properties and resists high-temperature degradation.

### Hydraulic

- Denison HF-0, HF-1, and HF-2 (ISO 22 through 100)
- Vickers M-2950-S, I-286-S (ISO 22 through 100)
- US Steel 127 and 136
- Lee-Norse 100-1
- Jeffrey No. 87
- B.F. Goodrich 0152
- Commercial Hydraulics

### Cincinnati Machine

- ISO 32 (P-38 and P-68)
- ISO 46 (P-54 and P-70)
- ISO 68 (P-54 and P-69)

### Industrial Gear Reduction

- AGMA 0S-7S
- AGMA 0-8
- AGMA 7C-8C

## METALWORKING FLUIDS

### FS MULTICUT 851C2L

Contains Chlorine

FS MULTICUT 851C2L is formulated with a proprietary blend of high-quality base oil and additives designed to enhance metal removal operations. This product is used to perform operations such as sawing, drilling, tapping, boring, and machining.

### FS Kool Kut 122LF

Moderate Duty, Microemulsion/Semi Synthetic

FS Kool Kut 122LF is a good choice when operations require a strong, stable, clean, and moderate foaming semi synthetic coolant. It has the lubricity needed for great tool life and is simple to operate and maintain.

### FS Kool Kut 316

Extreme Duty, Microemulsion/High Oil

FS Kool Kut 316 is a very high-oil coolant for use in moderate to severe applications. It is unique in the market as it is exceptionally low foaming, thus providing great tool life with multiple metals, especially exotic alloys, aluminum, stainless steel, and titanium. The very tight emulsions also aid in biostability and low carry-off/consumption.

### FS Kool Kut 362LF

Microemulsion/Extremely Low Foaming

FS Kool Kut 362LF is an extremely low-foaming coolant formulated for aerospace or other applications needing a high-performance machining and grinding product. This coolant is very clean and biostable, provides excellent tool life benefits, and works well with multiple metals and aluminum. **NOT for use with cast iron.**

### FS Kool Kut 378LF

Heavy Duty, Microemulsion/Semi Synthetic

FS Kool Kut 378LF is a heavily formulated product for more severe metalworking applications. The product exhibits moderate foam control, good biostability, and good cleanliness characteristics. It is an excellent combination of economy and performance and works well on multiple metals.

### FS Kool Kut 610I

Moderate Duty, Synthetic Grinding Coolant

FS Kool Kut 610I is the perfect combination of lubricity additives and foam control, making for an excellent grinding coolant. The product especially excels in Blanchard grinding, rotary applications, and horizontal grinding.

### FS Kool Kut 925

Heavy Duty, Synthetic Coolant

FS Kool Kut 925 is a heavy-duty synthetic formulation containing unique lubricity additives. These chemistries provide superior tool life, rust protection, foam control, and fluid longevity. It is a good choice for a broad range of metals and plastics.

## GRINDING AND CUTTING OILS

### FS CG 5352R

General Purpose Cutting & Grinding Oil

FS CG 5352R is a clear, no-odor, low-misting oil formulated for use in many machining and grinding applications. It has gained a large following with the centerless grinding market and is capable of grinding various metals, diameters, and finishes.

### FS CG 5418

High-Speed Cutting Oil, Swiss-Style Machines

FS CG 5418 is the perfect blend of lubricity additives and extreme-pressure additives. This moderate-viscosity, clear, no-odor oil does an outstanding job producing precision, medical, and aerospace industry parts.

### FS Honing Oil #1

Honing Oil, Lubricity Additive

FS Honing Oil #1 is formulated to provide excellent lubricity and surface finish in all honing applications. Additionally, the product can be used to cut and grind stainless materials, and it may be added to other cutting oils to boost the lubricity. As the product is highly active, staining tests should be conducted prior to use around nonferrous metals.

### FS MGD 80

Gun Drilling Oil

FS MGD 80 is the perfect oil for deep hole drilling and gun drilling applications. The light viscosity, clear color, and extreme-pressure/anti-welding additives make it an excellent choice when drilling difficult materials.

### FS Quick Tap

Tapping Oil, Lubricity Additive

FS Quick Tap is a clear, heavy-viscosity, highly additized oil for use in tapping and threading applications. The product is odor free, low misting, and may be used to boost the performance of normal cutting and grinding oils should extra performance be needed. With agitation, the product may be added sump-side to other oils.



## CLEANERS

### FS KW 6030

FS KW 6030 is an aqueous cleaner designed for washing parts and can replace solvent-type cleaners. It is designed to remove tough oils and greases in a soaking bath.

### FS KW 7000

This quick-drying cleaner is made from renewable components, has a lower pH and toxicity profile, is readily biodegradable, and contains little to no VOCs. It has excelled in floor scrubbing and mopping applications, spot cleaning on machine and equipment exteriors, and pressure washing applications.



## RUST PREVENTATIVES

### FS CG 4221

Long-Term Indoor Rust Protection, Solvent Carrier

FS CG 4221 is formulated for 12+ months of indoor protection of all metal parts. It is excellent for dispersing water, produces a very light film, and is superior in providing a gum-free surface when protecting stacked or coiled pieces.

### FS CG 4696

Long-Term Indoor Rust Protection, Solvent Carrier

FS CG 4696 is formulated for up to 2 years of indoor protection, while also providing salt spray and acidic environment protection. This product meets or exceeds the current CAT and Komatsu specifications for rust protection and parts storage.

### FS CG 4245

Long-Term Indoor Rust Protection, Solvent Free (Oil Carrier)

FS CG 4245 is formulated for 12+ months of indoor storage and protection of all parts and metals. The product is solvent free, and the higher flash point enables its use in environments where lower flash points may be an issue.



#### **OTHER PRODUCTS AVAILABLE**

- Biocides/Coolant Treatment
- Degreasers
- Compressor Oil
- Grease
- FS MICROLUBE
- FS Synthetic Anti-Varnish MV Hydraulic



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