EXTEND EQUIPMENT LIFE. REDUCE MACHINERYDOWNTIME. IMPROVE PLANT PROFITABILITY.

Food-Grade

America's Finest Industrial and Food-Grade Lubricants



Worldwide food and beverage processing is a dynamic and constantly evolving mix of new processes, new equipment and new regulations. JAX has been at the forefront of food and beverage plant lubrication since the inception of true USDA food-grade lubricants over 60 years ago. JAX was first with a registered food-grade grease at the birth of commercial food-grade lubricants in our industry, and we continue to be first today with new product offerings for evermore demanding applications.

JAX is a manufacturer and global supplier of the highest quality industrial, synthetic and food-grade lubricants for machinery and processes, and has been the driving, innovative force in lubrication for food processors.

JAX, a wholly-owned American company, is a global player in food-grade lubrication with international distribution and offers the most technical expertise and experience in the industry. We are not a major oil company, a satellite division of a multinational owner, or a piece of a private equity portfolio. As an independent company, we have the freedom and autonomy to compound lubricants without compromising superior performance for price. From formulating new lubricants for unique new processes, to rushing emergency testing through our independent RPM Laboratory, it is the hundreds of little, and not-so-little things that separate JAX from other lubricant companies. Obviously, to enable us to do this, we seek to employ only dedicated people who provide real, hands-on assistance to our customers' businesses, management and machinery on a daily basis.

Why is this important to you? It means we are never distracted from our primary goal of bringing the newest tribology technology to your equipment and production lines, and we are dedicated to providing only America's Finest in terms of lubrication, support service and technical innovation.

Listed below are some recent highlights of state-of-the-art developments in food and beverage plant lubrication from JAX.

- JAX Pyro-Flow[®] FG ISO 46 is the industry's first and only NSF H1, FM Global Approved, fire-resistant, biodegradable synthetic ester fluid designed to provide outstanding antiwear performance in processing plant hydraulic and circulation systems.
- JAX Halo-Guard[®] FG Series are E.P., food machinery greases that usher in a new era of corrosion protection and remarkable extreme-pressure and antiwear capabilities in a plant-wide, food-grade grease.
- COMPRESYN[®] by JAX is a completely new line of FG-H1, 100[®] synthetic and partial synthetic compressor and vacuum pump fluids blended with innovative, patentpending formulation technologies for the food, drug and beverage packaging industries.
- JAX Angel-Guard[®] Fluids are 100[®] synthetic, food-grade lubricants dedped specifically for extended drain intervals in high-speed beverage can seamers, including those manufactured by Angelus Sanitary Can Machine Company.
- JAX Micronox[®] Technology is a groundbreaking advance in food-grade technology developed with unsurpassed performance in preserving and protecting food-grade lubricants from microbial contamination in meat and poultry plants worldwide.

If your company is looking for an experienced, hands-on partner to help gain control of your lubrication practices, programs and production, talk to us. Nobody knows your equipment, your industry and your applications better thanJAX! Nobody!



With a daily blending capacity of nearly 100,000 gallons in our ISO 21469-certified manufacturing plant, JAX serves a diverse group of food and beverage processors including:

- Bakeries
- Canneries
- Meat Packers
- Poultry Processors
- Beverage Plants
- Freezing Plants
- Dairies
- Pet Food Plants

and dozens more...



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Products are listed separately as Food-Grade (H1) and Industrial-Grade (H2) and further divided into Greases and Fluids. Common application and usage charts are shown in each section.

There are also brief "Technical Highlights" sections, with useful charts and answers to some of the most commonly asked questions in the lubricant business.



EXPERIENCE COUNTS

When we say that JAX was there at the inception of food-grade lubricants, it helps to get some perspective on where the industry has been, and where it may be headed in the future.

Recent entries into the field of food plant lubrication may talk a good game, but JAX hands-on development experience for over 60 years in the U.S. and on the international stage is significant. This extensive experience cannot be overcome by competitors' flashy advertising, limited experience and untested product quality.

Until the early 1960's, lubrication of machinery in most food and beverage plant operations was not any different from typical industrial plants. FDA-approved white oils were available for process use, but the limited lubrication value and added expense of these base oils made them unsuitable for all but the simplest machinery lubrication.

At that time, the USDA developed a program which utilized approved products from the developing FDA regulations regarding ingredients for lubricants with possible exposure to processed products. Although the USDA's jurisdiction for inspection and control was primarily over meat, poultry and egg plants, the list they were developing would, over the next three decades, become the U.S. and in many instances the worldwide standard for non-food compounds used in processing plants.

The first classifications of lubricants were AA, for use in possible incidental contact situations, and BB for non-food contact areas. There was also a "knock-out" list of chemicals that could not appear in any non-food compounds. The presence of these components would immediately disqualify a product for use in any inspected facility.

The very first branded approval of a USDA food-grade grease, JAX Magna-Plate[®] 8, was developed by JAX for the prosperous and growing U.S. meatpacking industry.

Although rapid adoption of these lubricants was mandated in USDA-inspected plants of the day, other processing industries outside of the authority of the USDA were not so quick to incorporate these new lubricants. In many cases, there were good reasons. The ingredient and additive technologies were not well equipped to handle applications beyond those that were very basic. Factor in typical sanitation procedures, and it was evident that to gain acceptance of these lubricants, improvements would have to be made in areas of wear protection, corrosion resistance and stability.

Early in the 1970s, the USDA designations were changed from AA to H1 and from BB to H2. The H3 designation was added for soluble oil applications and a 3H designation was later added for release agents, GRAS ingredients and ingestible pharmaceutical-grade white oils.

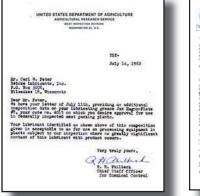
JAX had already researched, pioneered and improved food-grade greases and fluids to address increasingly complicated applications, machinery and processes. An ever-growing group of companies was now using JAX FG lubes to protect their equipment and products with H1-rated lubricants, whether or not their facilities were USDA inspected.

USDA decided to discontinue their formal approval process of non-food compounds in 1998, for reasons not fully explained other than budgetary. The new HACCP requirements for food plants placed the burden of responsibility **directly on the processors and their suppliers** for ensuring that the products are in conformance with the FDA/USDA guidelines used for the previous 30+ years.

Although the existing approvals would not expire, newly developed products and technologies would need to undergo an approval process as well. JAX immediately incorporated our internal FG approval process and self-certification, which identically followed FDA/USDA ingredient and labeling procedures standardized under the now-defunct testing program of the USDA. JAX classified lubricants as FG those which had and would meet the FDA requirements for USDA H1 approval (FDA 21 CFR 178.3570).

Since then, several independent nongovernmental agencies have offered certification procedures similar to those incorporated by USDA or JAX internal process. NSF has become a readily accessible source for product review and approval, and new ISO standards are being developed to incorporate the review process as well. JAX is consistently staying at the forefront of the regulatory changes that may affect the future of our industry.

LETTERS OF APPROVAL



NSE	NSF International/ Nonfood Compounds Registration Program
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No. Patry Rick	
PRESSURE LED	
WD4NS973CA	APRELL DRIVE ALLS WESTIG
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NH Registra	ion No. 139873
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Registration Gas	d obspace of the Registerious of JAX BPTO BC CENATYPEH BELEARE in the Net between distance for Proprietary Softwares and Neukola Compares in 2015, which we would be at <u>any</u> . The NMP Neukola Compares in a constraint of the USDA product in generative relations which is based on energies regulatory engineerisms including PDA 25 CDE for appropriate lifeting ensure.
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JAX provides official certification of food-grade products as FG/H1

JAX received the first USDA approval in 1962 for JAX Magna-Plate®8

JAX now has over 200 NSF-registered products

FOOD & BEVERAGE SOLUTIONS

JAX offers a myriad of solutions including turnkey whole-plant services, laboratory proactive maintenance testing, new product research, lube school seminars, innovative packaging solutions and the highest quality, technically proficient distributor network in the lubricants industry. We maintain strong OEM contacts in the processing industry, enabling JAX to understand the technical requirements of this diverse machinery.

Virtually every member of Food Processing's Top 100 is taking advantage of JAX products or services. Many have streamlined and optimized their lubrication programs by converting entire plant operations.

If your company is looking for an experienced, hands-on partner to help get control of your lubrication practices, programs and downtime, talk to us. Nobody knows your equipment, your industry and your applications better than JAX.

- Technical Consulting
- Worldwide Distribution Network
- HACCP Analysis
- USDA, CFIA, NSF, Halal, Kosher
- JAX FG Cert / FDA and ISO Compliant
- In-Plant Engineering Services

- Complete New Plant Start-Up Programs
- Lube-It Lubrication Software
- RPM Laboratory Rapid Response
- Xact® Fluid Automated Lubrication Systems
- High-Volume Production Capabilities
- Custom Product Application R&D

A RELATIONSHIPS AND SUCCESSES

JAX has engineered custom lubrication solutions used in, recommended for, or approved by today's finest OEMs.

- Angelus
- APV[®]
- JBT
- Tetra-Pak
- Best & Donovan
- Ferrum • H & K®
- Barry-Wehmiller
- Cryovac[®]
- Atlas Pacific
- Waukesha
- Elmar®
- Meyn
- Baloor

- Frigoscandia
- Stewart Systems
- Odenberg
- Stork[®]
- Jarvis
- Beach-Russ
- Stock
- CCM
- Bettcher
- Andritz
 - AEW-Thurne
 - Boston

- Bosch Rexroth Racine Pump
- Busch
- CPM
- Formax[®]
- Continental
- Magnuson
- Dupps
- Ryson

- Buhler
- Simonazzi

- Levbold
- Matador

- Frick[®]
- Vilter[®]
- Mycom
- IJ White
- Weiler®
- Key[®]
 - Lyco
- Kinney
 - BMA
 - Westfalia Bee Hive
- Harrington
- Urschel[®]
- Alfa Laval
- Bonfiglioli • Hub City

Marlen

Reiser

- Eurodrive
- Sumitomo
- Dodge
- Falk

- Krones
- AROL
- Multivac Poly-Clip[®]

FOOD-GRADE GREASES



Halo-Guard[®] FG Series FG-00, FG-LT, FG-2, FG-PM

This series of revolutionary food-grade greases is manufactured with proprietary antiwear chemistry that improves performance over all competitive CSC greases. A newly enhanced calcium sulfonate complex thickener provides exceptional mechanical stability, very high load-carrying (E.P.) ability and remarkable rust and corrosion control. In addition, JAX Halo-Guard FG has excellent water resistance and outstanding high-temperature performance abilities. This technology is combined with a new high viscosity, partial synthetic food-grade base fluid to make JAX Halo-Guard FG the most effective food-grade grease for heavily-loaded applications. This is a true high-performance, plant-wide food-grade grease. Note: NZ (Non-Zinc) versions NZ-2 and NZ-LT available upon request.

Poly-Guard[™] FG Series FG-LT, FG-2

The ultimate in food machinery lubrication where high temperatures coupled with high bearing speeds and loads have caused premature wear to lubricated parts. Poly-Guard FG provides the highest level of antiwear performance in an NSF H1 grease, and incorporates Micronox[®] technology. Poly-Guard FG-LT grade yields excellent performance in automated centralized lubrication systems. Excellent versatility and high-temperature performance make this a true plant-wide grease.

Magna-Plate® 8

This is a general-purpose NLGI #2 food-grade grease. It has excellent water resistance and lubrication qualities. Good oil bleed characteristics at low ambient temperatures make it ideal for small, high-speed bearings.

Magna-Plate[®] 22

Extreme Low Temperature

This unique 100 $\mbox{?}$ synthetic grease is formulated for freezers and other applications whee temperatures can approach –50°F (-46°C) and lower. It possesses excellent wear and rust protection in an extremely pumpable grease.

Magna-Plate[®] 44 Series 44-0, 44-1, 44-2

JAX Magna-Plate 44 series are high-performance food-grade greases formulated for broad use in all food and beverage processing environments. Enhanced antiwear protection and pumpability with low bleed and separation characteristics make 44-0 and 44-1 ideal for all centralized greasing applications requiring food-grade greases. A high degree of water resistance, oxidation stability and antiwear protection allow this food-grade grease to perform in areas thought to be unacceptable for ordinary food-grade greases.

Clear-Guard FG-2

This translucent grease is compounded with a special high-temperature polymer that will cling to metal surfaces under the most severe conditions. Water, salts, heat and chemicals will not affect performance, and it resists sling and channeling under high-speed or high-temperature conditions.





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100% Synthetic [

Oven Ice FG-2

100% Synthetic 🚇

100% Synthetic 📧

A 100[®] synthetic PAO-based grease with an inorganic thickener system for extreme high-temp and moderate low-temp conditions. Oven Ice FG-2 is crystal clear and meets the requirements of NSF H1 and FDA 21 CFR 178.3570.

Gear-Guard® FG

Food Plant Open Gears

This is a 100[®] synthetic, E.P., NSF H1 food-grade open gear grease which provides the adhesion, water resistance and load-carrying properties of the best non-food-grade open gear lubes. Gear-Guard FG provides incredible "stay-put" performance in all food plant open gear applications.

Pyro-Plate TFS

100% Synthetic 📧

This 100th synthetic lubricating grease provides outstanding EPDM elastomer compatibility while enhancing the performance and reliability of valves and fittings utilized in the beverage industry.

Pyro-Plate PFP

100% Synthetic 🔨

Formulated using PFPE base oil with a PTFE thickener system, this grease provides long-term stability and thermal and oxidative resistance.

Pyro-Plate FGN-2

100% Synthetic

A 100® synthetic, PAO-based grease with a Calcium Sulfonate thickener. JAX Pyro-Plate FGN-2 provides ultimate rust and corrosion protection, extreme-pressure and antiwear characteristics, and outstanding thermal stability for extreme temperatures and heavily loaded applications. Meets the requirements of NSF H1 and FDA 21 CFR 178.3570.

FOOD-GRADE GREASES USAGE CHART

	General Greasing	Closers & Fillers	Conveyor Bearings	High Temp> 300°F (149°C)	Low Temp < 40°F (4°C)	Freezers to -60°F (-51°C)	Automated Lube System	Meat Saws & Knives	Wet Environments	Corrosive Environments	Open Gears	Valves & Rotary Unions
Halo-Guard [®] FG Series			•		•		LT OO			•	•	
Poly-Guard™ FG Series	٠	٠	٠	٠	•		LT	•		•		
Magna-Plate [®] 8					٠			٠				
Magna-Plate [®] 22												
Magna-Plate [®] 44 Series	٠	٠	٠	٠	•		-1 -0	٠		•		
Clear-Guard FG	•	•	•					•	•			
Oven Ice FG-2				٠								
Gear-Guard [®] FG				٠						•	٠	
Pyro-Plate TFS												•
Pyro-Plate PFP												
Pyro-Plate FGN-2			•								•	

Primary Recommendations

Closing Machines/Seamers

- Lower gun pressures will help to remove more contamination since new grease will force out contaminated grease without flowing around it as easily.
- Cover feed cam life can be increased with a small drip feed or spray system using Magna-Plate 78.
- Generally speaking, the higher the bearing speeds or the lower the temperature, the lighter the grease has to be in order to provide proper oil flow or good lubrication.

OOD-GRADE FLUIDS



Magna-Plate[®] 60, 62, 64, 66 ISO 32, 46, 68, 100

America's Finest Food-Grade Hydraulic Fluids can be used in a variety of applications where an NSF H1 fluid is required. They are food-grade, Group II white mineral base oils containing rust and oxidation additives and excellent antiwear protection. They are fully tested and OEM-approved for hydraulic systems, and are recommended for compressors and gear systems requiring food-grade oils.

Magna-Plate® 72, 74 **Food Plant Air Line Lubrication**

Magna-Plate 72 and 74 are low viscosity air line oils with rust inhibitor for use in all airoperated equipment. Magna-Plate 74 contains an effective antiwear additive, additional rust inhibitors, and a high percentage of emulsifiers to pick up and exhaust tramp moisture in the air lines. Contains Micronox®.

Magna-Plate[®] 76, 78, 78E

These fluids are heavy, tackified, E.P. food-grade oils for superb wear protection on overhead chains and conveyors, drip systems, can lid cams, or anywhere a positive antiwear NSF H1-approved lubricant film is needed. Magna-Plate 76 is recommended for automatic oiling systems. Magna-Plate 78 and 78E (Emulsified) provide excellent antiwear performance in Angelus Can Seamers.

Magna-Plate[®] 80, 86, 88 **Extreme Low Temperature**

These synthetic fluids are formulated with antiwear, rust inhibitor and "non-drip" additives for freezer chain and conveyor lubrication. The base fluids are food-grade synthetic oils with pour points as low as -90°F (-68°C). These fluids have excellent penetration properties.

Pyro-Kote[®] FG Series ISO 68, 220, CST 350 100% Synthetic 🔨 **High-Temp Oven Chains**

Formulated for food-grade applications, these synthetic high-temperature lubricating oils provide exceptional antiwear performance while incorporating the highest quality synthetic base fluids to maximize useful life at elevated temperatures. These oils are the first FG-H1, FDA-gualified, super-clean synthetic fluids for bakery oven conveyors and chains, or wherever a lubricant with exceptional high-temperature performance is required.

Proofer Chain Oil

(FG) JAX Proofer Chain Oil is the first and best lubricant of its kind. The unique formulation is specially compounded for lubrication in high humidity environments. It is formulated to provide extremely high performance, eliminating corrosion on bakery proofer chains and other food-processing equipment.

Angel-Guard[®] Fluid 150D, 100D, E, E-LT

State-of-the-art, 100 synthetic, food-grade antiwear fluids compounded to provide the ultimate in wear and corrosion protection. JAX Angel-Guard fluids provide long drain performance in recirculating systems and include JAX complimentary, ongoing RPM Oil Analysis services. Formulated specially for high-speed beverage can seamers including those manufactured by Angelus Sanitary Can Machine Company.





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100% Synthetic 😭

Flow-Guard Synthetic Fluids ISO 15, 22, 32, 46, 68, 100, 150, 220, 320, 460, 680

For use in industrial hydraulic, gear drive and other lubricated machinery, this series of fluids is compounded to provide superior performance, minimize component wear and eliminate system downtime.

Magna-Plate® FG ISO Gear Oils ISO 220FG, 320FG, 460FG

These gear oils are semi-synthetic, white oil-based with sheer stable V.I. modifiers. As a result, they can be used in gearbox applications previously thought to be too severe for food-grade lubricants. The superior operating characteristics provide reduced operation temperatures, reduced friction, and minimal gear wear. The high film strength offers excellent lubricity for spur, helical, spiral, bevel, planetary and worm gears. Contains Micronox®. Also available: Magna-Plate 320FG-HG3 upon request.

Perma-Gear FG Fluids ISO 150, 220, 320, 460, 680

JAX Perma-Gear FG Fluids incorporate the latest developments in 1002 synthetic food plant lubrication technology. The base fluids used are linear polymers of ethylene and propylene oxide, commonly known as Polyalkylene Glycols. These fluids exhibit extremely high viscosity indices, improved lubricity and provide meaningful energy savings in gearbox applications.

FGH-AW Series Hydraulic Oils ISO 32, 46, 68, 100

These compounded food-grade hydraulic oils were developed to satisfy several lubrication requirements in modern food-processing environments. These oils contain an effective combination of antiwear agents and rust inhibitors that provide performance advantages over non-compounded white oils. Will extend the life and lubrication intervals of costly equipment.

FGG-AW Series Gear Oils ISO 150, 220, 320, 460

These food-grade gear oils are compounded with advanced additive technologies to provide superior performance over competitive food-grade gear oils. They contain proprietary, optimized combinations of antiwear agents, rust inhibitors, and polymeric viscosity improvers that provide outstanding long-term wear advantages, while their robust antioxidant chemistry ensures deposit-free operation.

Cvlinder Oil-FG

This state-of-the-art worm gear oil incorporates the latest developments in foodgrade lubrication technology. With reduced operating temperatures, reduced friction and minimal gear wear, it can be used in gearbox applications previously thought too severe for food-grade lubricants.

Unitran[®] FG

Unitran FG is the next generation NSF H1 food-grade hydraulic/power transmission fluid designed for use in a wide range of power-drive, farm and orchard equipment, such as grape and cranberry harvesters. Unitran FG provides enhanced performance for wear, chatter, brake capacity, PTO performance and filterability in a variety of transmission and hydraulic applications.

Magna-Plate® 2000FG

An NSF H1 food-grade lubricating oil for use in JBT continuous cookers and JBT and Odenberg steam peelers. Eliminates rubbery deposits, clogged lines and gummed check valves. A special polymer helps Magna-Plate 2000FG cling to metal surfaces even after shutdown, reducing metal-to-metal contact on start-up.

Semi-Synthetic



Semi-Synthetic











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Conveyor Glide Series XLT, Light, Medium, Heavy

NSF H1, food-grade trolley lubricants formulated to provide the benefits most desired in packing-plant trolley lubrication. Compounded with FDA-approved white oils, polymeric additives and fatty acids, they provide unsurpassed lubricity, rust protection, and non-drip characteristics. Conveyor Glide reacts synergistically with wash-down compounds to aid in removing old oil, dirt, animal hair and fats. These fluids also incorporate Micronox[®].

Trolley-Glide FG-3H

Premium NSF 3H-registered direct contact trolley lubricant that is compounded exclusively from carefully selected base oils and additives. This lubricant provides the ultimate in conveyor performance and cleanliness. Also available in XLT and HVY.

Pyro-Flow[®] FG ISO 46

JAX Pyro-Flow FG ISO 46 is a biodegradable, fire-resistant, food-grade synthetic lubricant designed to provide outstanding performance in hydraulic and circulation systems.

Magna-Kote[®] 467 FG

This metal-forming lubricant has exceptional metal-wetting characteristic and provides improved finish, minimizing burning and preventing loading of forming components. Developed specifically for use in can-beading and can-flanging machines, it meets the demanding lubrication requirements of all types of can-manufacturing equipment wherever an NSF-H1 registered lubricant is required.

Agua-Guard FG

Aqua-Guard FG is a state-of-the-art metal-forming lubricant incorporating the latest developments in food-grade lubrication technology. It is specially formulated and tested for use in Crown Presses for manufacturing sanitary ends. It also has been used in canbeading and can-flanging machines, and other can-forming equipment.

Packer Oil 22

JAX Packer Oil 22 is an advanced food plant spray-down oil incorporating JAX exclusive Micronox[®] technology.

White Mineral Oil

ISO 15, 22, 32, 46, 68, 100

These oxidation-inhibited mineral oils are for use in all areas of lubrication and oil spraydown where direct or incidental contact with a food, drug, cosmetic or beverage product is possible. Use JAX White Mineral Oil ISO 22 for Packer's Tech Oil applications.

Grinder-Glide FG-3H

JAX Grinder-Glide FG-3H provides a direct food-contact lubricant that has unmatched rust and corrosion protection as well as the load-carrying and lubricity properties necessary to eliminate dry start-ups.

This state-of-the-art lubricating oil uses the latest developments in food-grade technology, and provides a protective film on all metal surfaces, even in extreme water wash-down environments. Contains Micronox® to provide antimicrobial protection for the product.

Paper Cup Curl Oil ISO 32

JAX Paper Cup Curl Oil ISO 32 is compounded specifically for use in the curling operation of paper cup manufacturing machines.









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FOOD-GRADE FLUIDS USAGE CHART

	General Oiling	Hydraulic Systems	Compressors	Gearboxes	Drip Feed Oilers	Air Lines	Chains < 200°F (93°C)	Chains up to 600°F (316°C)	Freezers to -70°F (-57°C)	Vacuum Pumps	Angelus Seamers	Trolley Systems	Spray-Down Oil	Rotary Cookers & Peelers	Can-Forming	Box Slides
Magna-Plate® 60, 62, 64, 66	•	•	•		•	•				•						
Magna-Plate [®] 72, 74	•				•	•							•			
Magna-Plate [®] 78, 78E				•												
Magna-Plate [®] 80, 86, 88				•			•		•							
Pyro-Kote® FG Fluids																
Proofer Chain Oil	•											•				
Angel-Guard [®] Fluids			•	•						•						
Flow-Guard Fluids				•	•	•	•		•	•						
Magna-Plate® FG ISO					•		•									
Perma-Gear FG Oils				•	•		•	•								
FGH-AW Series Hyd. Oils		•	•			•	•									
FGG-AW Series Gear Oils				•												
Cylinder Oil-FG																
Unitran [®] FG																
Magna-Plate® 2000FG														٠		
Conveyor Glide Series																
Trolley-Glide FG-3H																
Pyro-Flow [®] FG ISO 46																
Magna-Kote [®] 467 FG																
Aqua-Guard FG																
Packer Oil 22	•					•	•									
White Mineral Oils					•	•										
Dry-Glide [®]																•

Primary Recommendations

Hydraulic Systems

• KEEP IT CLEAN, KEEP IT DRY, AND KEEP IT COOL

Gearboxes

- Typically the most ignored lube point in a plant. Usually they aren't noticed until they fail. Because gearboxes are fairly trouble-free, they should rarely fail if properly maintained.
- Use the proper fluid for the loads, temperatures and gear type, and change the gear oil at regular intervals. Monitor critical boxes using a routine oil analysis program.

FOOD AND BEVERAGE PLANT COMPRESSOR FLUIDS



www.compresyn.com

COMPRESYN® by JAX is a completely new line of FG-H1 100% synthetic and partial synthetic compressor and vacuum pump fluids blended with innovative, patented and patent-pending formulation technologies for the food, drug and beverage packaging industries. These fluids provide equal or superior performance to comparable industrial-grade compressor oils.

COMPRESYN® 550 Series Fluids

100% Synthetic 📧

100% Synthetic (FG)

FG)

FG

Patent-pending, 1000 synthetic PAG-Ester Air Compressor Fluid for simple, drop-in replacement of similar non food-grade type fluids (ISO 32, 46).

COMPRESYN[®] 545 Series Fluids

Patent-pending, revolutionary FG-H1 1002 Tri-Synthetic fluids for extended, long drain performance in compressor and vacuum pump applications (ISO 46, 68, 100).

COMPRESYN® 405 Series Fluids

Food-Grade, 1000 synthetic PAO-based compressor/vacuum pump fluids with high temperature and extended drain capabilities (ISO 32 through 150).

COMPRESYN® 250 Series Fluids

Patent-pending, FG-H1 partial synthetic-based compressor/vacuum pump fluids with new, advanced technology food-grade synthetic component for cleanliness and long drain capabilities (ISO 46, 100).

COMPRESYN® NH3-ISO 68

Compresyn NH3 is a novel, new, patent-pending, partial synthetic, naphtheniccompatible ammonia refrigeration compressor oil formulated for extended life performance in all systems currently using naphthenic-based refrigeration oils.

COMPRESYN® Flush Fluid C-46 and V-100

Compresyn Flush Fluid C-46 and V-100 are fully formulated compressor and vacuum pump lubricants containing synthetic base fluids and a highly dispersant additive system specifically designed to remove varnish, sludge and carbon deposits.

INDUSTRIAL-GRADE FLUIDS



GEAR OILS:

We have an industrial gear oil to match any application.

- Multi-Purpose Gear Oils (H2) SAE 85W90, 85W140
- H-P Industrial Gear Oils (H2) ISO Grades 68-680
- Magna-Plate[®] Gear Oils (H2) 90, 140, 90MV, 140MV
- Syngear Industrial Gear Oils (H2, 100% Synthetic) ISO Grades 22-680
- Synax EP Gear Oils (H2, 100% Synthetic) ISO Grades 150-680
- Perma-Gear Synthetic Fluids (H2, 100% Synthetic) ISO Grades 100-680
- Syngear-GL Gear Oils (H2, 100% Synthetic) SAE 75W90, 80W140

HYDRAULIC FLUIDS:

Our hydraulic oils are compounded for years of trouble-free hydraulic system performance.

- Premium Hydraulic Oils (H2) ISO 22, 32, 46, 68, 100, 150
- Premium Hydraulic Oil-Type Z (H2) HVI-Multi-Grade
- Hydra-Plate® Fluids (H2) ISO Grades 22-460
- Hydra-Plate® Fluid-MV (H2) HVI-Multi-Grade

CHAIN & CONVEYOR LUBES:

JAX offers a very diverse and complete line of Conveyor Lubes, including E.P. antiwear oils with moly, dry film moly and graphite lubes.

- Magna-Plate® 200 (H2) ISO 46, 150
- Magna-Plate® 200 NM (H2) ISO 22, 46, 100
- Conveyor-Guard ISO (H2) 68/100
- Magna-Kote[®] 412, 412 Plus, S3D, MLD (H2)
- Super-Cling Chain Oil with PTFE (H2) ISO 680/1000
- Pyro-Kote® Series Oils (H2, 100% Synthetic) ISO 32, 68, 220

COMPRESSOR FLUIDS:

100² synthetic air compressor fluids for severe operating environments:

- Compresyn® PLD (100% Synthetic PAO-Ester Blend) ISO 32-150
- Compresyn[®] DSR (H2, 100% Synthetic Diester-Based) ISO 32-100
- Compresyn[®] PGE (100% Synthetic PAG-POE Blend)
- Cryoguard[®] Plus Fluids (H2 Ammonia Refrigeration) ISO 32, 68
- Syntec Ammonia Compressor Oil (H2, 100% Synthetic) ISO 32, 68

Vacuum Pump Fluid:

• Premium R-P Oil HT (H2)

SPECIALTY LUBES:

Premium Peeler Oil

This oil is blended for use in fruit peeler oil reservoirs. A high degree of rust and wear protection combined with good demulsibility properties allows easier draining of water and contaminants. (ISO 46, 100)

Unitran® Fluid HD

Unitran Fluid is a new-generation, premium hydraulic transmission fluid that meets and exceeds the requirements for farm and industrial tractor power train fluid. It is compatible with all of the known brands of universal tractor fluid so it can be used to top off fluids in service. Also available as Unitran Fluid HD (Red) and Unitran Fluid HD (Filtered).

Magna-Plate® 2000

This is a high viscosity cooker oil with polymer tac additive, emulsifying agent, and a high percentage of antiwear additives. It is specially compounded for JBT continuous cookers/sterilizers and steam peelers with manzel box lubricators.

Magna-Plate[®] 2100

The next generation of cooker oils, Magna-Plate 2100 is a high-temperature, non-zinc JBT-approved rotary cooker/sterilizer oil. Benefits include greatly reduced wear and corrosion deposits on bronze packing strips.

 Attemperatures which can cause oils to flash off, carbon residue can be a real problem. An ashless fluid like JAX Perma-Gear FG or Pyro-Kote Series can help without causing the buildup of graphite dry-film lubes.

Н2

12



Continuous Cookers / Sterilizers

[•] Some oils can cause the pumps, lines and check valves to become clogged. Make sure they are clear. When setting oil flow using Magna-Plate 2000, try starting with the pumps wide open; if oil gets on the cans, dial back until no oil appears. This should provide maxiumum lubrication protection and extend valve life dramatically.

High-Temperature Chains

INDUSTRIAL-GRADE GREASES



Magna-Plate[®] 300 (with moly)

This high-temperature grease features enhanced oxidation and antiwear properties. It will outperform all conventionally thickened greases that are exposed to high temperatures for extended periods. This dramatically reduces caking and carbonized deposits. The high percentage of suspension-grade moly and graphite in JAX Magna-Plate 300 produces a high degree of solid particle orientation on the lubricated surface, providing a low initial friction and real and constant lubrication.

Magna-Plate® 500-0, 500-1, 500-2

By applying advances in the technology of water resistance, JAX has formulated one of the world's most water-resistant greases. It is an excellent general plant grease for wear protection, rust and water problems, and multipurpose applications. Magna-Plate 500 is known throughout the industry for outstanding performance. Now available in NLGI #0 grade so that fully automated centralized greasing systems can take advantage of this remarkable technology.

Magna-Plate[®] 700-2, Dredge-Guard 1 and 2 H2

These water-resistant greases have been formulated to address the specific needs of the fresh and saltwater dredging industry. They provide unsurpassed resistance to water washout, corrosion protection in saltwater or seawater and high load-carrying protection.

Magna-Plate® 1000-1, 1000-2

These are the best multipurpose greases available for plant equipment and vehicles with high temperature requirements. Formulated from the finest raw materials and advanced E.P. additive technology, they will withstand temperatures at or near the drop point without caking or oxidizing for far longer than greases of any other base type.

Magna-Plate® 1100

High-performance specialized grease for areas of high salt and process chemical contamination. Patented corrosion control formulation defies rust formation while providing excellent antiwear performance. Superior water resistance, an extremely high dropping point, excellent compatibility with other greases and outstanding corrosion control also make it an ideal grease for general plantwide grease lubrication. Also available in Magna-Plate 1100-HD Formulation; minimum quantities apply.

Magna-Plate® 1200

A fully synthetic grease for temperatures up to and exceeding 600°F (316°C). This thermally stable product is formulated with costly synthetic esters and a proprietary base soap to provide excellent oxidation stability and lubrication properties for extended periods and at extremely high temperatures.

Poly-Plate® EP-0, EP-2

This is a high-temperature, "sealed-for-life" grease made with a non-metallic thickener. Excellent compatibility with most elastomers and other greases. Poly-Plate EP exhibits low oil bleed, high E.P. properties and excellent shear and oxidation stability. Also highly recommended for electric motor bearing applications.

Pyro-Plate EPN-2

This high-temperature, synthetic grease combines 100² high viscosity synthetic base oils with a proven high-temp thickener for outstanding performance in severe applications that may encounter heavy loads and infrequent relubrication. Numerous difficult industrial and automotive applications can be solved with JAX Pyro-Plate EPN-2 grease.

100% Synthetic H2

H2

Robo-Guard 00

JAX Robo-Guard is a high-performance grease specifically designed for industrial robotic applications. It is manufactured with an advanced proprietary thickener system and carefully selected additive package which provides exceptional mechanical stability, very high load-carrying ability and remarkable rust and corrosion control.

Gear-Guard® Synthetic

100 Synthetic open gear lubricant that provides unsurpassed performance in severe applications. Excellent water resistance, extreme-pressure capabilities, film adhesion and wear protection. Ultimate "stay-put" performance.

Hydro-Guard RCG

A specially formulated water-resistant grease solubilized in a non-flammable highevaporation rate solvent. It is formulated for applications where conventional lubricating greases are difficult to apply, and light viscosity liquid is required for proper penetration, such as retort cart wheel bearings.

Hydro-Chain Grease

JAX Hydro-Chain Grease is a specially formulated water-resistant grease made to withstand the steam, water and high loads found in hydrostatic cooker chain applications.

INDUSTRIAL GREASES USAGE CHART

	eneral Greasing	Closers & Fillers	Conveyor Bearings	High Temp > 300°F (149°C)	Ext. High Temp> 450°F (232°C)	Automated Lube System	Open Gears	Wet Environments	Corrosive Environments	Electric Motor Bearings	Retort Cart Bearings	Robot Gear Cases
Magna-Plate [®] 300		•	•					•	•			
Magna-Plate [®] 500-0, 500-1, 500-2		•	•				-1 -0					
Magna-Plate [®] 700, Dredge-Guard	•							٠	•			
Magna-Plate® 1000-1, 1000-2	٠	٠	٠	٠	•	-1		٠	•	•		
Magna-Plate® 1100	٠	٠	٠	٠	•			٠	٠	•		
Magna-Plate [®] 1200				٠								
Poly-Plate® EP-0, EP-2			•			-0						
Pyro-Plate EPN-2					•			٠	٠			
Robo-Guard 00												•
Gear-Guard [®] Synthetic												
Hydro-Guard RCG												
Hydro-Chain Grease			•									

Primary Recommendations

General Greasing

- Alwaystry to do your greasing immediately after washdown. This will force the water and caustic soaps out of the bearing before they get a chance to pit and corrode during shutdown.
- Notall greases are compatible. There may be a temporary phenomenon when switching from one grease to another called incompatibility. The problem can range from a mild softening, to greases literally running out of the bearings. As the old grease is flushed out, the problem will correct itself. Refer to the Compatibility Chart in this book, or contact your JAX representative if in doubt about grease compatibility.

100% Synthetic H2

100% Synthetic H2

H2

JAX MICRONOX[®] TECHNOLOGY

JAX USDA/NSF-registered H1 lubricants incorporate our proprietary, registered, antimicrobial preservative, Micronox, for the protection of lubricants from microbial contamination or degradation. Micronox is a broad-spectrum antimicrobial that is authorized by the FDA under 21 CFR 178.3570 for use in "Lubricants with Incidental Food Contact".

Independently field-tested by JAX, this groundbreaking advance can protect lubricants with Micronox from being a potential source of microbial contamination.

Micronox exhibits antimicrobial activity to protect the lubricant against bacteria, yeasts, and molds. Micronox is stable and retains its antimicrobial activity in acidic, neutral and alkaline media, and in the presence of proteins, fats and oils, protecting the lubricant from contamination by foodborne microorganisms and inhibiting contamination and degradation of the lubricant.

Given the concerns over public health claims being made in the industry today, please understand: while Micronox provides protection to the lubricant from contamination or degradation by foodborne bacteria, it does not protect users or others against these bacteria.

RPM LABORATORY DIVISION

RESEARCH & PRODUCT DEVELOPMENT

Our 60-plus year commitment to R&D brings continuously improved products and new technology to market. Our expert chemists, engineers, and lab technicians work tirelessly with customers and industry leaders on product development, predictive maintenance, and used oil analysis. Our flexibility, dedication to continuing education and response time set us apart from the competition.



QUALITY CONTROL

JAX has built a reputation as a worldwide supplier of high-quality, state-of-the-art lubricants. Through the use of the latest lab equipment technology, all raw materials and finished products undergo a complex series of quality control tests to ensure they meet only the highest industry standards.

EXPERT USED OIL ANALYSIS

JAX/RPM Laboratory Division brings innovations and experience to used oil analysis that few, if any, can rival. Testing is performed to ASTM standards by highly qualified technicians using our state-ofthe-art equipment that includes the DCP spectrometer, FTIR Analyzer, Kinematic Viscometers, Karl-Fischer Titrator and particle counter, to name a few. We provide accurate and dependable results. This laboratory is located in our state-of-the-art 1800-square-foot research center within our corporate headquarters.

The used oil analysis program at JAX/RPM provides an invaluable tool for extending your equipment and lubricant life. Our color-coded reports make any deviations from machine or lubricant norms easy to spot. A relevant comment section may help direct maintenance personnel to the source of potential problems. Trial Sample Kits are available upon request.

Industry and OEM recognition does not come without JAX having done the groundbreaking development work on advances in food machinery lubrication. Listed here are a few of the innovations that JAX has brought to the industry.



Top left: First food-grade and non-zinc cooker oils

Bottom left: First food-grade antiwear oil for high-speed fillers and seamers

Bottom right: Industry-leading synthetic oven chain oils

JAX FOOD INDUSTRY FIRSTS

- The first Extreme-Pressure, antiwear, food-grade lubricants for chains and conveyors in meatpacking and other food plants.
- The first 1002 synthetic, food-grade grease for use in freezing tunnel bearings and other incidental food-contact areas where extreme cold temperatures are experienced.
- The first high-performance antiwear food-grade greases for general plant maintenance.
- The first antiwear, food-grade hydraulic oils meeting pump manufacturers' specifications for use in hydraulic systems where the fluid may be exposed to the processed product.
- A fully synthetic, food-grade gearbox lubricant providing extended drain intervals and excellent antiwear and extreme-pressure characteristics.
- The first fully synthetic, food-grade lubricant for cold-temperature conveyor lubrication in freezing plant applications.
- The first food-grade grease for the high-speed closing machines found in the brewing and beverage industry compatible with the centralized lubrication equipment found on these machines.
- The first food-grade, EP, antiwear fluid for use in high-speed Angelus can seamers.
- The first food-grade universal hydraulic/transmission fluid for use in harvesting equipment in areas where the product may be exposed to the lubricant.
- The food and beverage industry standard for high performance, low volatility vacuum pump oils for use in high oil contamination environments.
- The food industry's highest performing synthetic oven chain lubricants for use in continuous bakery and other process ovens.
- A superior line of food-grade, synthetic compressor fluids for food plant air and refrigerant compression.
- The first retort cart wheel bearing lubricant solubilized with a non-ozone depleting carrier.
- The first food-grade steel can stamping lubricant line providing low VOC content and high metal finish quality for can lid and end manufacturing.
- The first food-grade and non-zinc, antiwear steam peeler and continuous cooker sterilizer lubricating oils.
- The first high-temperature-capable, food-grade, synthetic oven chain lubricants.
- The first to introduce Micronox[®], an effective antimicrobial technology that is authorized by the FDA under 21 CFR 178.3570 for use in "Lubricants with Incidental Food Contact." Independently field tested by JAX, this groundbreaking advance protects lubricants with Micronox from microbial contamination.
- The first completely new technology, 1002 synthetic, FG-H1 compressor and vacuum pump fluids since 1990. Patent-pending innovations in fluid formulations that provide performance well beyond available food-grade synthetic fluids.
- The first food-grade synthetic, ester-based, fire-resistant hydraulic oil that is FM Global-approved for high-temperature cook area hydraulic systems.

AEROSOL LUBRICANTS, SEALANTS & COATINGS

Pressure-Lube, a division of JAX, offers premium quality aerosol products for food plant, industrial and fleet maintenance. We put our time and effort into developing the best available for each application.

FOOD-GRADE LUBRICANTS



Food-Grade Penetrating Oil

A food-grade oil with the same penetrating and wetting abilities as our America's finest formula. Also makes an excellent spray-down oil. Aerosol, Trigger Spray, Bulk. JAX109.

Magna-Plate[®] 78

An E.P. antiwear food-grade lubricant for the chains and conveyors on equipment in a food-processing environment. Aerosol, Trigger Spray, Bulk. JAX114.

Magna-Plate[®] 86

100% Synthetic (FG)

(FG)

FG

(FG)

A 100[®] synthetic lubricant for food-plant extreme-temperature use. Range is -70°F to 460°F (-57°C to 238°C). Aerosol, Trigger Spray. JAX110.

T-Oil Food Plant Machinery Coat

A pure white mineral oil for food plants that need assurance of 3H integrity for their spray-down oil or slide lubricant. Eliminates potential contamination from transferring oil from bulk to secondary container. Aerosol, Trigger Spray, Bulk. JAX139.

Dry-Glide® Silicone

A silicone lubricant authorized for use in all sanitary food plant applications where there is a need to eliminate friction between unlike surfaces. Aerosol, Trigger Spray, Bulk. JAX108.

Dry-Glide® WB Silicone

A non-flammable, water-based version of our high percent food-grade silicone spray. Aerosol, Bulk. JAX208.

Dry-Glide[®] 3H Silicone Release

Pure food-grade silicone fluid and propellants leaves extremely fine mist for blow molds or other intense release applications. JAX308.

BDF Cling-Lube

Formulated with high-performance food-grade oil and food-grade grease designed to eliminate dripping from overhead conveyors. Aerosol. JAX214.

PürGel Klear USP Petrolatum

A truly unique package for the food, beverage and pharmaceutical processing industries, this is a direct-contact pure USP clear petrolatum. Aerosol, Bulk. JAX140.

Halo-Guard[®] FG-2

Cures to a thick coating of white grease to protect against metal-to-metal contact and washout. Very water- and chemical-resistant. Aerosol, Bulk. JAX213.

Food-Grade Mold Release N-S

Formulated to provide efficient food release from molds, grills, loaf pans, boning benches chopping blocks, and other hard surfaces. Provides enhanced release properties and allows for fine, even coating. Uses non-soy lecithin. Aerosol, Trigger Spray, Bulk. JAX233.

Magna-Plate[®] 74

Compounded to provide the best air line lubricant performance in all areas requiring NSF H1 food-contact authorization. Drip bottles, Bulk. 00740.

DC Conveyor Release WB RTU DC Conveyor Release

Formulated for multiple uses in the food-processing industry, particularly in baking where mesh conveyors are carrying product through 300°F - 550°F (149°C - 288°C) ovens. RTU DC Conveyor Release is a ready-to-use pre-diluted version of DC Conveyor Release WB. Trigger Spray, Bulk. 00238, 00338.

Belt Dressing

Contains no resin or asphalts; will absolutely not collect dirt or abrasive materials.

Food-Grade Anti-Seize

With a base of our top-of-the-line food-grade grease, the addition of high-temp non-corrosive H1 solids gives a reliable anti-seize to fight corrosion and galling on fasteners. Brush Bottles, Pails. JAX134. Aerosol JAX234.

Synclear

A high-temperature synthetic grease. Use on rolling elements, plain bearings and joints and linkage areas. Aerosol. JAX144.

Tef-Stef Dry Film Lubricant

For applications that require a clean, dry, non-silicone-based lubricant that will not attract particulates. Aerosol. JAX145.

Trolley-Glide FG 3H

Premium, direct-contact trolley lubricant with rust and corrosion protection and load-carrying properties. JAX146.

Proofer Oven Chain Oi

Works to eliminate corrosion on high humidity oven chain applications. JAX147

FLEET AND MATERIAL HANDLING



Heavy-Duty Chain & Cable Lube

This is a heavy-duty, grease-based dual-purpose penetrating lubricant that reduces internal friction and extends chain and cable life. Aerosol, Trigger Spray. JAX104.

Lift Truck & Sliding Tandem Lube

This is a unique combination of two premium greases with moly and graphite that helps eliminate oil dripping, prevents wear, and reduces friction, rust and freeze-ups to -60° F (-51°C). Leaves a coating that adheres well. Aerosol. JAX106.

Non-Chlorinated Brake Parts Cleaner

Effective at removing brake fluid, grease, oil, road grime and other contaminants. California low-VOC compliant. Aerosol. JAX229.

WLTB (White Lift Truck & Boom)

For forklifts that operate in food, beverage or pharmaceutical processing areas. Use on telescoping boom cranes. Aerosol. JAX143.

Snowplow Grease

For use on municipal snowplowing equipment for the wingposts and husting hitches. For any metal-to-metal application that requires adherence. Also for use in water parks. Aerosol. JAX120.

Big Jim

Formulated for the logging industry, this is an extremely thick, high-cling open gear grease spray with added moly and graphite. Aerosol. JAX206.

Jet Fire Starting Ether

A starting ether highly concentrated for quick starts down to -65°F (-54°C). Approved by major oil companies and engine manufacturers. 85[®] ether. Extremely flammable. *A*accd JAX115.



(FG)





(FG)

FG







(FG)



12

H2

INDUSTRIAL LUBRICANTS



This high-performance, environmentally-friendly, light-colored lubricant with PTFE prevents rust, displaces water, lubricates, and penetrates. Aerosol. JAX100.

America's Finest Penetrating Oil

A blend of the finest oils, solvents, wetting agents and moly formulated to penetrate and loosen more effectively than a torch. Excellent wicking action. Aerosol, Trigger Spray, Bulk. JAX101.

Chain Drive Pin and Bushing Lube

A foaming, high EP, superb antiwear chain lubricant for areas requiring deep penetrating action in a lighter-colored oil. Aerosol, Trigger Spray, Bulk. JAX102.

Tool Life Cutting Oil

A general-purpose, non-chlorinated, tapping, reaming and machining fluid that cools and extends tool life. Drip Bottle, Trigger Spray, Bulk. JAX217.

Gear-Guard[®] Synthetic Open Gear

A synthetic open gear lubricant formulated to be the most water-resistant, supply the best film adhesion, and provide the most wear protection. Aerosol, Tube, Pail. JAX105.

Protecto-Lube

A dry-film moly spray for long-term lubrication and rust-proofing that will not attract or collect particulates. An excellent anti-seize compound and rust preventative. Aerosol. JAX112.

Pyro-Kote[®] 220

Synthetic high-temperature lubricating oil with exceptional antiwear performance. Use on dryers, heatsetting machines, tenter frames, and oven conveyors and chains. Aerosol, Trigger Spray. JAX141.

SOLVENTS AND CLEANERS



A non-chlorinated degreaser that is compatible with a greater number of metals, plastics and elastomers. Excellent loosening adhesives. Aerosol, Trigger Spray, Bulk. JAX211.

Electrical Contact Cleaner Non-Flammable

A non-flammable cleaner for electrical and electronic components that is odorless, nonstaining and will not harm electrical insulation or plastics. Aerosol. JAX124.

Stainless Steel Cleaner & Polish

Cleans and polishes high-luster surfaces and removes water stains, finger prints and oils while leaving surface resistant to and free of residue or film. Aerosol. JAX123.

Green-Clean and Crystal-Clean Cleaner/Degreaser

Environmentally-friendly cleaner/degreaser for surface preparation, degreasing and industrial equipment and cleaning/degreasing metal parts. Crystal-Clean is a clear formulation of Green-Clean. Trigger Spray and Bulk. 00122 & 00022.

100% Synthetic, H2

K1

K2





XACT Fluid Solutions provides lubricant application and dispensing systems. These systems Xactly control the application of the lubricants and extend the life of industrial and foodplant machinery.







ENGINEERED SOLUTIONS

XACT^{*} Fluid Solutions' UNILINK^{*} and LINKSeries provides custom lubricant application and dispensing systems, extending the life of your machinery. XACT Sniper sensing technology allows your maintenance and production personnel to spend less time worrying about lubrication accuracy and focus on what they do best.

These systems use a logic control cabinet to control volume and frequency of all lube points from one central location. With proper lubrication, you can dramatically reduce downtime and extend your equipment life. Features:

- Precisely timed lubrication intervals
- Reduced lubricant consumption
- No missed lubrication points or lube cycles
- Reduced energy costs
- Reduced maintenance and clean-up costs

SINGLE AND DUAL-POINT LUBRICATORS

XACT offers a variety of single and dual-point lubricators that provide a perfect solution for hard-to-reach applications like ceiling fans and air-handling systems. These lubricators help to ensure there are no missed lube points or cycles and provide a cost-effective alternative to manual oiling. Features:

- Battery-operated power
- Delivery pressures up to 350 psi
- 1, 3, and 12-month settings
- Multiple mounting bracket options
- A clear reservoir to view lubricant level

LUBE-GUARD LUBRICANT SAFE STORAGE AND TRANSFER METHODS

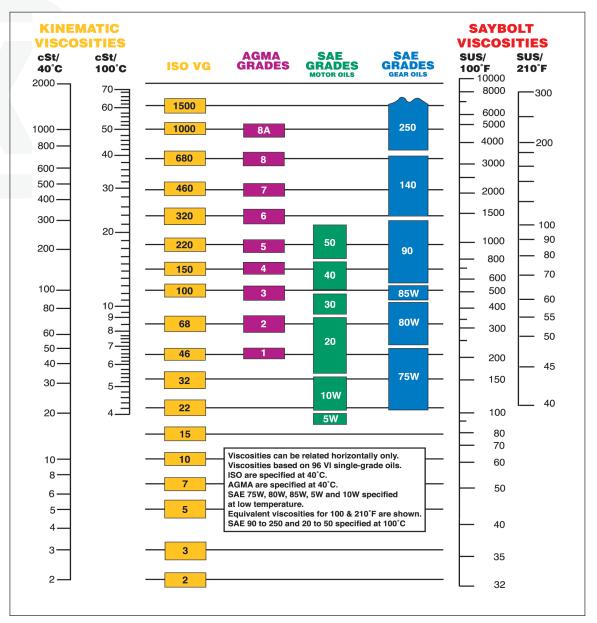
The XACT Lube-Guard Program is a multi-faceted approach used to clearly identify each lubricant and its proper application within your plant. Lube-Guard uses color-coding to ensure your plant maintenance team knows the correct lubricant and proper lubrication frequency for each piece of machinery. This color-coded program includes: wall charts, equipment tags, grease gun tubes, zerk fittings and color-coded caps and labels for Oil Safe^{*} containers.

Safe storage and transfer methods are also put into place to reduce the chance of cross contamination. In addition to Oil Safe Containers, other safe storage and transfer solutions include our Tote-A-Lube Bulk Containment Systems and sampling valves to easily obtain oil samples.

- Choice of seven colors
- Plant-wide uniformity
- Clean transfer and storage
- Low implementation time and cost
- Tanks, totes, drums, grease guns, tags and charts

www.xactfluid.com

VISCOSITY REFERENCE CHART



Viscosity is the single most important property of a lubricant. It will be the most critical factor in the performance and life of the lubricated machinery. The reference chart above, showing oil viscosity grades as measured in different standard scales, will help you select the proper viscosity grade for your lubricant.

Viscosity that is too low for the intended application can cause premature wear, loss or rupture of fluid film, more rapid lubricant degradation, higher heat due to wear friction, excessive fluid leakage, and many other serious conditions.

Viscosity that is too high for the intended application can cause increased energy consumption, higher heat due to internal fluid friction, more difficult initial start-up, decreased operating efficiency, poorer demulsibility, and increased air entrainment, among other serious conditions.

Grease is primarily lubricating oil formulated with a thickener agent. The same rules of oil viscosity selection apply to the grease's base oil.

Properly specified and applied, lubricants can be your biggest ally in extending equipment life and eliminating downtime. Contact your JAX Representative or Distributor for the most professional assistance in the lubrication industry.

GREASE COMPATIBILITY CHART

	Aluminum Complex	Barium	Calcium	Calcium 12-Hydroxy	Calcium Complex	Clay	Lithium	Lithium 12-Hydroxy	Lithium Complex	Polyurea	Calcium Sulfonate
Aluminum Complex		•	•		•	•	•	•	•	•	•
Barium	٠		٠		٠	٠	٠	٠	٠	٠	
Calcium	٠	٠		٠	٠	٠	٠	•	٠	٠	
Calcium 12-Hydroxy	٠	٠	٠		•	٠	٠	٠	٠	٠	•
Calcium Complex	٠	٠	٠	•		٠	٠	٠	٠	٠	•
Clay	٠	٠	٠				٠		٠	٠	
Lithium	٠	٠	٠		٠	٠		٠	٠	٠	•
Lithium 12-Hydroxy	•	•	•			•	٠		٠	•	•
Lithium Complex	٠	٠	٠			٠	٠	٠		٠	
Polyurea		٠	•			•	•	•	•		
Calcium Sulfonate	•	٠	٠	•	٠	٠	•	•	٠	٠	

NLGI NUMBERS FOR GREASE

A scale for the classification of consistency of a grease, based on penetration numbers determined by ASTM Method D 217. The scale was originally designed by the National Lubricating Grease Institute (NLGI).

NLGI Consistency Number	ASTM Worked (60 strokes) Penetration at 25°C (77°F), tenths of a millimeter
000	445 to 475
00	400 to 430
0	355 to 385
1	310 to 340
2	265 to 295
3	220 to 250
4	175 to 205
5	130 to 160
6	85 to 115

Although there are no official "half" numbers (e.g. 2 1/2), it has become a tradition to give such "half" numbers to intermediate grades (e.g. a grease with a penetration range of 230-260 is called a 2 1/2 NLGI).















JAX INC., based in Menomonee Falls, WI USA, is a manufacturer of high-technology industrial, synthetic and food-grade lubricants.

Founded in 1955, JAX produces conventional and extreme-performance synthetic lubricants for industrial, manufacturing, transportation, construction, food processing and numerous other industry segments. JAX lubrication products are distributed worldwide.





AMERICA'S FINEST INDUSTRIAL LUBRICANTS

JAX INC.

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