

Steel Industry Portfolio

The webinar will begin in
less than 10 minutes.



Steel Industry Portfolio

The webinar will begin in
less than 5 minutes.



Steel Industry Portfolio

Mystik
LUBRICANTS


CITGO
LUBRICANTS


clarion
LUBRICANTS



Amber Fessler– CLGS, CLS & OMA-I

- CITGO Senior Technical Services Representative
- Materials Engineer
- 12 Years of Experience in Lubricants
- STLE Certified
 - Certified Lubrication Specialist
 - Oil Monitoring Analyst I
- NLGI Certified
 - Certified Lubricating Grease Specialist



Doug Rice – CLGS, CLS & OMA-I

- CITGO Sr. Product Specialist
 - Grease Technology
- B.S. Chemistry
- 30 Years of Experience in Lubricants
- STLE Certified
 - Certified Lubrication Specialist
 - Oil Monitoring Analyst I
- NLGI Certified
 - Certified Lubricating Grease Specialist

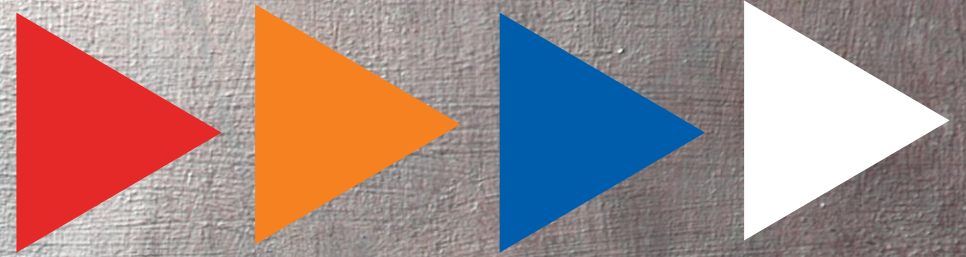


Angela Porter

- CITGO Sr. Account Manager
- B.S. Environmental Science
- 35 Years of Experience in the Oil Industry
 - 11 years in Health, Safety and Environmental Management
 - 23 years in Sales – PCMO + ancillary, industrial, metal working, heavy duty, bitumen



Agenda



Overview of Finished Steel Products

Steel Industry Process

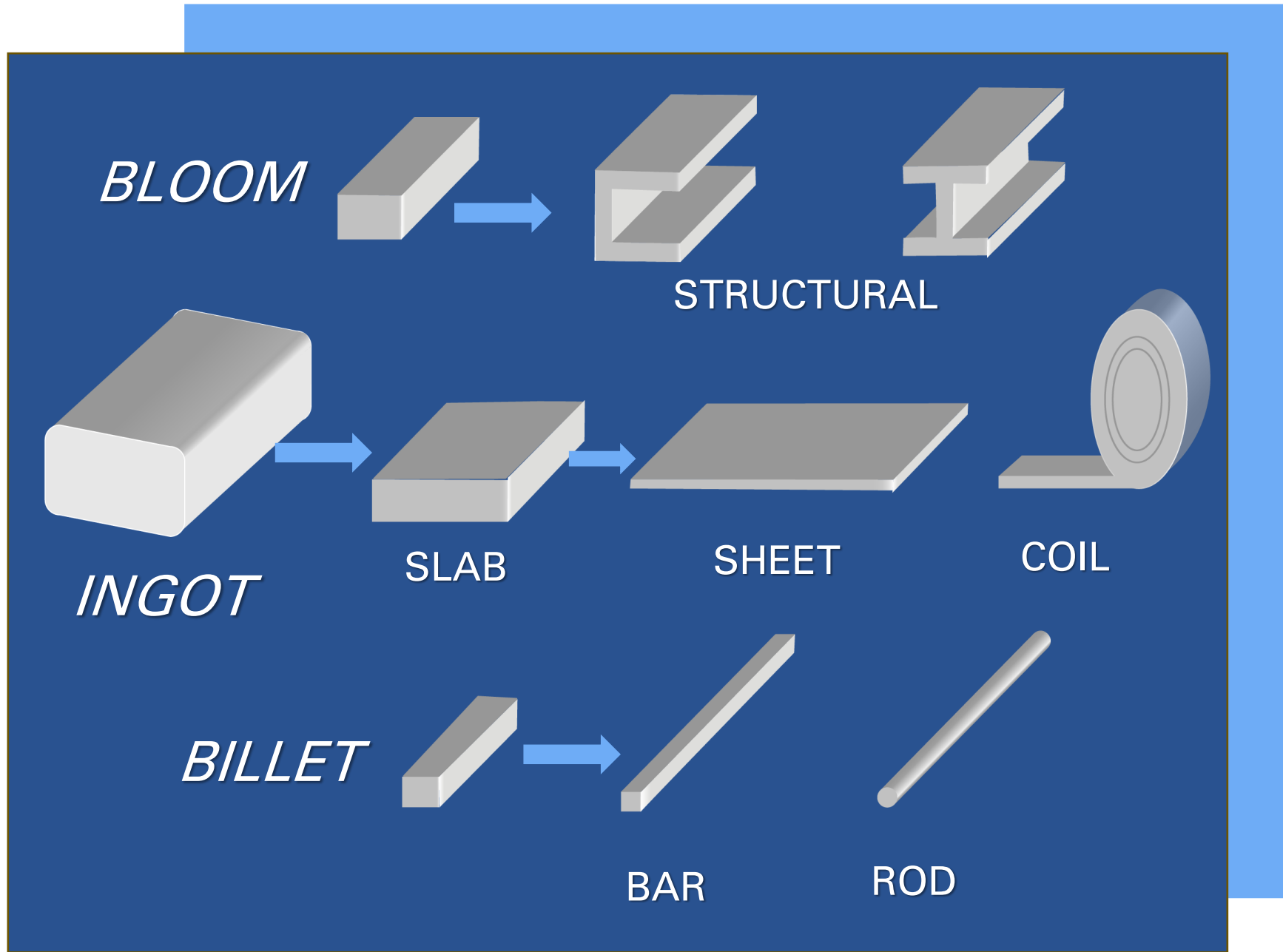
Selling to the Steel Industry

Steel Industry Lubricants



Overview of Finished Steel Products

Steel Forms



Steel Mill Products & Industries

Building & Infrastructure

- Structure, rebar, walls/ceilings, climate control, fixtures/fittings

Automotive

- Structure, components, tires

Energy

- Mining, pipelines, extraction/production, storage, distribution

Packaging

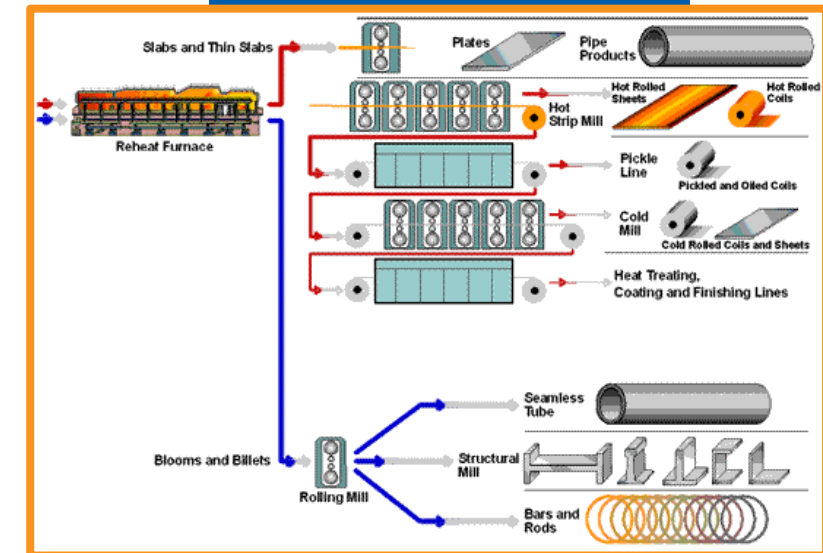
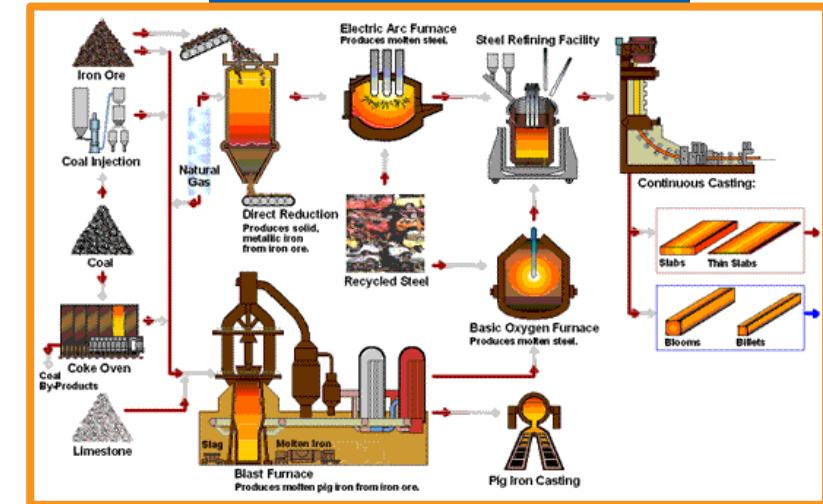
- Cans and drums

Transport

- Rail, shipping containers, aircraft components

Tools & Machinery

- Cold work (punching, drawing, pressing, forming)
- Hot work (die casting, forging, extrusion, stamping)
- Plastic molding/extrusion



Steel Industry Process



A Typical Steel Mill



Roll Stand

Gearboxes

Shears & Finishing

Steel Mill Process: Bar & Rod Mills



Casting/Reheat of Billet

Roughing Pass

First pass through stands

Intermediate Pass

Further refining through multiple stands

Finishing Pass

Bar/Rod Reaches Final Size

- May be cut to size and arrive on cooling bed (bars and larger diameter rods)
- Wire rod is coiled in laying head (small diameter)



Selling to the Steel Industry



Preparation

What to
Anticipate

Be
Prepared

Ongoing
Support

Selling to the Steel Industry

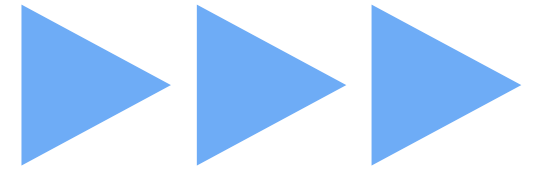


Preparation

“GIVE ME SIX HOURS TO CHOP DOWN A TREE AND I WILL SPEND THE FIRST FOUR SHARPENING THE AXE.”

- PRESIDENT ABRAHAM LINCOLN

Pre-Contact Preparation



**Prospect's Web
Page**

**Social/Professional
Sites**

Industry Web Site

- American Iron and Steel Institute
- World Steel Association
- Association for Iron and Steel Technologies

Internal Resources

CITGO Team

Understanding the Pain Points

Challenge

Impact



What to Anticipate



Reliability



Consultations



Contacts



Meetings

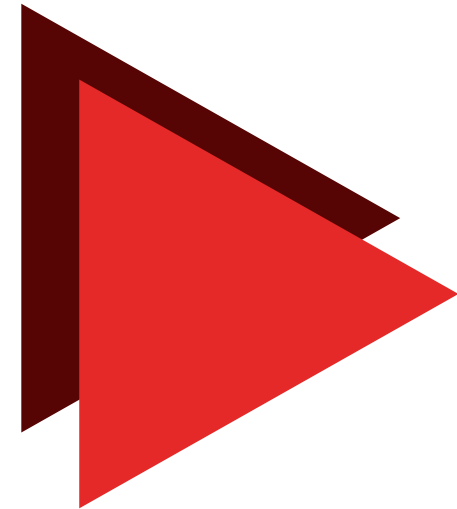


Reliability

What are you offering?



How are you different?



Be Prepared

Safety Training

PPE



Where Lubricants Are Used in a Steel Mill



What Gets Lubricated?

R&O

- Roll necks
- Journals
- Roll bearings
- Drainpipes
- Bearing housings
- Reservoir ceilings

Gear Oils

- Roll stands
- Shears
- Cooling beds



Fire-Resistant Hydraulic Fluids

- Oven doors
- Pushers
- Coilers
- Shears
- Cylinders

Greases

- Caster rollers
- Roll bearings
- Conveyor bearings
- Electric motors
- Couplings
- Mobile equipment

Steel Industry Grease


Mystik
LUBRICANTS



Mystik® LithoPlex® Industrial Greases

(Formerly known as Lithoplex ST Greases)

LithoPlex Industrial Greases are high-temperature greases with exceptional water resistance and stability which is critical in many primary and secondary mill applications.

They are industry tested to withstand extreme pressure, high shock loads and corrosive environments in mills.

The special lithium complex formula retains its consistency even in the most severe service.

Their ISO 460 base oils provide good load and wear protection.

They are highly recommended for use in rolling mills, work rolls, strip mills, conveyor bearings and drive u-joints.



Mystik® JT-6® Synthetic 100 #1



A full synthetic lithium complex grease that combines excellent multi-purpose properties with a high dropping point.

It provides superior wear control, extreme pressure (EP) performance and water resistance.

This grease provides outstanding corrosion protection in the corrosive environments found in mills.

The ISO 100 base oils and NLGI #1 consistency allow for exceptional pumpability in centralized lubrication systems.

They have seen use in rolling mills, work rolls, strip mills and conveyor bearings.

Mystik® JT-6® Synthetic 220 #2

A full synthetic lithium complex grease that combines excellent multi-purpose properties with oxidation control and a high dropping point.

This grease provides outstanding corrosion protection in the corrosive environments found in mills.

It provides superior wear control, extreme pressure (EP) performance and water resistance.

In addition to its high temperature performance, it exhibits outstanding low temperature performance and pumpability.

They are highly recommended for use in rolling mills, work rolls, strip mills, conveyor bearings and drive u-joints.





Mystik® JT-6® Synthetic 460 Greases

The Mystik JT-6 Synthetic 460 #1 and #2 are fully synthetic lithium complex greases that are additized to provide superior extreme pressure (EP) and anti-wear characteristics and inhibited to resist oxidation and corrosion.

The high viscosity index ISO 460 base oils provide stable viscosity over a wide temperature range while maintaining excellent low temperature pumpability.

They have excellent Water Spray Off performance and provide outstanding corrosion protection in the most corrosive environments.

Mystik® JT-6® Synthetic Electric Motor Grease

This is a premium quality lithium complex that is optimized for performance in electric motor applications that can be found throughout steel mills.

It provides outstanding wear protection, oxidation resistance and rust protection.

It also protects against corrosion in yellow metals such as the copper and brass found in electric motors.

This product is formulated with ISO 100 synthetic base oils.



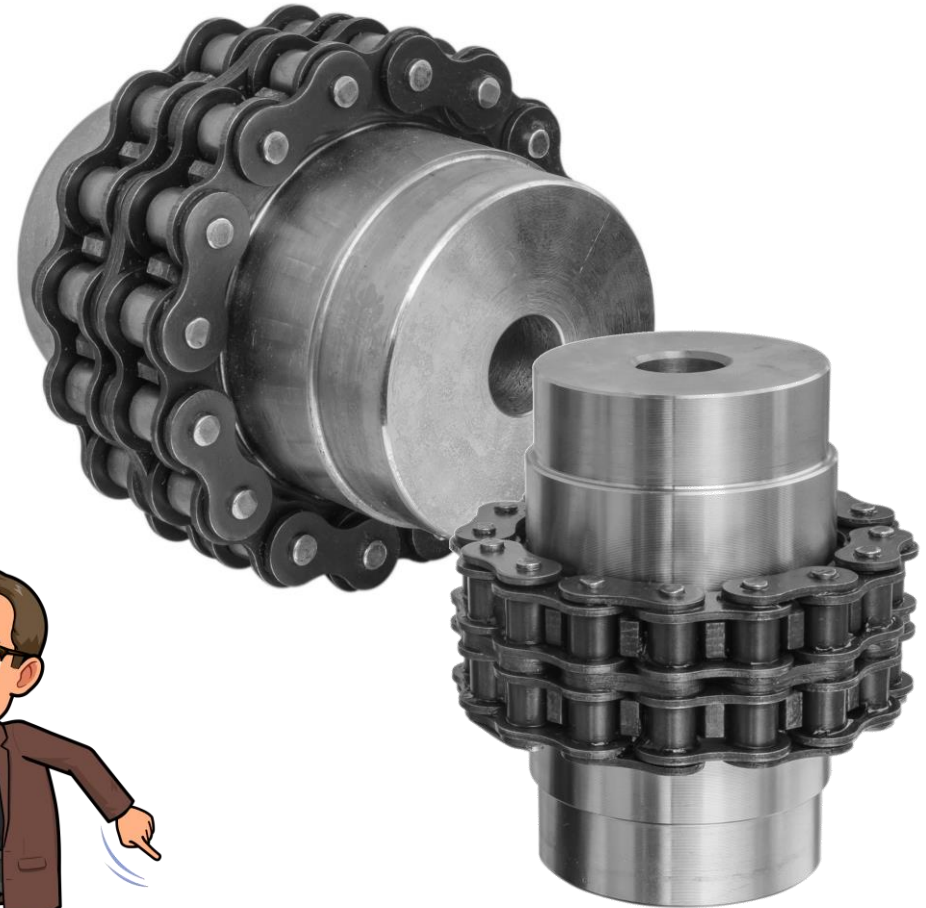
Mystik[®] High Speed Coupling Grease

This grease is specially formulated with a lithium/polymer thickener in premium high viscosity base oils to provide excellent resistance to oil separation in high-speed grease lubricated couplings.

The high-viscosity base oils provide outstanding load-carrying capability.

Mystik High Speed Coupling Grease meets or exceeds the requirements of AGMA CG-1, CG-2 and CG-3 type coupling greases.

It is recommended for grease lubricated couplings including gear couplings, grid couplings and flexible chain couplings.





Steel Industry Fluids

Challenges

High
Temperatures

High
Pressures

High Speeds

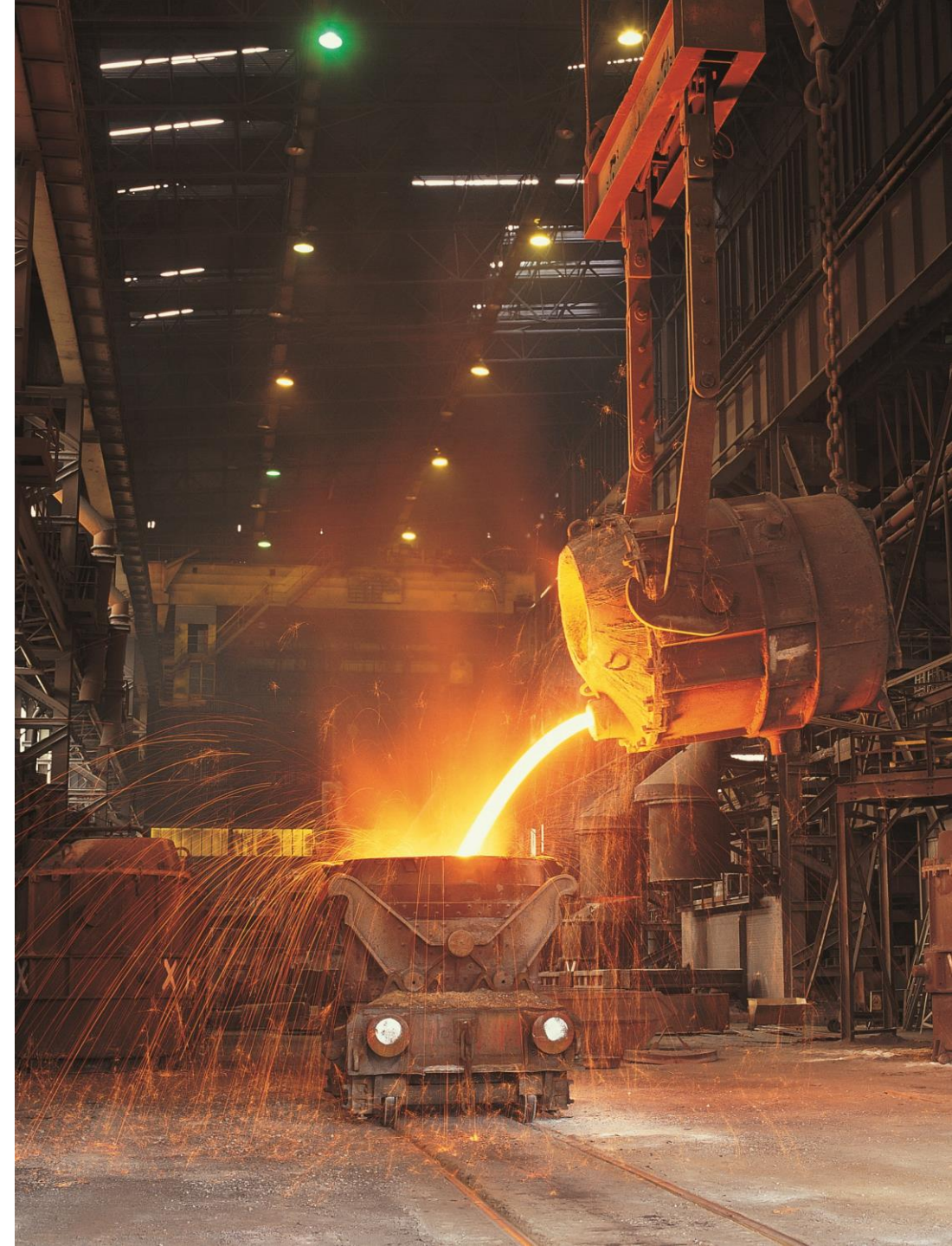
Water

Rust &
Corrosion

Maintaining
Demulsibility

Foaming
& Air
Entrainment

Bacterial
Growth



Fire-Resistant Hydraulic Fluids



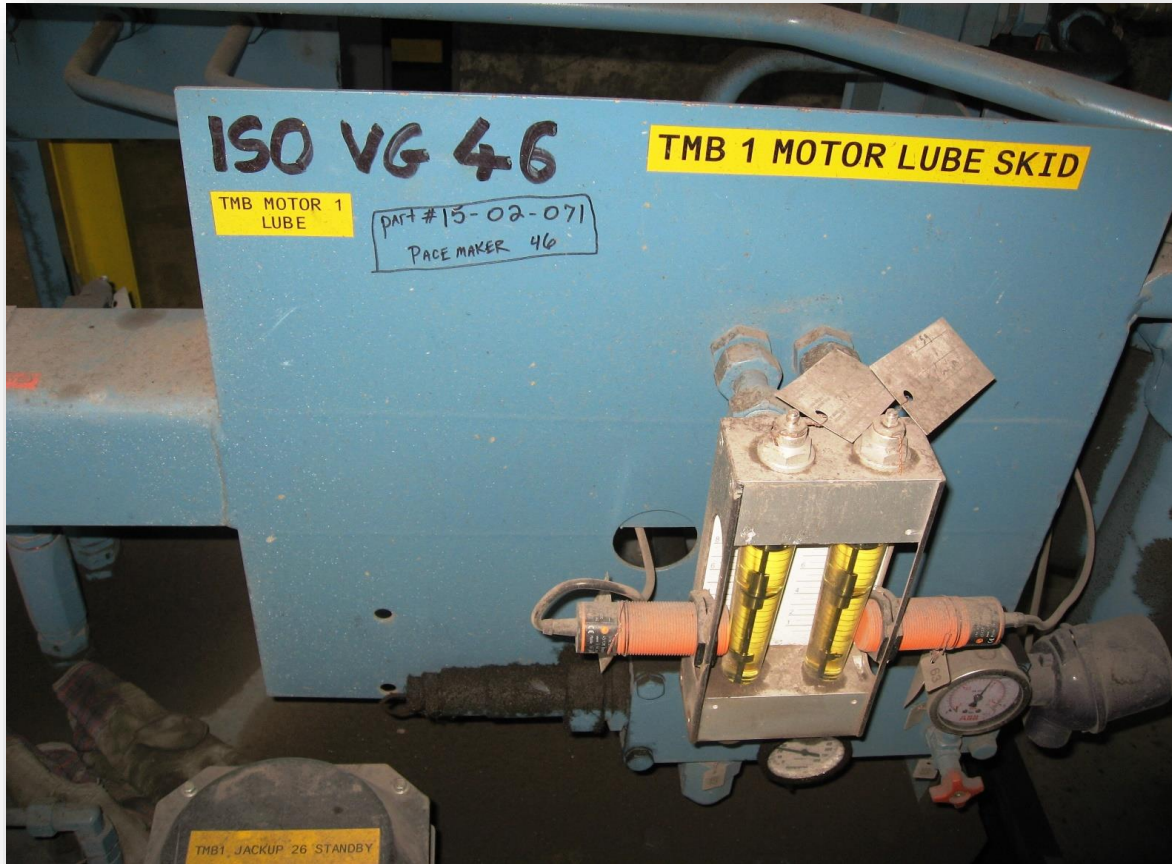
FR WG-40XD & FR-5046HP

- Water-glycol product minimizes fire risk vs mineral oil and provides high VI (WG-40XD: 180; HP product 210)
- FR WG-40XD up to 2000psi; FR-5046HP addresses equipment operating up to 5000psi
- Use in mobile and stationary equipment within the mill

Converting from another type of hydraulic fluid:

- Check compatibility with pumps and seals
- Drain, clean & flush equipment
- Refer to CITGO Technical Bulletin: Use of Fire-Resistant Hydraulic Fluids for full procedure

Circulating/R&O Oils



CITGEAR XCO

- Designed for high-speed rod mills; ISO 100 formulated for Nucor Darlington
- Recommended for use in Danieli and Morgan high-speed rod mill equipment
- ISO grades 100-460

Pacemaker SD

- Designed to exceed Siemens AG requirements for Morgoil Advanced Bearing Lubricant 'Super Demulsibility' specification
- Rapid separation of water, especially suitable for industrial environments with contaminated water

Gear Oils

EP Gear Oils:

- EP Compound
- CITGEAR Synthetic EP

Non-EP Gear Oils:

- CITGEAR XCO
- Cylinder Oil
- CITGEAR Synthetic HT
- CITGEAR Synthetic PAG



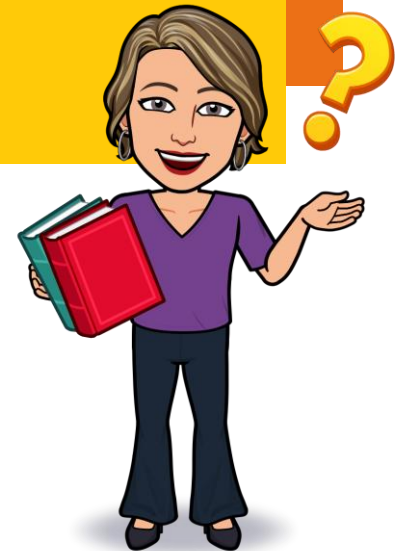
CITGO[®] CompKleen[®] Synthetic Cleaner



Questions?



Please post your
questions using the
Q&A function.



Contact Us

Lubes Answer Line
800-248-4684

8:00 AM - 12:00 PM
1:00 PM - 5:00 PM CT
Monday - Thursday

8:00 AM - 12:00 PM
1:00 PM - 4:30 PM CT
Friday

lubeshelp@citgo.com



Future Webinars

December 1:
Grease Fundamentals

January 2024:
Grease 201

February 2024:
CITGARD On-Highway
HDEO & Drivetrain



Thank You!



See you next time!

