

A Brief Overview

India's Largest Specialty Lubrication Organization





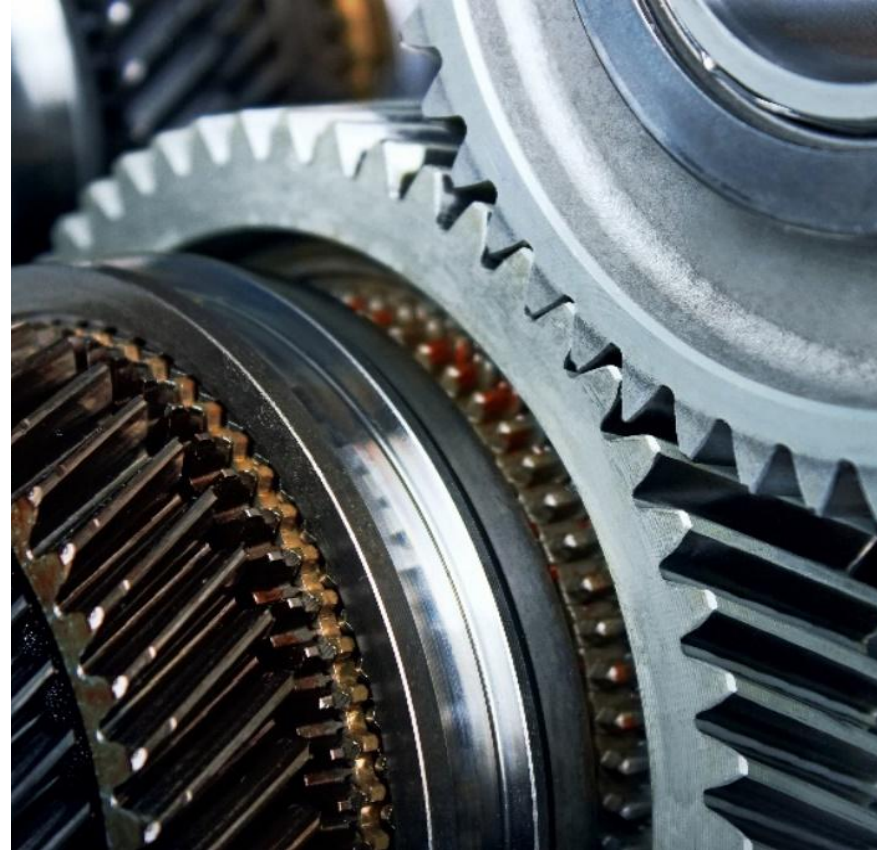
*Accelerating industrial
performances with the
**most efficient lubrication
solutions.***



Who are we

Molygraph Lubricants is a leader in the innovation, formulation, and manufacturing of super speciality lubricants. Our proven experience in product development and deep technical knowledge on the application side, allows us to add value to our customer's processes.

Our customer profile ranges from Automotive OEM & first-tier suppliers, the world's largest steel & sponge plants, major hot forging/HVAC/metal forming manufacturers, prominent suppliers in the oil & gas industry as well as top-of-the-line manufacturers in various heavy and general engineering segments.





Leadership

The leadership team comprises technical experts and thought leaders with the single-minded objective of helping our customers grow. Our team fosters an environment of innovation and continuous improvement, encouraging open communication and teamwork among all employees of the organization. Through their technical expertise, strategic thinking, and unwavering commitment is the cornerstone to customer success.





Manufacturing Facility

Our manufacturing facility located just 100 kms for the economical capital of Mumbai. The facility boasts of 50,000 sq ft of specialised equipment and the right checks at each stage from formulation to final production for optimal quality output.

A production capacity of 30 Tons per day with state of the art mixers, mills, deaerators, homogenizers, aerosol filling, packing machines and highly trained people we make sure our products maintain the right quality and consistency always.





Research & Development

Our technology has been the cornerstone of our success. Working with different chemistries, base oils and the best additive manufacturers in the world has fostered a culture of innovation at Molygraph. This allows us to sell solutions to customers, add value to their business and work with them through a consultative approach.

Our 2 separate labs dedicated to Research and Development and Quality Control respectively are equipped in house with the latest equipments to test various properties of different kinds of lubricants right from raw materials to finished products.

Our laboratory has been accredited by the Ministry of Science and Technology, as an In house Research and Development facility and is registered with the Department of Scientific and Industrial Research (DSIR)





Industries

- Automotive Components
- Animal Feed
- Food & Beverage
- Forging
- Metal Cutting and Forming
- Pharmaceutical
- Plastic Molding
- Steel
- Textile
- Automotive Assembly
- Cement
- General Engineering
- Mining
- Oil & Gas
- Pulp and Paper
- Punching and Stamping
- Sugar
- Wind Power





Product Range

- High Performance Greases
- Anti Seize Compounds
- Synthetic Gear Oils
- Synthetic Chain Oils
- Forging Lubricants
- Punching & Stamping Fluids
- Metal Working Fluids
- Food Grade Lubricants
- Mold Release Agents
- Rust Preventive Coatings
- Cleaners & Degreasers
- Multipurpose Aerosols





Sales & Marketing Network

With a nationwide reach, we lead in delivering high-quality lubrication solutions. Our 100 channel partners ensure easy and timely access, while 50 field engineers guarantee top-notch support. Internationally, we partner with 25 distributors, extending our excellence worldwide. Count on us for efficiency, longevity, and global standards in industrial lubrication.



100+

Pan-India
Channel
Partners

25

International
Channel
Partners

50

Field
Engineers



Success Stories

A brief overview of a few success stories across multiple industries with different products

Safol Chain Oil 220

Lubrication of high temperature conveyor chains





Safol Series - Food, Beverage & Pharmaceutical Lubricants

Safol is a comprehensive range of products from Molygraph Lubricants for the food, pharma, and beverage industries keeping paramount importance on safety.

All Safol products are NSF H1 certified. Kosher and Halal certifications are available to meet further specific requirements for our customers.

Use of synthetic base oils, food-compatible thickeners, and best-in-class additives which improve the efficiency and prolong the lifespan of bearings, conveyors, chains, and gears thereby enhancing overall performance.





Customer

- Biscuit and Bread manufacturer

Application

- Baking oven conveyor chain subjected to continuous temperature of +200°C

Challenge

- High amount of carbon deposits on chains
- Chain begins to creak after 90 mins of lubrication

Incumbent Lubricant

- Interflon





Solution:

Safol Chain Oil 220

- Synthetic Ester
- Low evaporation rate
- Low varnish deposits
- Operating temp upto 250 *C
- High film strength
- NSF, Halal and Kosher Certified

CHARACTERISTICS	TEST METHOD	UNIT	TECHNICAL VALUES
Appearance	Visual	-	Clear
Colour	Visual	-	Colourless to Light Yellow
Base Oil	-	-	Synthetic
Density @ 29.5°C	ASTM D 1298	gms/cc	0.920
Viscosity @ 40°C	ASTM D 445	cSt	300
Viscosity @ 100°C	ASTM D 445	cSt	28
Viscosity Index	ASTM D 2270	-	125
Copper strip Corrosion	ASTM D 130	Rating	1b
Flash Point [min.]	ASTM D 92	°C	260
Operating Temperature	-	°C	Up to 250



Results

- **No carbon residue in long term observation**
- **Relubrication increased to 120+ mins from 90 mins**
- **Chain works smoothly without squeaks when loaded**
- **Reduced lubrication interval and consumption by 30%**

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Product review Molygraph SaFol Chain Oil 220

Testing of Molygraph SaFol Chain Oil 220 oil began in December 2022 due to the difficulties in supplying oils recommended by the equipment manufacturer to the Russian market. Before that, they used products from brands such as Kluber, Interflon, Aimol.

The oil was tested on a Vanderpol baking oven to lubricate the drive chain of the conveyor in the baking chamber, the operating temperature limit of which could reach +200 g.

In the course of long-term observation, Molygraph SaFol Chain Oil 220 proved to be good, the oil does not coke, the lubrication interval has increased compared to previously used products (previously the lubrication interval was a maximum of 90 minutes and the chain began to creak, today the interval has been increased to 120 minutes). Since the chain, at the moment, with an increased lubrication interval, works smoothly, without squeaks and an increase in load, we still plan to increase the interval.

To date, Molygraph SaFol Chain oil 220 has already reduced lubricant consumption, resulting in lower maintenance costs.

Technical Director of
Testori LLC Grigoriev AI.





Food Industry Customers



SMG Premium

Lubrication of Crusher bearings in the Sugar Industry





SMG Premium - High Performance Lubricant for the Sugar Industry

SMG Premium is a specialized lubricants developed for the lubrication of crusher bearings in the sugar industry.

Customer Overview:

A 3500 TPD sugar mill in India, operating with 5 tandem mills equipped with TRPF (Toothed Roller Pressure Feeder) and GRPF (Grooved Roller Pressure Feeder) systems, faced significant challenges with the lubrication of journal bearings.

Challenge:

The mill was consuming **15 kg of standard lubricant per day**, leading to high operational costs and frequent downtime for maintenance due to **low pumpability of the existing grease**





Application Details

Mill Details	5 Tandem Mills with with TRPF and GRPF
Mill Size	33 x 66 - 2 mills & 28 x 48 - 3 mills
Journal Bearing Materials	Gun Metal & White Metal
Hydraulic Pressure on Rolls	200-220 kgs/sq cm
Grease Dispensing System	Cenlub Make with dual line system
No of lubrication points	14 greasing points
Lubrication Frequency Time	2 min on & 14 min off
Operating Temperature	34-40 degree C
Grease Pumped per day	2.60 kg
Total Grease consumption	15 kg

When selecting a sugar mill lubricant consideration must be given to:

- **Bearing loads.**
- **Contamination issues like Water and Sugar Cane Juice ingress**
- **Metal compatibility.**
- **Pumping systems.(Grease Pumpability)**



SMG Premium Specs and Benefits

The introduction of SMG Premium:

- **high pumpability aluminum complex thickener,**
- **added solid lubricants and excellent EP load characteristics**
- dramatically improved the lubrication process, **resulting in decreased downtime and lubricant consumption.**

Spec	Detail	Benefit
Consistency	NLGI 1	Ideal for variable temperatures in sugar mills.
Thickener	Aluminum Complex	High-temp stability, water resistance.
Weld Load	800 kg	Withstands heavy loads, prevents wear.
Corrosion Prevention	Excellent	Extends equipment life in harsh conditions.
Water Resistance	Excellent	Effective in wet processing environments.
Oxidation Stability	100 Hrs drop in pressure (kg/Cm2)	Long-term reliability, less maintenance.
Shear Stability	<10 units	Maintains consistency under stress.



Results

- **Reduction in grease consumption by 15%**
- **A decrease in maintenance downtime by 25%, eliminating pumpability issues and down time**

Ultramill Grease PU Premium

Lubrication of Continuous Casters in the Steel Industry





Steel Mill Lubricants

Molygraph Lubricant's portfolio for the steel industry encompasses solutions for the most demanding applications. Our products increase productivity, reduce energy costs and significantly improve maintenance intervals in critical areas such as **Continuous casters, Hot Rolling, Cold Rolling, TMT Bars and Seamless Pipes**





Customer

- Steel Manufacturer

Application

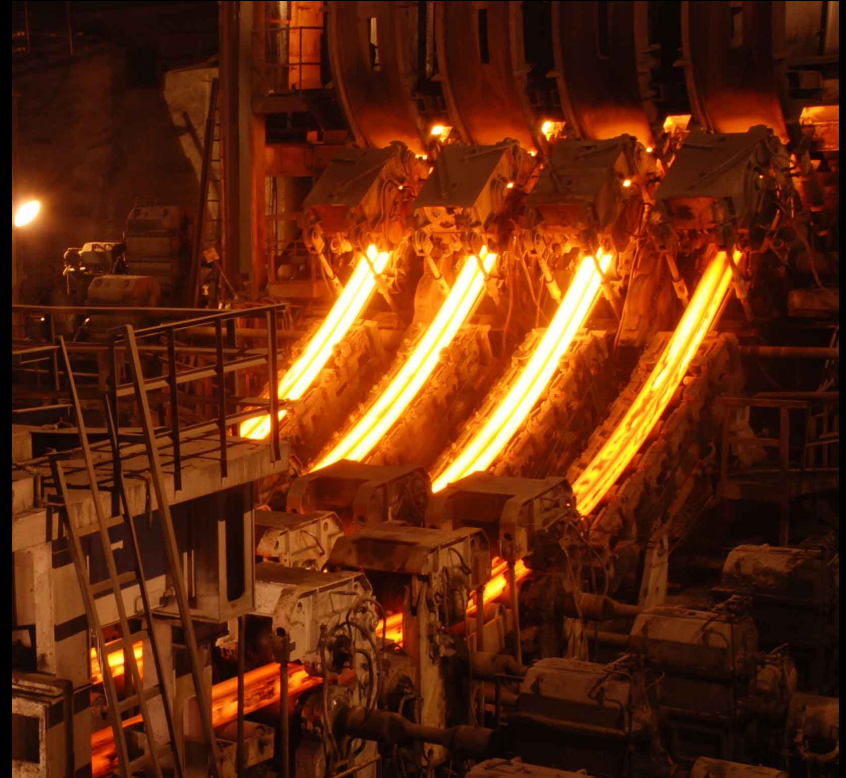
- Continuous Caster

Challenge

- Existing grease was failing at continuously high temperatures with high levels of oxidation
- Excess grease needed to be pumped to prevent bearing failure

Incumbent Lubricant

- Lithium EP 2





Solution:

Ultramill Grease PU Premium

Heavy Duty Long life Organic Thickened High-Temperature Grease

- Polyurea burns cleanly, thus residue formation is minimized.
- Excellent lubricant for bearings exposed to high temperature.
- Superior anti-wear properties.
- Excellent water resistance property
- Protects against rust and corrosion
- Very good flow characteristics in a wide temperature range.

CHARACTERISTICS	TEST METHOD	UNIT	TECHNICAL VALUES
Appearance / Colour	Visual	-	Beige
Texture	-	-	Homogeneous Long Fibrous
Base (Thickener)	-	-	Polyurea
Base Oil	-	-	Refined Mineral Oil
Base Oil Viscosity @40°C	ASTM D 445	cSt	460
NLGI Grade	-	-	#1/2
Worked Penetration	ASTM D 217	0.1 mm	290-310
Dropping Point	ASTM D 2265	°C	+260
Emcor SKF Corrosion Test With distilled water With salt water	DIN 51802	Rating	0-0 0-2
Copper Strip Corrosion Test	ASTM D 4048	Rating	1b
Operating Temperature Range	CTM*	°C	-20 /+180



Results

- **Reduced grease consumption from 1000 kgs to 540 kgs / month**
- **Significantly reduced cost and downtime by extending bearing life**
- **Achieved long term lubrication without grease oxidising quickly**

SGH 460 Premium

Lubrication of Main Mill bearings in the Paper Industry





Customer

- Paper Manufacturer

Application

- Main Paper Machine (Wet & dry end & Calendering section)

Challenge

- Grease colour changing and washed out due to water ingress in the Wet section
- Grease leaking/melting out in the Dry section due to low thermal stability





Solution:

SGH 460 Premium

Multifunctional high-temperature water-resistant EP grease.

- **Advanced thickener system of Calcium Sulphonate complex with a dropping point of over 300°C**
- **High base oil viscosity with additive system provides resistance to loads**
- **Excellent resistance to hot and cold water**
- **Superior wear and corrosion protection**

CHARACTERISTICS	TEST METHOD	UNIT	TECHNICAL VALUES
Appearance	Visual	-	Smooth tacky
Colour	Visual	-	Green
Base [Thickener]	-	-	Special Metal Complex
Base Oil	-	-	Refined Mineral Oil
Base Oil Viscosity @ 40°C	ASTM D 445	cSt	460
NLGI Grade	-	-	# 2
Worked Penetration	ASTM D 217	0.1 mm	265 - 295
Dropping Point	ASTM D 2265	°C	+ 300
Water Washout @ 80°C, wt. loss	ASTM D 1264	%	< 3
Four Ball Weld load	ASTM D 2596	Kgs	600
Four Ball Wear Scar	ASTM D 2266	mm	0.42
Copper Strip Corrosion Test	ASTM D 4048	Rating	1b
Operating Temperature Range	-	°C	-20 / +200



Results

- Same grease in wet and dry end did not show degradation and one product was used for both sections leading to better inventory management
- Reduced grease consumption from 540 kgs to 360 kgs, effectively by 33% as well as providing longer relubrication intervals
- Significantly reduced maintenance time and cost of cleaning

**We welcome
your enquiries.**

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