



4700-4702 MONOLEC®

INDUSTRIAL LUBRICANT

The Specialized Lubricant for Centralized Lubrication Systems

MONOLEC® Industrial Lubricants are designed especially for centralized lubrication systems. They contain MONOLEC®, LE's exclusive wear-reducing additive and highly effective extreme pressure additives which meet the most stringent requirements of equipment manufacturers and users. Unlike many lubricants used in centralized lubrication systems, MONOLEC® Industrial Lubricant was designed for use in these systems. MONOLEC® Industrial Lubricants are waterproof and will not form permanent emulsions where moisture is present. They contain special rust preventative additives.

A centralized lubrication system is an indirect lubrication system in which a pump feeds the lubricant from a reservoir through supply lines to valves that inject a measured amount of lubricant into each bearing. Centralized systems vary from relatively simple to extremely complex designs. Since centralized systems are used in many different types of equipment, and in all types of industry, almost every conceivable operating condition will be encountered. MONOLEC® Industrial Lubricants provide superior lubrication under the most demanding conditions.

USER BENEFITS:

• LONGER EQUIPMENT LIFE

Reduced Wear – MONOLEC®, LE's exclusive wear-reducing agent, plus other antiwear and EP additives, provide exceptional film strength and proven protection against wear, metal-to-metal contact and scoring.

Complete, Reliable, Effective Lubrication – Designed for centralized systems to reach components to be lubricated. Easily pumpable down to -40°F. (-40°C.) with excellent mechanical stability. Unaffected by central or conventional dispensing systems. Low separation or "bleed" in centralized lube systems even under heavy loads and high temperatures.

Won't Wash Out – Water resistant. Protects against rust.

Excellent Heat Reversion Properties – Not only do MONOLEC® Industrial Lubricants have high oxidation resistance, but they maintain their consistency after being repeatedly heated and cooled.

• LOWER MAINTENANCE & REPLACEMENT COSTS

These are achieved through reduced wear, complete and effective lubrication and excellent heat reversion characteristics of MONOLEC® Industrial Lubricants. This means less downtime and fewer repairs. Grease does not harden on aging, or oxidize, so it is easily pushed out by fresh grease. Reduces downtime and labor because of smooth, cool performance.

• AVAILABLE GRADES

4700-NLGI 00 4702-NLGI 0 4701-NLGI 1

TYPICAL APPLICATIONS:

- Centralized/Automatic Lubrication Systems
- High Speed Bearings
- Injection Molding Machines
- Grit Collectors & Primary Sludge
- Concrete Block Form Machinery
- Low Temperature Gearboxes & Bearings
- Bottling Machines

WHAT IS MONOLEC?

MONOLEC® is LE's exclusive wear-reducing additive which has proven its extraordinary performance in thousands of applications. It is an invaluable component in LE's Industrial Oils, Engine Oils and other LE lubricants bearing the MONOLEC® tradename.

MONOLEC® creates a single molecular lubricant film on the metal surface, vastly increasing film strength without affecting tolerances. LE's MONOLEC® allows opposing surfaces to slide by one another with greatly reduced friction, heat and wear.



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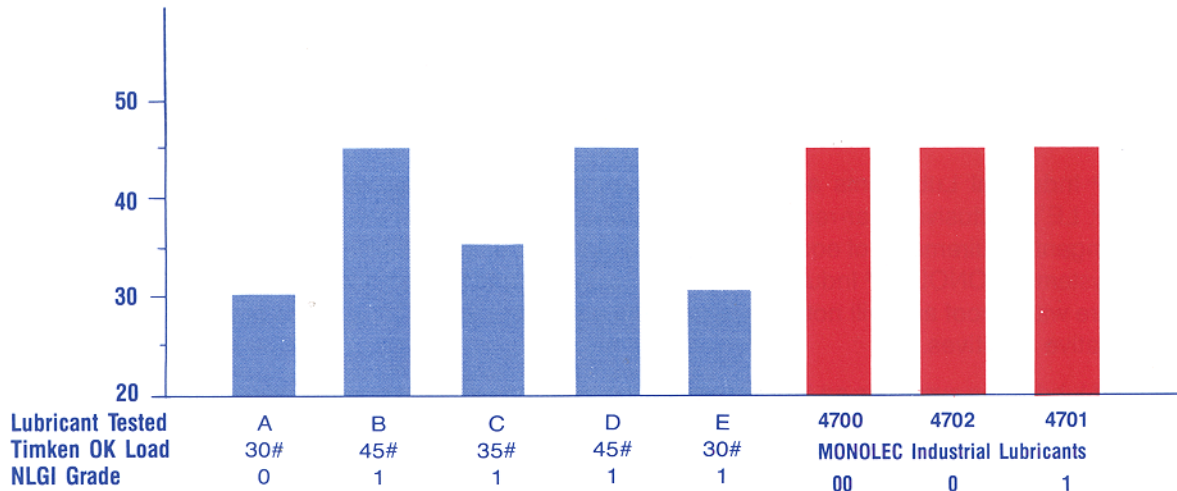
LEADERS IN LUBRICANTS

LE Products manufactured under an
ISO 9001:200 Certified Quality System

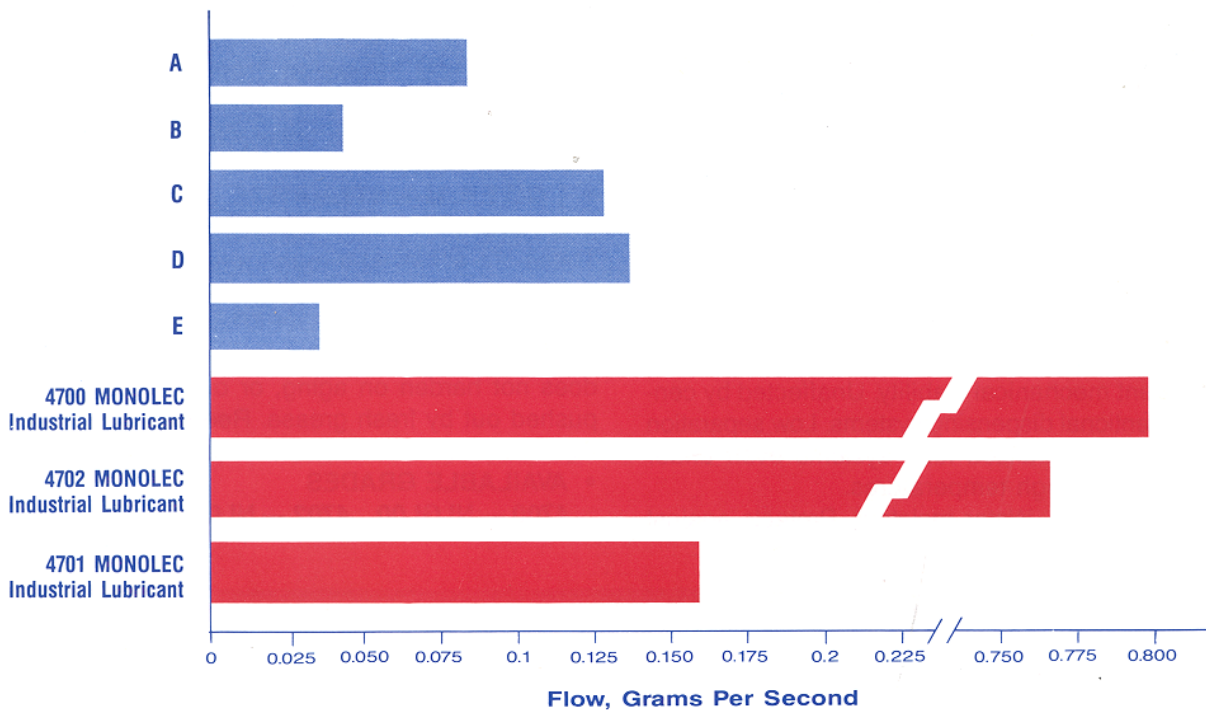
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4700, 4701, 4702 MONOLEC® INDUSTRIAL LUBRICANTS DEMONSTRATE SUPERIORITY IN TIMKEN OK LOAD TESTING AND U.S. STEEL S-75 GREASE MOBILITY TEST

TIMKEN OK LOAD



S-75 GREASE MOBILITY TEST AT ZERO DEGREES F.



Two important characteristics of NLGI 1, 0, and 00 grease are their low temperature pumpability and load carrying capacity. Of the lubricants tested, only 4700, 4701, and 4702 showed superior characteristics in BOTH tests. The U.S. Steel S-75 test is designed to demonstrate the low temperature pumpability characteristics of a lubricant as would be seen in a central lube system. Higher flow rates indicate better low temperature pumpability. The Timken OK test (ASTM D-2059) measures the load carrying capability of a lubricant, an important consideration in selecting a lubricant for a heavily loaded bearing.



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TECHNICAL DATA BULLETIN

4700-4701-4702
MONOLEC®
Industrial Lubricant

LEADERS IN LUBRICANTS

DESCRIPTION:

Designed particularly for centralized lubrication systems. Complex base will not separate even under severe conditions. Contains MONOLEC, LE's exclusive wear-reducing additive.

PHYSICAL CHARACTERISTICS - TYPICAL:

	<u>4700</u>	<u>4701</u>	<u>4702</u>
NLGI Grade	00	1	0
Base Oil:			
Viscosity			
SUS @ 100°F	625	625	625
SUS @ 210°F	70	70	70
cSt @ 40°C	120	120	120
cSt @ 100°C	12.5	12.5	12.5
Worked Penetration @ 77°F (25°C)	400-430	310-340	355-385
Flash Point °F (°C)	500 (260)	500 (260)	500 (260)
Dropping Point, °F (°C)	375 (191)	450 (232)	425 (218)
Texture	Semi-Fluid	Smooth	Smooth
Base Thickener	Aluminum Complex	Aluminum Complex	Aluminum Complex
Color	Red/Orange	Red/Orange	Red/Orange

PERFORMANCE TEST RESULTS:

Timken, ASTM D-2509, lbs.	45	45	45
Oxidation Stability, ASTM D-942 psi drop @ 100 hrs.	5	5	5
Rust Prevention Rating, ASTM D-1743	Pass	Pass	Pass

APPLICATION:

Centralized lubrication systems and any application calling for an EP grease.

RECOMMENDATION:

Use where an easily pumped, medium EP grease is required. Especially good for low temperature grease applications. Also excellent for very high speed bearings.

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BENEFICIAL QUALITIES:

Designed especially for centralized lubrication systems.

LE's exclusive additive MONOLEC[®] reduces wear.

Waterproof - protects against rust.

Highly oxidation resistant - long life in systems.

Highest quality paraffinic base stocks for best lubrication.

4701 has 450°F (232°C) dropping point. Can be used in high temperature service.

Does not harden on aging or oxidation. Easily pushed out by fresh grease.

Easily pumpable and dispensable.

Carries Timken OK Load of 45 lbs. minimum.

Reduces downtime and labor because of smooth, cool performance.