

## What makes LE Unique

LE's own additive research & manufacturing company, The ALMASOL Corporation, as well as our complete R&D department in Wichita, Kansas continually develop more effective & efficient high technology additives & product lines that are proprietary & exclusive to Lubrication Engineers.

All this technology is incorporated into LE lubricants to ensure that they are, and will remain, the finest available in the industrial world.

LE's four unique additives are the main reasons why LE lubricants provide the best possible product performance versus competitive brands & consistently increase profitability for all our customers by: Extending service intervals =

Reduced lubricant consumption

Increasing equipment life

Reducing energy consumption

Improving reliability = Less expensive downtime

Minimising inventory = Multi-Purpose products

- ALMASOL®

- MONOLEC®

- QUINPLEX®

- PYROSHIELD® These exclusive LE additives are only available in LE products - no other company has access to, or uses this proprietary additive technology.

In addition to LE's unique ALMASOL®, MONOLEC®, QUINPLEX® & PYROSHIELD® additives there are also many other different types of additives that are used by LE to improve the quality & performance of our lubricants:

- Anti-Oxidants: resist the formation of acids, sludge, varnish and high oil viscosity which increase oil viscosity

- Extreme Pressure (EP) and Anti-Wear Agents: protect against shock loading, scuffing, galling, adhesive wear and abrasive wear

- Corrosion Inhibitors: protect against rust and corrosion

- Foam Inhibitors and Air Release Agents: reduce foaming and air entrainment

- Demulsifying Agents: enable the lubricant to separate from water faster

- Viscosity Index Improvers: increase the operational temperature range of the lubricant

- Detergents: keep equipment parts "clean" in high temperature operations and protect parts from rust formation

- Dispersants: suspend foreign bodies within the lubricant by preventing them from agglomerating or collecting on engine parts to form sludge and varnish

- Pour Point Depressants: lower the solidification temperature of the lubricant

Why does Lubrication Engineers use 100% Paraffinic Base Oils?

As well as LE's four unique additives, another important reason for the quality & success of LE's lubricants is due to the fact that LE only uses 100% paraffinic base oils to manufacture its products. [more info]

The finest, highest quality, specially refined 100% paraffinic base oils are used to produce the highest performance, superior quality lubricants from Lubrication Engineers. Although these base oils are expensive, no other type of petroleum base oil can match their performance.

While crude oil differs in chemical composition from oilfield to oilfield, petroleum industry experts classify crude oil into 3 categories: paraffinic, naphthenic & mixed base.

The best lubricating oils are made from paraffinic crudes. LE goes two steps further by only using US Mid-Continent crude (acknowledged as the best for lubricating oil) and by also using an extra refining step to remove more of the 'undesirables' in the base oil. Paraffinic Base Oil Advantages

Property

Lubricating Benefit

Greater oxidation resistance Operate at higher temperatures. Last longer - longer lubrication intervals. Less carbon, sludge, varnish & oil thickening from oxidation products Better lubricity & higher film strength Less wear, friction & energy used Higher natural viscosity index Offers more lubrication protection over a wide temperature range - thins less at higher temperatures & thickens less at lower temperatures More compatible with seals & hose materials

Longer seal & hose life. Less oil leakage Greater water resistance Better water separation & resistance to emulsification