

## MAINTENANCE & RELIABILITY

### The Importance of lubrication



Before you start up all your equipment, it's important to do an inspection to visual check of your machinery to ensure there is nothing broken, missing or showing signs of abnormal wear. Lubrication extends the life of your machine and keep it running at top performance. When lubrication is done inconsistently or done incorrectly, it negatively impacts

machine condition. Most of the mechanical failures stem from inadequate lubrication.

### When to use oil or grease

Grease and oil are aim to lubricate equipment and prevent damage through metal to metal contact. However, there are some situations where an oil is the better choice, and some when a grease works better.

Grease is used in machineries, tools and equipment which require minimal shifting of the lubrication. Grease also use to which not easily affected by high temperatures. Oils are used when greases would be harder or impractical to apply. Generally, in systems that consistently operate at high temperatures, using oil is preferable to grease as it can install circulation systems to help cool the units.

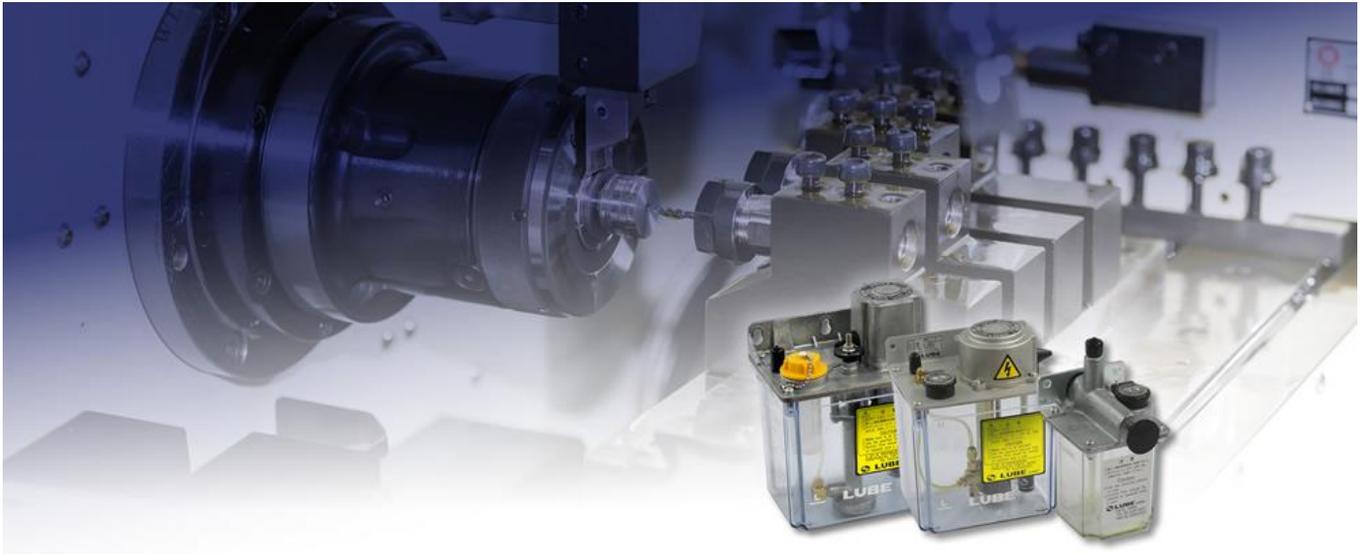
## Next-Generation Integrated Lubrication System



LHL is a lubrication system that is as friendly to manufacturing as is to the environment. The 2 major problems in customer's respective specialized areas referring to automation and machinery maintenance at manufacturing sites, as well as the protection of the global environment. Lube aims to integrate these problems and solve them by introducing the LHL system, and support customers to achieve the desired levels of productivity, maintainability and environmental consciousness.

Lube high-quality and highly reliable LHL lubricant has very high film thickness retention, load-carrying capacity and interfacing properties. It is able to spread over narrow areas of bearing parts, reducing the possibility to metal-to-metal contact during the machinery operation, which causes wear of the bearing parts. In addition, this system will not only reduce your lubrication cost, but also increase the life your of machine and your coolant.

## Reasons why users and machine manufacturers install LHL systems



**49%** Low volumes of lubricant required reduces maintenance costs and increases cutting fluid life. Hence, reduced offensive odours make a more clean and safe work environment.

**21%** The performance of bearing parts is maintained for much longer time, costs for the replacement of bearing parts are reduced.

**15%** Cleaner equipment due to lower volumes of required lubricant. The washing fluid's performance is sustained for a longer period of time, reducing the frequency of washing fluid replacement.

**8%** The high-quality LHL grease ensures a long-term reliable lubrication system. Since 2008 after LHL system was introduced, there have been no instances of solidification or deterioration found in any machine tools using LHL all over the world.

**5%** Pressure monitoring systems are available for LHL system. If compared to ordinary grease, LHL gives superior resistance to thermal increases.

**2%** The Lube cartridge eliminates the need to use drums or pails, thereby reducing lubricant management costs.