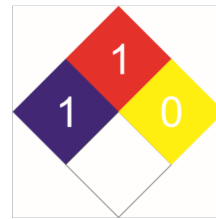


Next-generation lubricant significantly reducing friction and wear

- Prevents excess abrasion of high-load bearing Box & V-Way, Gib, and Plain Bearing surfaces
- Forms and maintains a strong oil film on Roller Bearings, Ball Screws, and Linear Rolling Surfaces
- Prevents rust with excellent anti-rust properties; will not emulsify in cutting fluids
- Creates an ideal lubrication effect with a proper lubricant volume at a precisely timed interval

Integrating the Advantages of Oil and Grease

Advantages of Oil Liquidity Excellent transport properties No solidification	Advantages of Grease High load-carrying capacity Wear resistance Water resistance Excellent oil film Maintenance properties Adherent properties
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Typical Properties of LHL-X100

Appearance	Semi-fluid	
Color	Yellow	
Worked Penetration	460	
Drip Point °C	180	
Copper Corrosion (100 deg°C/ 24h)	Pass*	
Evaporation Loss (99deg°C/ 22h) w.t.%	0.31	
Oil Separation (100deg°C/ 24h) w.t.%	N/A	
Oxidation Stability (99deg°C/ 100h) kPa	5	
Four Ball N & (kgf)	LNL	1236
	WL	1569
	N LWI	480
Thickener	Urea	
Base oil viscosity mm ² /s (100°C)	12.2	
Base oil viscosity index	97	

*No change in color into green or black on copper plate is observed.



LHL-X100

LHL resolves oil lubrication problems

The oil lubrication problems which machine tool users are facing

<ul style="list-style-type: none"> • Excessive Lubricant Consumption • Lubricant cost • Man-hours of refilling (lost productivity) • Contamination of machines and workshops • Storage and transportation of oil 	<ul style="list-style-type: none"> • Excessive lubrication oil getting into cutting oil • Deteriorated cutting fluid • Poor working environment due to foul smell • Diminished tool life expectancy • Frequent replacement and disposal of cutting fluid 	<ul style="list-style-type: none"> • Poor oil film retention • Rust and abrasion caused by cutting fluid washing oil away • Non-compatible lubricants causing machinery trouble
Reducing lubricant consumption	Preventing the deterioration and decomposition of cutting fluid	Reducing the abrasion of machine parts

Comments about LHL from machine parts manufacturers

One of the advantages of oil lubrication is its good penetration between wear surfaces. We can expect the same penetration from LHL too, since it has properties similar to oil.

We had problems with mixtures of different types of grease. So, we think the dedicated cartridge for LHL is a great idea.

Depending on the place where parts were attached or their direction, we had oil being washed away, which led to lubrication failures. Naturally, then, water resistance is also important.

Particularly for machines used in environments exposed to water, we have high expectations of LHL's sealing properties, an advantage of grease, and of the water-resistance of urea grease.