

Machine tool hydraulic oil (L-HL)

● Performance Overview

It is a kind of anti-oxygen and anti-rust hydraulic oil, which is made of high quality compound additive and deep refined and hydrotreated base oil. Designed for machine tool hydraulic system. For stable lubrication solutions, viscosity grades: available in a variety of grades to meet the lubrication needs of light duty to medium and heavy duty machine tools. Rust resistance: through 24 hours liquid phase corrosion Test (no rust), copper corrosion test (100°C/3h) up to level 1 standard, protect key components from corrosion. Low temperature fluidity: pour point as low as -12 °C (such as 15# grade), to meet the short-term use needs of northern winter.



● Features

01

Long-term anti-rust protection, adding compound anti-rust agent to form a dense protective film in humid environment, especially suitable for machine tool headstock and gear box in high humidity areas in the south.

02

Excellent oxidation resistance, inhibit oil degradation at high temperatures, reduce sludge generation, and extend the oil change cycle to 1.5-2 times that of traditional hydraulic oil.

03

Environmental compatibility, does not contain heavy metals additives, in line with the eu RoHS directive; Compatible with mineral oil type seals to avoid hardening or expansion of seals.

04

Balance anti-wear performance, although it is a universal hydraulic oil, but add anti-wear agent to reduce the wear of the pump body to less than 600mg (four-ball method test), compatible with the hydraulic system with gearbox.

● Application Scenario

It is used in low-pressure gear pumps for machine tools and other equipment. It can also be used in mechanical equipment that uses other anti-oxidation and anti-rust lubricants, but it cannot be used as high-grade machine tool hydraulic oil, let alone anti-wear hydraulic oil. The product should be used in a temperature range of 0~80°C

Machine tool hydraulic oil performance indicators (L-HL)

Project		Quality indicators						
Model		15	22	32	46	68	100	150
Density (20℃) / (kg/m ³)		Report						
Chroma /No.		Report						
Appearance		transparent						
Flash point (open) /℃	No less than	140	165	175	185	195	205	215
Kinematic viscosity/(mm ² /s)		13.5-	19.8-	28.8-	41.4-	61.2-	90-	135-
40℃		16.5	24.2	35.2	50.6	74.8	110	165
0℃	not more than	140	300	420	780	1400	2560	-
Viscosity index b	Not less than	80						
Pour point c /℃	No higher than	-12	-9	-6	-6	-6	-6	-6
Acid value d (in KOH)/(mg/g)		Report						
Water content (mass fraction) /%	No more than	trace						
Mechanical impurities		none						
Copper corrosion (100℃, 3h)/level	No more than	1						
Liquid phase corrosion (24h)		Rust-free						
Foaming properties (foaming tendency / foaming stability)/ (mL/mL)								
Program I (24℃)	No more than	150/0						
Procedure II (93.5 ℃)	No more than	75/0						
Program III (24℃ later)	No more than	150/0						
Air release value (50℃)/min	No more than	5	7	7	10	12	15	25
Demulsification (time for emulsion to reach 3ml) /min								
54 ℃	No more than	30	30	30	30	30	-	-
82 ℃	No more than	-	-	-	-	-	30	30
Seal Adaptability Index	No more than	14	12	10	9	7	6	Report