Grinding oil

Performance Overview

Maxtop Grinding oil (MTSGF) is formulated from high-quality base oil with narrow fractions and low volatility, along with high-quality additives such as extreme pressure anti-wear agents, antioxidants, and rust inhibitors. The grinding heat is rapidly dissipated through efficient heat conduction to prevent surface burning and microscopic cracks of the workpiece. A boundary lubricating film is formed between the grinding wheel and the workpiece, significantly reducing the wear of the grinding wheel and improving the surface finish. Inhibit electrochemical corrosion during the cooling process and protect the machine tool guide rails and workpieces from rusting during long-term storage.

Features

01

Excellent lubricity: reduces friction and heat during grinding, and reduces wear on workpieces and grinding wheels.

02

Good cooling performance: quickly absorb and take away the heat generated by grinding to prevent the workpiece from overheating and deformation.

03

Anti-rust performance: Form a protective film on the surface of the workpiece to prevent oxidation and corrosion during processing.

04

Cleaning property: helps remove grinding chips and impurities, keeps the grinding area clean, and improves processing accuracy.

05

Anti-foaming: Reduces the generation of bubbles and ensures the stability and continuous supply of grinding oil.

06

Oxidation stability: It is not easy to oxidize and deteriorate at high temperatures, which extends the service life of the oil.

Application Scenario

1：Typical process
Surface grinding, cylindrical grinding, internal grinding, centerless grinding
Form grinding, tool grinding, optical curve grinding
High-speed CBN grinding wheel grinding (requires customized high flash point formula)
2：Key industries
Bearing manufacturing: Superfinishing of rolling elements and inner and outer rings
Automotive parts: High-precision grinding of camshafts and crankshafts
Tool industry: Grinding of the cutting edge of hard alloy inserts
Mold processing: Mirror polishing of injection mold cavities
Semiconductor field: Planar grinding of ceramic substrates
3：Special requirements
Slow feed grinding of titanium alloys and superalloys
Low-stress grinding of thin and brittle workpieces (such as printed circuit boards
Automated grinding production line (supporting centralized liquid supply system)

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Grinding oil performance

Project		Quality indicators
Appearance		Uniform and transparent
Kinematic viscosity (40 ℃), mm 2 /s	not more than	9~13
Flash point (open), ℃	not less than	130
Pour point/ ℃	not higher than	-15
Corrosion test (copper sheet, 100 ℃ , 3h), level	not more than	1
P B value/N	not less than	883
PD value /N	not less than	1960