

# Sulfurized cutting oil

## ● Performance Overview

Maxtop vulcanized cutting oil is a highly efficient metal-working lubricant, specially designed for cutting processes such as turning, milling and drilling. Its core components are refined mineral oil and vulcanization additives, which can form a stable lubricating film under high temperature and high pressure, significantly reducing the friction between the tool and the workpiece, reducing tool wear and extending service life. This product features excellent extreme pressure and anti-wear properties, cooling performance and anti-rust performance. It can enhance the surface finish and dimensional accuracy of the processed surface and is suitable for cutting various materials such as carbon steel and alloy steel.

## ● Features

### 01

Containing sulfurized extreme pressure additives, it forms a strong and tough lubricating film under high temperature and high pressure, reducing the friction between the tool and the workpiece.

### 02

Meet the high-load cutting requirements, protect the tool and extend its service life, and reduce processing losses.

### 03

Excellent heat dissipation performance, preventing thermal deformation of workpieces and improving processing accuracy.

### 04

Add anti-rust components to protect machine tools and workpieces from water vapor and corrosive media erosion.



## ● Application Scenario

1: Deep hole gun drilling processing

It is suitable for heavy-duty cutting of ferrous metals such as 27SiMn and 45# steel on deep hole drilling and boring machines, ensuring the high-precision deep hole processing requirements.

2: High-precision gear processing

It is used in precision gear forming processes such as gear hobbing, gear shaping and gear shaving to improve the surface finish of the teeth and extend the tool life.

3: Mechanical processing of magnesium alloys

Especially for the magnesium alloy cutting scenario, it avoids the safety hazards caused by water-based processing fluids and ensures the stability of processing.

4: Cutting of stainless steel and high-hardness metals

It is suitable for tough materials such as stainless steel and tempered steel, and reduces workpiece roughening and tool wear through extreme pressure and anti-wear properties.

# Performance indicators of vulcanized cutting oil

Project	Quality indicators
Kinematic viscosity (50°C), mm <sup>2</sup> /s	20 ~ 25
Engler viscosity (50°C), E	3.0 ~ 3.6
Stability test (-10°C)	Qualified
Sulfur content, %	1.7
Corrosion (Copper sheet, 50°C, 3h)	Qualified
Water-soluble acids or bases	no
Mechanical impurities, %	0.06
Moisture, %	no
Flash point (open), °C	140

# Maxtop<sup>®</sup>