

Rolling oil

● Performance Overview

Maxtop Rolling oil is a high-performance lubricating and cooling medium specifically used in metal rolling processes, composed of refined mineral oil, synthetic esters and extreme pressure anti-wear agents. It has excellent lubricity, effectively reducing the friction coefficient between the rolls and the plates, reducing energy consumption and increasing the rolling speed. The cooling characteristics can control the rolling temperature and prevent material deformation and oxidation and coking of the roll surface. It is applicable to cold/hot rolling of stainless steel, aluminum alloy, copper materials, etc., as well as foil precision rolling, and is suitable for the working conditions of high-precision rolling mills.

● Features

01

It combines the lubricity of base oil with the synergistic effect of extreme pressure and anti-wear agents, reducing the friction coefficient between the rolls and the plates, and decreasing the rolling load and energy consumption.

02

The formula covers cold/hot rolling scenarios such as stainless steel, silicon steel, and aluminum-copper alloys, meeting the requirements from large reduction in rough rolling to high surface finish in finish rolling.

03

The deformation heat is carried away through the emulsion circulation system, and impurities such as aluminum powder and iron soap are cleaned simultaneously to maintain the cleanliness of the rolling mill.

04

Reduce the hot scratches and wear of the rolls, lower the roll consumption by 20-30%, and extend the roll replacement cycle by more than 30%.



● Application Scenario

- 1: Al/Cu/Steel Rolling: General rolling oil & deformation control to reduce friction/cracks, ensuring flatness.
- 2: Thin Strip Rolling: Semi-stable emulsion enables oil-water separation for 1500m/min+ high-speed rolling.
- 3: Hot Rolling: Phosphonate EP agents for 300°C stability, reducing rolling force 20%+ & preventing oxidation.
- 4: Precision Stainless Rolling: High-viscosity film cuts roll wear 30%, controls $Ra \leq 0.1 \mu m$ for medical/yacht.
- 5: Pre-Coating Rolling: Low-sulfur oil prevents rust (7-15 days), no residue after annealing, ensuring coating adhesion/gloss.

Performance indicators of rolling oil

Project	Quality indicators
Kinematic viscosity (50°C), mm ² /s	12~15
Flash point (open), °C not lower than	160
Freezing point, °C not higher than	-8
Corrosion test (T3 copper sheet, 100°C, 3h)	Qualified
The maximum no-jamming load (Pb) and N (kgf) shall not be less than	882.6 (90)

Maxtop®