Ultra-fast quenching oil

Performance Overview

Maxtop super-speed quenching oil is developed from deeply refined low-viscosity, high-flash-point distillate oil, adding various additives such as refrigerants, antioxidants, carbon deposition inhibitors, and preservatives. It has a very high cooling rate and is especially suitable for bright quenching of large-module gears, large-section bearing rolling elements, sewing machine workpieces, textile workpieces, hardware tools and other workpieces under protective atmosphere or controlled atmosphere conditions.

Features

01

The maximum cooling rate is high, which can make the workpiece obtain sufficient hardness and hardened layer depth after quenching.

02

The cooling rate at 300℃ is significantly improved, and can be controlled at 15~30℃/S according to customer requirements.

03

Good thermal oxidation stability, can maintain long-term stable cooling performance and long service life.

04

Super-speed quenching reduces oil consumption, makes it easy to clean parts, and can greatly improve the working environment.

05

Long-term use will not produce sediment and sludge. Long-term use will keep the viscosity stable and will not thicken.

06

Avoid contact with water, otherwise it will cause emulsification and deterioration.

Application Scenario

It is mainly used for heating quenching, carburizing or carbonitriding quenching of large parts in automobile, bearing, mining machinery, metallurgical machinery and tooling industries. It is also suitable for quenching medium carbon steel and other alloy steels.

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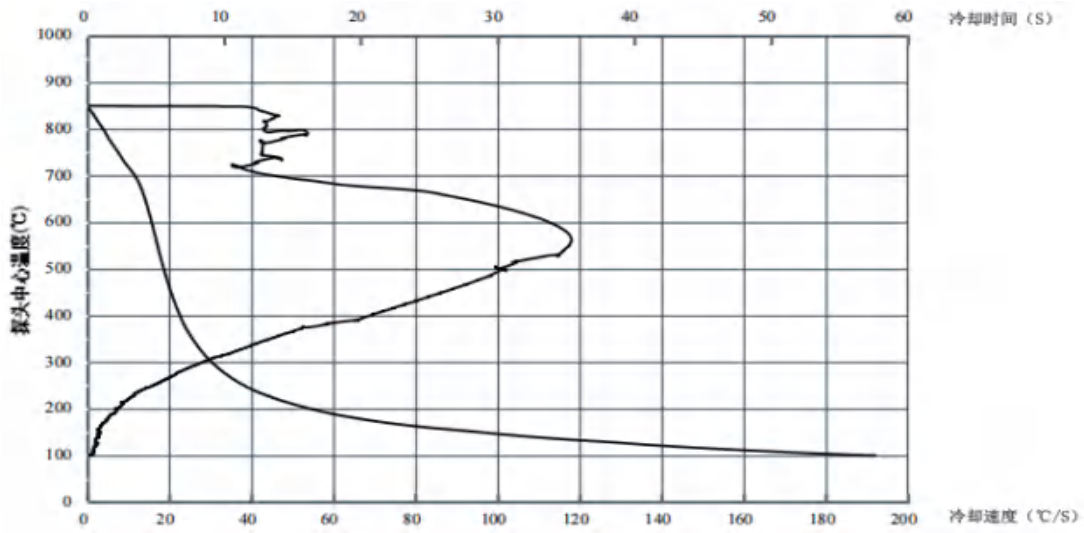
Ultra-speed quenching oil performance indicators

Project			Quality indicators
Kinematic viscosity, mm2/s	40℃	not more than	17
	100℃	not more than	-
Flash point (open), ℃ not less than			160
Flash point, ℃ not less than			180
Moisture, % not more than			trace
Pour point, ℃ not higher than			-9
Corrosion (copper sheet, 100℃, 3h) level is not greater than			1
Brightness, level not greater than			2
Saturated vapor pressure (20℃), kPa not higher than			-
Thermal oxidation stability	Viscosity not more than		1.5
	Residual carbon increase, % not more than		1.5
cold but sex able	Characteristic temperature (at 80℃), ℃ not less than		585
	800 to 400℃ time (at 80℃), s not more than		-
	800 to 300℃ time (at 80℃), s not more than		6.0
	Characteristic temperature (at 120℃), ℃ not less than		-

Cooling characteristic curve of overspeed quenching medium



Cooling characteristics data of ultrafast quenching medium

Medium temperature	Max Cooling rate	Maximum cooling rate Corresponding temperature	300 ℃ Cooling rate	850℃ to below temperature time			Peculiarity temperature	Peculiarity time
				600℃	400℃	200℃		
40	117.92	562.71	27.68	4.70	6.70	16.50	725.76	4.50

Note: The unit of time is S, the unit of speed is C /S, and the unit of temperature is C

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