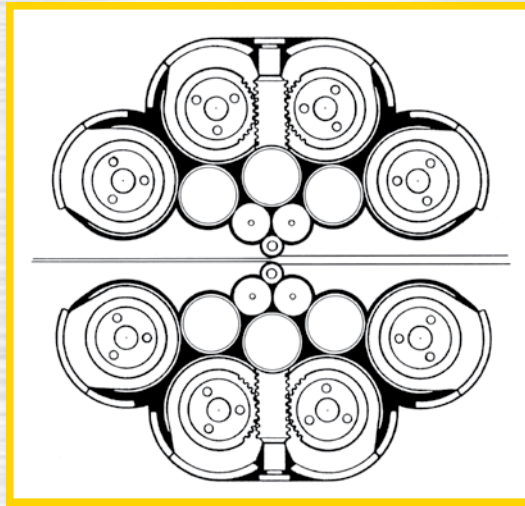


Wallover

Cold Rolling Lubricants



Founded in 1863, **Wallover Oil Company** is one of the oldest, independent manufacturers of industrial lubricants in the United States today. With more than a century of experience, a diverse product line and a commitment to provide outstanding service, it is little wonder that Wallover is also one of the largest manufacturers of premium lubricants and metalworking fluids in the industry.

Our experience with cold rolling oils dates back more than 60 years when we blended our first product for a Sendzimir Mill rolling stainless steel in Pennsylvania. Our products today are sold world wide for all types of metals, including carbon and stainless steels, titanium, copper, brass, bronze, beryllium copper and aluminum alloys. With customized products, customized service, extensive R&D and laboratory facilities to maximize your mill's performance and maintain your system, Wallover Oil Company is the best choice to provide your rolling oil requirements.

WOCOROL 5000 SERIES

WOCOROL 5000 SERIES of products represent a quantum leap forward in rolling oil technology. The base oil and additives in Wocorol 5000 Series were carefully selected after extensive laboratory testing. This testing allowed Wallover Oil Company to formulate a product with three major advantages over more traditional rolling oils. First, Wocorol 5000 Series are formulated with additives that will leave no residue on the rolled strip, even with the lower annealing temperatures seen on copper alloys. It is by far the cleanest running rolling oil available. Second, Wocorol 5000 Series has a heavy duty additive package that allows greater reductions per pass. This means your strip can be rolled to final gauge with fewer passes, therefore eliminating an intermediate annealing process. Third, all of the above benefits were achieved while lowering the base oil's viscosity to a bare minimum. This dramatically enhances surface finish. Also, the light viscosity will inherently carry less dirt, improving your filtration capabilities without any equipment changes. Wocorol 5000 Series were designed specifically for stainless steel. It has also proven to be extremely effective on titanium and beryllium copper.

Typical Properties	
Viscosity @ 40° C, cSt	6
Flash Point, COC, °C	150
API Gravity	36

WOCOROL 6000 SERIES

WOCOROL 6000 SERIES of products are formulated for applications where finish, cooling ability and strip cleanliness are the primary requirements of your rolling oil. The straight cut 60 SUS base oil is extremely stable and displays good natural resistance to oxidation. With its low viscosity, and additive package for wetting and extreme pressure, Wocorol 6000 Series of products will aid greatly in shape control and other heat related problems. These products burn extremely clean in both strip and bell annealing and were designed for finish rolling of stainless, copper alloys and titanium.

Typical Properties	
Viscosity @ 40° C, cSt	9
Flash Point, COC, °C	170
API Gravity	34



The Wallover logo features the word "Wallover" in a bold, blue, sans-serif font. The letter "W" is stylized with a grey shadow effect. The logo is positioned in the bottom left corner of the page, with a thin grey line extending horizontally from the "W" across the page and a vertical line extending upwards from the "W" to a small grey circle at the top. A larger grey circle is partially visible on the left side of the page.

WOCOROL 7000 SERIES

WOCOROL 7000 SERIES are our most versatile rolling oils. The 70 SUS base oil is straight cut and exhibits excellent natural oxidation resistance, cooling ability, rust protection and demulsibility. Wocorol 7000 Series, with their heavy additive package, are a good selection when large reductions are being taken. This additive package gives even wetting along the entire length of the work roll providing maximum cooling while eliminating surface to surface contact with specially selected extreme pressure agents. Providing excellent surface conditions in breakdown or finish rolling, across a broad range of product mix, with varied speeds and reduction schedules, Wocorol 7000 Series of products will do the job.

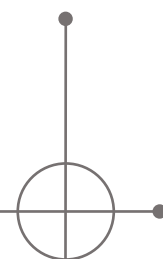
Typical Properties	
Viscosity @ 40° C, cSt	12
Flash Point, COC, °C	175
API Gravity	33

WOCOROL 10000 SERIES

WOCOROL 10000 SERIES of products are the work horses of the Wallover line of rolling oils. These products are the ones to use if you are evaluated in tons-per-hour. They are blended using a 100 SUS straight cut base oil and contain an additive package for wetting, anti-foam, oxidation inhibition, rust protection and extreme pressure. Wocorol 10000 Series with its additional EP additive will help extend bearing life under the extreme pressures encountered when taking maximum reductions at high speeds. Designed primarily for breakdown rolling, Wocorol 10000 Series will help you meet your production requirements today and into the future.

Typical Properties	
Viscosity @ 40° C, cSt	20
Flash Point, COC, °C	185
API Gravity	28.5

	WOCOROL 5000	WOCOROL 6000	WOCOROL 7000	WOCOROL 10000
Finish	Best	Excellent	Good	Average
Reductions	Excellent	Average	Good	Best
Viscosity Stability	Good	Excellent	Best	Average
Cooling Ability	Best	Excellent	Good	Average
Demulsibility	Average	Good	Excellent	Best
Filterability	Best	Excellent	Good	Average
Anti-Foam	Good	Best	Excellent	Average
Wetting	Best	Good	Excellent	Average
Bearing Protection	Average	Good	Excellent	Best
Oxidation Stability	Good	Excellent	Best	Average
Rust Protection	Average	Good	Excellent	Best
Strip Residue	Best	Excellent	Good	Average
Shape Control	Best	Excellent	Good	Average



Wallover

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