



# HMF

HOT ROLLING MILL LUBRICANT



**KIMYA**  
CHEMICAL TECHNOLOGIES



## HOT ROLLING MILL LUBRICANT

A new generation semi-synthetic fluid specifically formulated to be water dispersible and designed for use in a multitude of hot mill applications where lubrication demand is high: Hot strip mills, Bar mills, Structural mills, Tube mills, etc.

**HMF** technology helps Clients to achieve their production targets and successfully implement debottlenecking programs.

Kimya is the only company that provides hot mill lubricant, proven custom-built lubricant application system and a continuous service program.

## Hot Rolling Oil Technology

**HMF** is applied by forming a dispersion in the cooling water which is then sprayed onto the work rolls. Lubrication can be controlled by the concentration of oil in water. Thanks to its chemical polarity, **HMF** plates out on the rolls and strip surface, providing excellent lubrication in the roll bite.

**HMF** provides extended roll life by reducing wear and, thereby, provides good surface quality and contour on longer work schedules. As a result, users of **HMF** obtain substantial increases in tons per hour and corresponding decreases in production costs.

This technology has been used in very severe applications such as rolling of stainless steel material providing a substantial reduction in friction and wear of work rolls and significant improvement of the surface quality of the material.

## Kimya Experience

Kimya has gained more than 35 years of experience in the formulation and application of hot rolling lubricants for a different range of Hot Rolling Mills and steel grades.

Kimya's team of specialist in hot rolling lubricants consists of:

### Field service team

Collect mill data, commissioning and start-up of the hot rolling oil supply system, trial assistance and data collection for performance monitoring.

### Hot Rolling Mill Specialists

Monitor Mill performance during lubricant trials, support Customers in mill optimizations, debottlenecking and troubleshooting.

### R&D Chemists

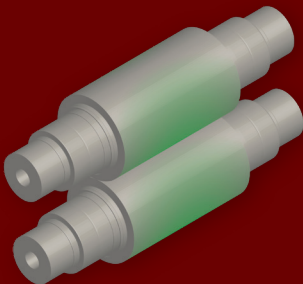
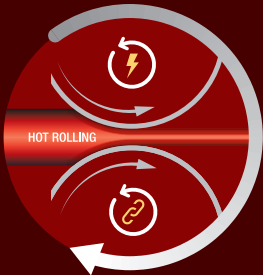
Select and customize lubricant formulation based on the Mill specific characteristics, conduct chemical analyses.



## HMF Benefits

Kimya **HMF** state-of-art Hot rolling Mill Lubrificant help Clients to achieve their production targets and successfully implement debottlenecking programs.

Here are the main benefits we can deliver.

| Features                                                                                                                                                                                  | Advantages                                                           | Benefits                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|  <p>Roll surfaces and contour maintained for a longer period of time because of reduced roll wear.</p> | Rolls can be left in the mill longer.                                | Improved mill efficiency due to reduced roll change delay and, therefore, increased tons per hour.                         |
|                                                                                                                                                                                           |                                                                      | Lower roll cost per ton of steel produced.                                                                                 |
|                                                                                                                                                                                           |                                                                      | Elimination of partial roll change.                                                                                        |
|                                                                                                                                                                                           |                                                                      | Reduced dressing and bearing change costs as there are less rolls to process.                                              |
|                                                                                                                                                                                           | Improved product, surface quality and contour.                       | Less customer rejections. Therefore, increased profitability.                                                              |
|                                                                                                                                                                                           |                                                                      | Increased share of the market often is a result of better product quality.                                                 |
|                                                                                                                                                                                           | Reduction in the salt and pepper scale that is caused by worn rolls. | Easier pickling at higher line speeds with reduced acid consumption. Therefore, lower production costs.                    |
|                                                                                                                                                                                           |                                                                      | Less customer rejections and increased market share also apply here.                                                       |
|  <p>Reduction in rolling friction and forces.</p>                                                      | Lower mill amperage demand.                                          | Reduces peak power demand on which electrical energy billings are based.                                                   |
|                                                                                                                                                                                           |                                                                      | Allows increase reduction (drafting) in mills which are under-powered. Therefore, larger market share and greater profits. |



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