



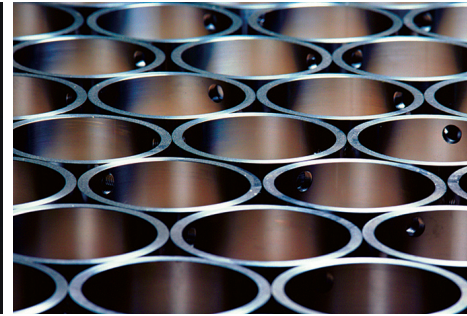
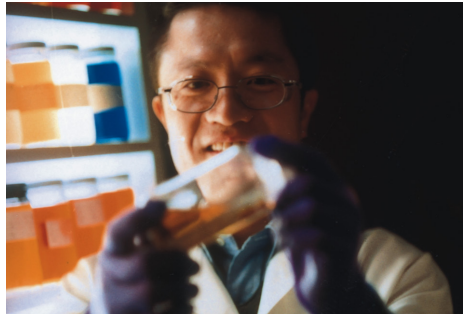
Quaker is a global supplier of cleaner products that encompass a wide range of industries including automotive, appliance, container, and steel manufacturing. Quaker's entry into the cleaning business was prompted by our integrated approach in meeting our customer's expectations. As a result, Quaker provides cleaners to remove rolling oils, corrosion preventives, lubricants, and miscellaneous soils from floors, housings, and machinery.

Quaker's cleaning product line for the Steel Industry consists of high solid liquid alkaline cleaners that are cost-effective in removing surface oils and surface irons from the steel strip prior to electro-plating and hot-dip galvanizing operations.

Quaker is the only cleaner supplier that has developed several methods for measuring the cleanliness of the strip after the cleaning section; namely, our "Cleaner Trolley" where the wiped surface area is measured, and our "fixed roller" method, where the amount of blackness that is removed from the strip surface is quantified. Quaker's cleaner product line consists of the following:

1. Process Cleaners
2. Floor and Housing Cleaners
3. Rinse Aid Additives
4. De-foamer Additives
5. Multi-Package Cleaners
6. De-scaling Cleaners
7. Solvent Based Cleaners

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line cost.



Quaker Technologies provide your mill with the following benefits:

- "Green" cleaners that meet Environmental Regulations (e.g. NPE free)
- "Green" cleaners that improve waste treatment processing of cleaner effluents
- Substantial savings to our customers through a reduction in coating defects
- Allowance of higher production speeds via improved cleaning performance
- Operation at significantly lower product concentrations
- Quaker has the technology to provide measures for strip cleanliness

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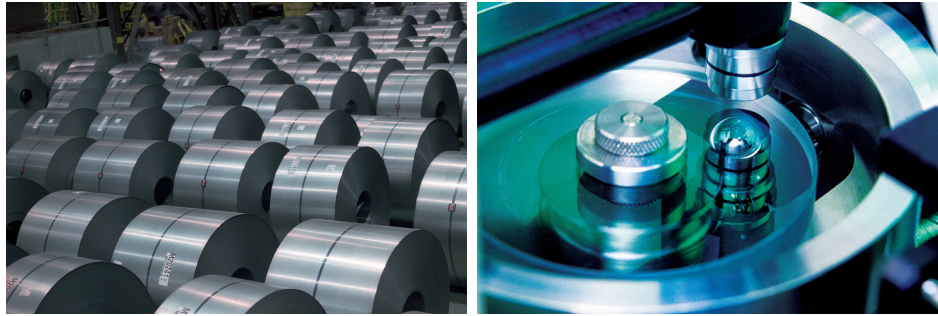




Quaker is the world-leading supplier of cold rolling oils, with its QUAKER QUAKEROL® and TINNOL® line of products. These lines consist of natural, semi-synthetic, and synthetic esters for base lubrication and a wide range emulsion or cationic dispersion packages. Quaker's cold rolling products also contain additive packages for extreme pressure and corrosion in order to optimize performance based on the demands of each process.

The wide range of ester, emulsifier, and additive packages allows Quaker to formulate the optimum product for each individual operation. Products are designed to provide the lowest total cost for the entire process, including those downstream of the cold mill. QUAKER QUAKEROL® and TINNOL® products can maximize mill production, improve strip and mill cleanliness, and reduce consumption.

Quaker provides extensive technical support for the cold rolling product line to ensure the optimal application. Product support personnel work with customers to recommend best practices based on global process experience. This combination of premium products and process expertise is what makes Quaker the world leader in cold rolling lubricants.



Quaker Technologies provide your mill with the following benefits:

- Greater productivity
- Improved cleanliness
- Reduced consumption
- Improved roll life
- Less defects
- Reduced waste treatment concerns

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Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line cost.



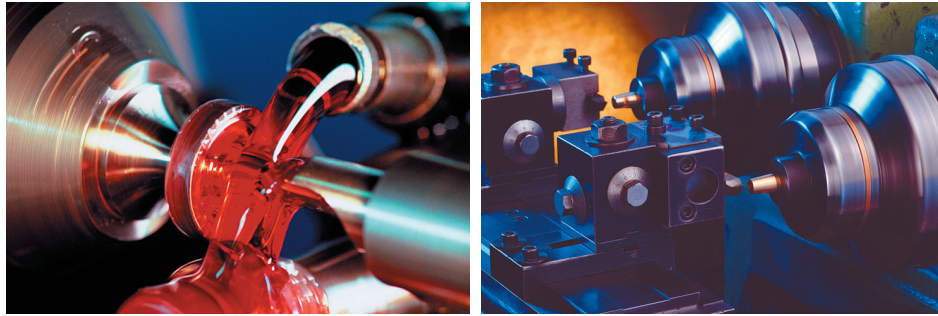


Quaker manufactures the FERROCOTE® product line, the most widely approved corrosion preventives for use on hot dip galvanized, electrogalvanized, cold rolled, hot rolled, pickled, hot dip galvanized, dual phase and various other plated steels. This line consists of mineral oil based, emulsifiable and solvent diluted, for use on blanks or coil stock, offering excellent resistance to humidity-related corrosion and staining resulting from long term storage of metal inventories.

FERROCOTE® products are widely recognized for being formulated with downstream processes in mind, including: metal fabrication, welding, cleaning, phosphating, enameling and painting, to name a few. Quaker's mineral oil based products are easily applied using electrostatic oiler equipment, as well as conventional methods.

QUAKER DRYCOTE®, Quaker's hot melt, dryfilm technology offers an excellent opportunity to reduce total applied costs related to processes requiring additional lubrication, corrosion protection, and improved process consistency beyond typical corrosion preventives in the market today. This technology can be applied electrostatically, offering extensive flexibility for application and reduced energy costs compared to water-based, oven cured dryfilms. The entire series consists of low VOC products (typically 1-3% by weight) that do not contain any solvents, making our product line more environmentally friendly compared to solvent cured technology. In addition, they can be applied at lower coating weights than most water-based technology, resulting in less die build-up of powdered material and subsequently improved quality and line up-time.

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line cost.



Quaker Technologies provide your mill with the following benefits:

- Industry standard for approved corrosion preventive
- Excellent resistance to humidity and staining
- Formulated with the downstream process in mind
- Significant reduction in total applied cost
- Greater energy reductions
- Lower environmental impact
- Improved product quality and line up-time

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Known the world over for delivering high quality and high performance, Quaker QUINTOLUBRIC® fluids meet the rigorous demands of today's Steel Industry. The QUINTOLUBRIC family of fluids includes HFA (high water content), HFC (water glycols), and HFD (water free synthetics) products. These products meet various ISO standards and a number of Quaker's synthetic HFD fluids are Factory Mutual approved as less hazardous.

Quaker HFA fluids are designed to operate in water hydraulic equipment. Water hydraulic equipment can operate with water as the hydraulic medium, but to avoid corrosion in components and piping, inhibit bacterial growth in the fluid, and extend component life, specific additives are formulated into HFA fluids. HFA fluids are ideal for use in Steel mills, underground longwall mining equipment, and any other system designed for water hydraulic equipment. Quaker offers both HFA-E (emulsion) and HFA-S (synthetic) concentrates. Operating conditions will determine the technology that's right for your application. Common in-use concentrations for HFA fluids range from 1 to 5%.

Quaker HFD fluids are designed to operate in oil hydraulic equipment, and they provide excellent lubrication. Quaker markets fire resistant HFD-U fluids that are based on synthetic polyol esters and natural esters. QUINTOLUBRIC 888 Series fluids as well as QUINTOLUBRIC 855 and QUINTOLUBRIC 822-450 are FM approved. Quaker HFD-U fluids are all readily biodegradable making them ideal for use where environmental impact is an important consideration. Quaker HFD-U fluids are globally available. As the market leader in ester based fire resistant hydraulic fluid technology and having more than 35 years of experience with the application of these fluids in the Steel, Non-Ferrous, Mining, Automotive and Power generation- industry, Quaker is often recommended by OEM's as the preferred supplier for HFD-U fluids.

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line cost.



Quaker Technologies provide your mill with the following benefits:

- Fire-resistant FM approved products
- High ignition temperature and low heat release
- Offer properties that limit the spread of fire
- Provide excellent shear stability
- Lower environmental impact
- Reduced waste treatment concerns

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Quaker has been on the forefront of technological innovation for the Steel Industry for many decades, especially in the area of Hot Rolling Lubrication. We have helped many customers overcome problems and increase their bottom-line production since our first patents were introduced in the 1960's.

Quaker's current Hot Rolling technologies have eliminated waste treatment concerns by drastically reducing the amount of lubricant needed to achieve extended roll life, greater energy reductions and roll force reductions than standard lubricants on the market. While other companies focus on roll force reduction, Quaker's focus has been on micro-chemical interactions on the roll surfaces leading to much longer roll life and much greater energy reduction at comparative, and in many cases lower, roll force reductions. These significant achievements have been accomplished through chemistry as well as unique application techniques.

Quaker is the only company in the world to install a continuous oil system at CSP mills, and to perfect and re-introduce new application techniques and equipment designs to greatly improve efficiencies on many applications, including edger roll, roughing mill and finishing mill operations. Our goal is, and always has been to make our customers successful in their chosen pursuits.

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line cost.



Quaker Technologies provide your mill with the following benefits:

- Higher speeds
- Reduced or no cleaning of headers and nozzles
- Eliminating waste treatment concerns by drastically reducing the amount of lubricant needed to achieve extended roll life
- Greater energy reductions than standard lubricants on the market, especially with pickle line savings
- Improved back-up and work roll life
- Advanced water affluency. Quaker products use 90% less product in solution compared to competing products
- Technically superior hot rolling lubricant application equipment
- Lower environmental impact on water and carbon
- Lower finished goods process bottom-line costs

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The Passivation process converts the surface into a protective corrosion preventing film. Quaker's portfolio of PRIMECOAT™ Surface Treatments set an industry standard for improved corrosion prevention, strong adhesion to paints, good lubrication, and resistance to humidity and staining. PRIMECOAT™ reflects the newest fluoride-free and chrome (6)-free technologies, concentrating on increased corrosion protection of the zinc-coated surface. The chrome (6) – free technologies are an environmentally friendly and non-hazardous alternative to technologies that contain hexavalent chromium, a hazardous and carcinogenic substance. Quaker's Passivation Surface Treatments include:

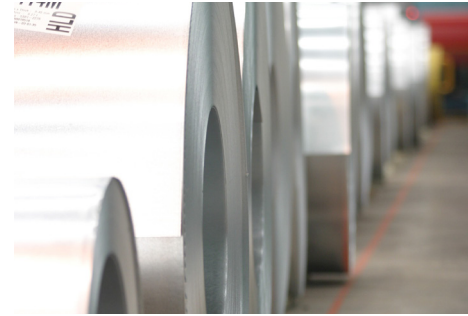
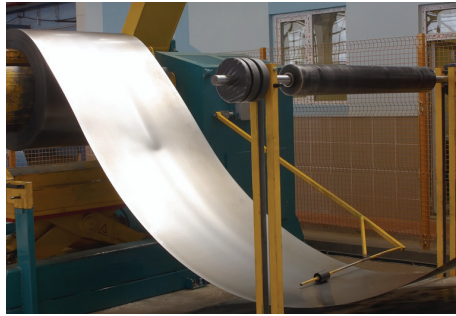
Pre-treatment PRIMECOAT™ Z 132 C is a no-rinse, environmentally friendly, VOC and toxic heavy metal-free conversion product for the pre-treatment in coil coating applications. It provides excellent paint adhesion in combination with all coatings, is suitable for indoor and outdoor application, and is approved for use on domestic appliances.

Chromate-free passivate PRIMECOAT™ Z 838 provides a fully transparent, colorless corrosion protection layer on galvanized steel strip achieving enhanced corrosion protection even at thin layers. A reduced galling in roll forming operations completes the strong performance of this novel passivate.

Thin organic coating (TOC) PRIMECOAT™ Z 935 forms a transparent layer for enhanced corrosion protection and "anti-fingerprint" properties.

The PRIMECOAT™ Series exhibits reduced total applied cost and energy consumption, and improved product quality.

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line costs.



Quaker Passivation Surface Treatments provide the following benefits:

- Fully transparent appearance
- Excellent corrosion protection
- Excellent adhesion properties with paints and organic coatings
- Fluoride-free and chrome (6)-free
- Restriction of Hazardous substance (RoHs) compliant
- Waste from Electrical and Electronic Equipment (WEEE) compliant
- Excellent price-performance ratio
- Vanadium free

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Quaker Chemical Management Services (QCMSsm) is a comprehensive management approach that has helped some of the largest steel manufacturers achieve maximum value by using chemical products in the most effective way. It is based on forming a strategic relationship with Quaker as a chemical service provider. We take responsibility for the performance of major process chemicals and the entire chemical system as well as continuous improvement.

The QCMSsm approach is proven around the globe. But, it is the people who staff our programs who really make a difference. Quaker has some of the most-respected, best-trained chemical managers in the industry. We have found that their success comes from critical thinking, the ability to support and influence positive changes, and the drive for continuous improvement. This is what separates us from the rest.

1. **Chemical Procurement:** Managing the organization's inventory and supply chain.
2. **Chemical Systems Management:** Managing and maintaining chemical-based systems, documenting results, and recommending any necessary action plans.
3. **Usage, Financial & Environmental Reporting:** Providing information and reports on the use and application of chemicals for each function.
4. **Environmental, Health & Safety:** Providing information, training and reporting relating to chemicals, and maintaining the customer's Material Safety Data Sheets (MSDS).

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line costs.



Quaker Chemical Management Services provides your mill with the following benefits:

- Increased manufacturing uptime via reduced chemical maintenance-related issues
- Stability of chemical related processes
- Reduction in the total cost through reduced chemical consumption and waste
- Timely, reliable, consistent data & reporting with integrity
- Ease of administration & reduction in paperwork
- Reduced health and safety exposure to chemicals
- On-site expert in the use and application of chemicals

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Quaker is a global supplier of wet temper fluids for the steel manufacturing industry with its QWERL® line of products. These products are designed to provide superior lubricity, strip cleanliness and good corrosion protection. QWERL® wet temper fluids are applied directly to work rolls, providing excellent detergency to remove dirt and contaminants generated in the tempering process. These products are customized to fulfill demanding mill operating conditions and are formulated with a lubrication package for either standard or high temper mill extensions.

Quaker's wet temper fluids for the Steel Industry are designed with good trapped water corrosion prevention and are compatible with most rust preventive oils and surfaces, including galvanized steel.

The QWERL® line contains both nitrated and nitrite-free products for batch mills. QWERL® 263 is a very effective low use concentration product used on galvanizing lines. The QWERL® line also includes solvents when water based wet temper fluid is not an option.

Quaker also provides on-site experts to support the wet temper product line. Product support personnel work with customers to recommend best practices based on global process experience. They will work with you to analyze your needs, solve your problems, and provide assistance in implementing a comprehensive plan to increase your metal production potential. This integrated approach with product and process expertise is what makes Quaker a leader in wet temper fluids.

Using Quaker's Fluids, Coatings, Greases and Surface Treatments adds up to your lowest bottom-line costs.



Quaker Technologies provide your mill with the following benefits:

- Nitrate-free corrosion package
- Compatibility with galvanized steel surfaces
- Extended roll life with reduced roll changes for dirt/zinc pick-up
- Improved strip quality – less rolled dirt defects
- Premium corrosion prevention
- High flash point and low odor for a safer work environment

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These Quaker Products Add Value At Every Step

PRODUCT	APPLICATION	DESCRIPTION
ROLLING OILS		
QUAKEROL®	Cold Rolling Pickle Line Tin Rolling	Effectively reduces a multitude of steel alloys to the gauge and shape required by the automotive, appliance, and construction industry.
QUAKEROL® HB Series	Hot Rolling	Provides a sacrificial conforming layer on work rolls and back-up rolls that significantly extend roll surface life.
QWERL®	Roll Grinding Wet Temper	A true solution roll grinding/wet temper fluid specifically formulated for maximum detergency and corrosion protection.
CORROSION PREVENTIVES		
FERROCOTE®	Finishing Galvanize Lines EGL Temper Mill Pickle Lines Rewind Lines Cut-to-length Lines	Offers medium to long term corrosion and staining protection for ferrous and non-ferrous surfaces to be stored and shipped in a variety of climate conditions.
QUAKER DRYCOTE®	Finishing Galvanize Lines EGL Pickle Lines Rewind Lines Cut-to-length Lines	A solid film lubricant that is mill applied preferably using electrostatic equipment. This product dries instantaneously to a solid, non-migrating coating providing superior lubrication, corrosion resistance and stain protection for coils traveling from metal producers or coil coating facilities to stamping plants.
CLEANERS		
QUAKERCLEAN®	Annealing Coatings Lines	Removes surface oils and surface irons from the steel strip prior to electro-plating and hot-dip galvanizing operations.
FIRE HYDRAULIC FLUIDS		
QUINTOLUBRIC®	Hot Rolling Slab Casting Cold Rolling	These fluids meet various ISO standards and a number of the HFD fluids are FM approved as less hazardous. HFA fluids are designed to operate in water hydraulic equipment. HFD fluids combine reasonable to good fire resistance properties with excellent lubrication performance.
PASSIVATION SURFACE TREATMENTS		
PRIMECOAT™	Galvanize Lines Zinc/Aluminum Lines	<p>Pre-treatment: zero VOCs, and sets an industry standard for approved corrosion prevention, strong adhesion to paints and lubrication even at low coating weights.</p> <p>Passivate: Maintains a fully transparent appearance even at “high” layer weights, and the excellent lubrication it provides reduces galling in roll forming operations.</p> <p>Thin Organic Coating (TOC): Forms a transparent layer for enhanced corrosion protection and “anti-fingerprint” properties.</p>