



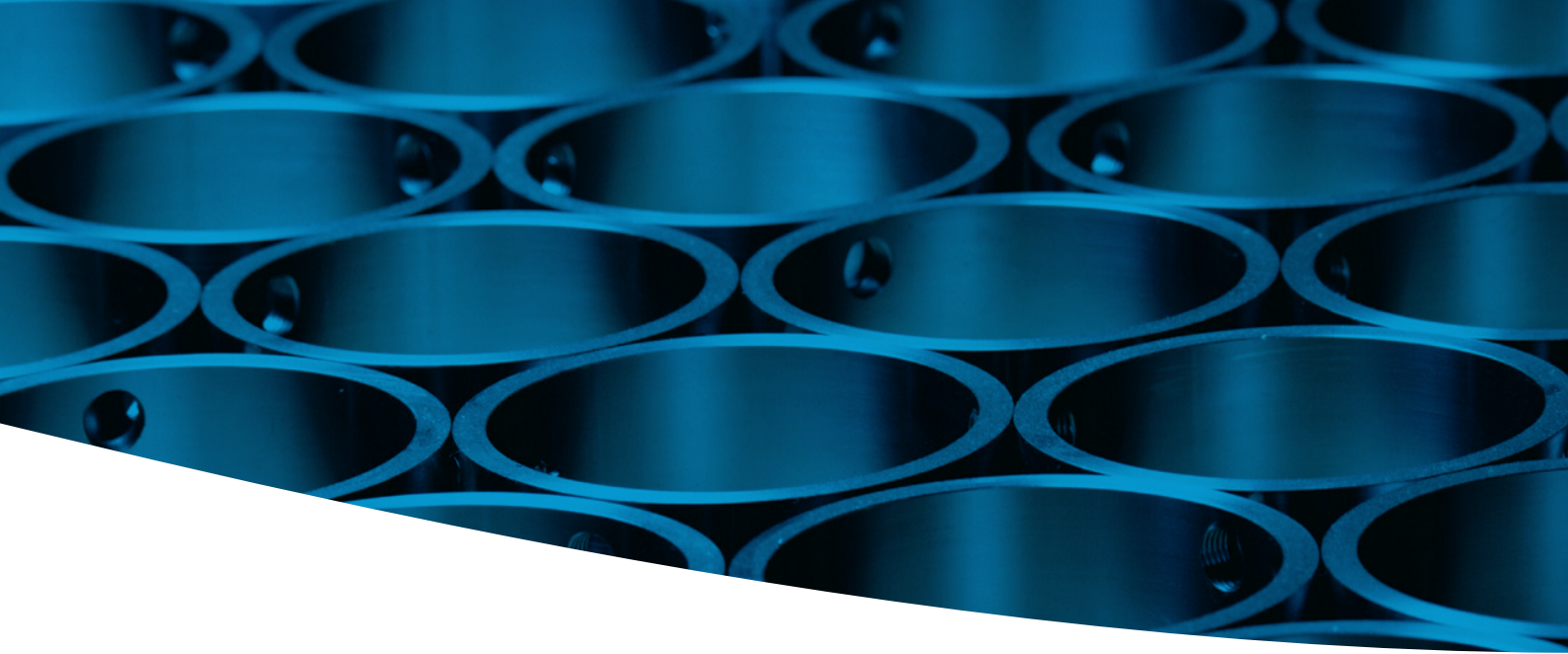
TUBE AND PIPE



Seamless Tube and Pipe Production.

Integrated "front to back" approach. Metalworking process fluids and coating for each process of the tube manufacturing process.





The Quaker Houghton Approach

Quaker Houghton has the history, products, experts and global presence to identify and solve your specific technical and business challenges. We understand the processes and applications inside and out – and can provide improvements in both product technology and application equipment.

Quaker Houghton can integrate your entire process – from casting, forming, and finishing, to coating – maximizing your productivity while ensuring process and chemical compatibility. We put environmental compliance and worker health and safety at the front of everything we do.

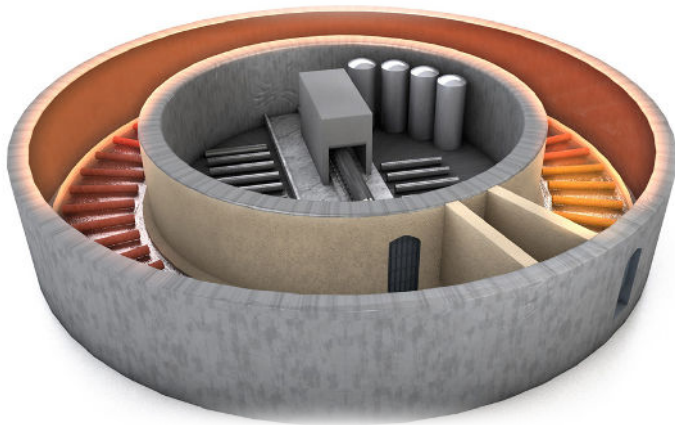
We utilize data-based decision making to analyze and improve your processes. The extensive global database of tube and pipe applications allows Quaker Houghton to capture and share best practices more effectively and efficiently.

We Bring Our Depth of Knowledge and Resources to Facilitate Your Growth

Quaker Houghton's global focus on the tube and pipe industry provides unmatched dedication and commitment to this industry. This unique "front-to-back" portfolio of metalworking process fluids and coatings know-how differentiates Quaker Houghton from the competition. Quaker Houghton leverage this expertise and technology with global resources to provide custom solutions at the local level.

On the front end, our leading position in process fluids and specialty lubricants for steel mills provides synergies and benefits in the applications of fire-resistant hydraulic fluids, specialty greases and hot forming and rolling lubricants for seamless pipe production. Further downstream, we lead the way with innovative metalworking fluids for higher performing pipe-threading applications and stringent finishing operations. At the back end, our coatings – including environmentally friendly solvent-based coatings, fast-drying, low-VOC, water-based coatings and UV coatings – can be customized to meet increasing market performance demands.

Casting



QUINTOLUBRIC® Series

Fire-Resistant Hydraulic Fluids

- FM Approved
- Nontoxic / Non hazardous
- Biodegradable
- Oxidation stability

QUAKERTEK™ Series

High Performance Greases

- Resists water washout
- Excellent corrosion protection
- High temperature performance
- Extended equipment lifetime

QUAKEROL® Series

General Lubricant

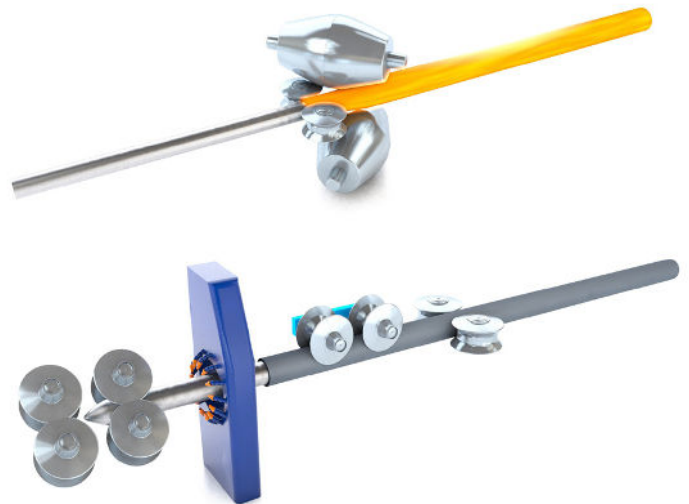
- Excellent lubrication
- Extends roll life
- Load reductions
- Eliminates roll peeling
- Low application rates and reduced consumption

QUAKERTEK™ Series

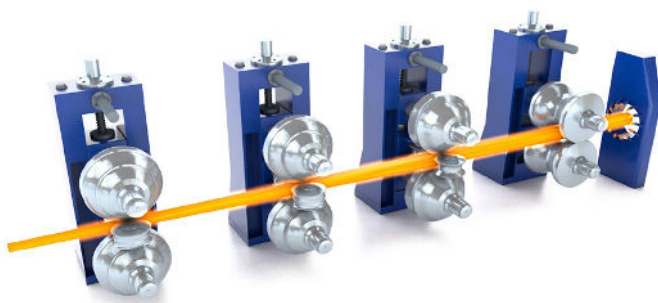
High Performance Greases

- Resists water wash out
- Excellent corrosion protection
- High temperature performance

Hot Pipe Lubrication/Piercer/ Expander/Elongator



Sizing/Straightening/ Calibration



QUAKEROL® Series

General Lubricants

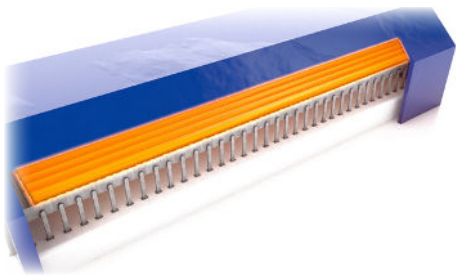
- Excellent lubrication
- Extends roll life
- Load reductions
- Eliminates roll peeling
- Low application rates and reduced consumption

QUAKERCOOL® Series

General Coolants

- Good fines setting
- Good detergency
- Good lubrication

Heat Treatment



QUINTOLUBRIC® Series

Fire-Resistant Hydraulic Fluids

- FM Approved
- Nontoxic / Non hazardous
- Biodegradable
- Oxidation stability

QUAKERCOOL® Series

General Coolants

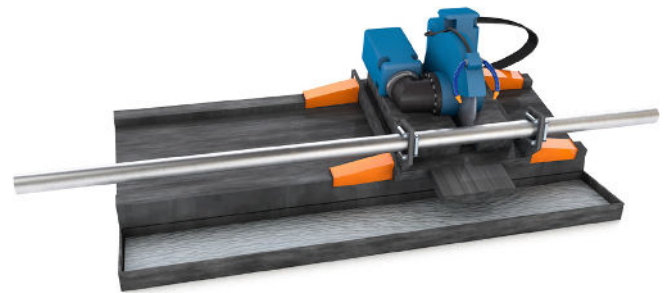
- Good cooling
- Good lubrication
- Extends tool life
- High wetting ability
- Offers temporary corrosion protection
- Biostatic – Long sump life

QUAKERCOOL® Series

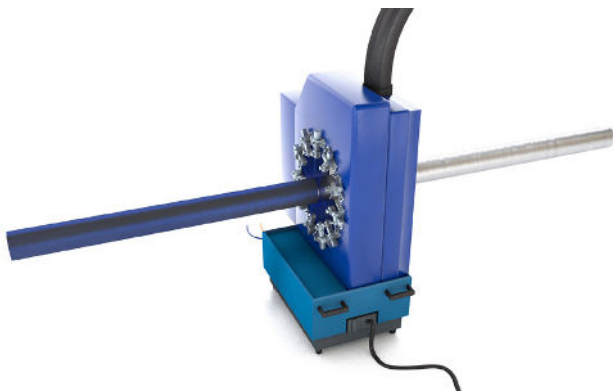
Cutting Fluids

- Good lubrication
- Long tool life

Finishing/Cutting/Threading



Corrosion Protection



QUAKERCOAT® Series

Protective Coatings

- Water based
- Solvent based
- UV technology
- Hybrid technologies
- Low VOC solvent-based coatings
- Zero VOC exempt solvent-based coating

Hydrotesting

QUAKERCOOL® Series

Coolants

- Good corrosion protection
- Excellent tramp oil rejection properties
- Excellent anti-white rust
- High detergency and wetting
- Offers temporary corrosion protection
- Biostatic – Long sump life
- Cost effective

FERROCOTE® Series

Corrosion Preventives

- Excellent corrosion protection
- Good water displacement properties
- Low residue
- Easy to clean
- Suitable for cold rolled, hot rolled, pickled, and galvanized

Partners in your success

PROCESS COSTS REDUCTION

Thanks to TCO (total cost of ownership) projects, our teams, after a detailed investigation of your plants, will suggest the best series of products, working conditions and operating instructions that can achieve a significant reduction in cost of 10-25% in general.

UP TO 35% INCREASED TOOL LIFE: By implementing a Quaker Houghton coolant into its threading process, an OCTG pipe producer increased tool insert life, decreased downtime, and reduced cost per joint.

\$500K IN ANNUAL COST SAVINGS: An ERW tube & pipe manufacturer integrated a full process fluid solution of Quaker Houghton's coolants, bearing grease, gearbox lubrication, cleaner, corrosion inhibitor, and coating for improved process efficiencies and quality and lowered operating costs.

ELIMINATED PIPE CORROSION ISSUE:

With Quaker Houghton's coating and its dedicated service, a tubular products company was able to reduce solvent usage and VOC complaints, improve adhesion, eliminate equipment downtime, and lower costs.

OVERALL COST SAVINGS OF \$900K: A welded steel tube manufacturer introduced a Quaker Houghton coating that dramatically reduced corrosion issues which resulted in significant savings from costs associated with non-conforming products.

We offer a range of services to help the world's most forward-looking metalworking companies run even more efficiently and effectively



QH FLUIDCARE™
Managed Services



QH Technical
Services



QH Engineering
Services



QH Equipment
Solutions

Forward Together™

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