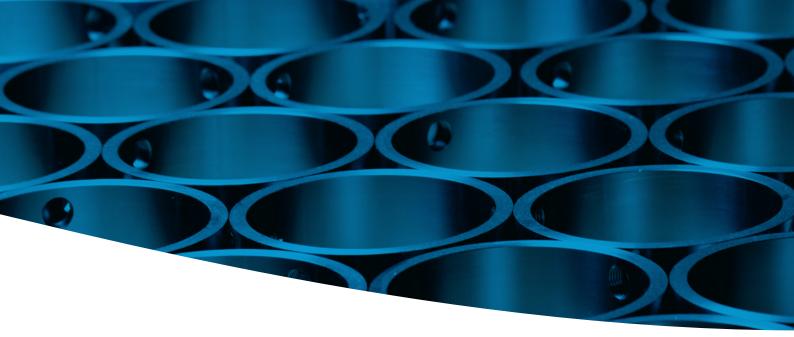


Welded Tube and Pipe Production.

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





The Quaker Houghton Approach

Quaker Houghton have 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

We integrate your entire process - from forming and finishing, to coating maximizing your productivity while ensuring process and chemical compatibility

Quaker Houghton puts environmental compliance and worker health and safety at the front of everything we do.

We utilize data-based decision making to analyse and improve your processes. Our extensive global database of tube and pipe applications allows us 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. Our unique "front-to-back" portfolio of metalworking process fluids and coatings know-how differentiates us from the competition. We 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 forming and rolling lubricants for welded pipe production. Further downstream, we lead the way with innovative metalworking fluids for higher performing pipe-cutting applications and stringent finishing operations. At the back end, our corrosion preventatives and coatings - including environmentally friendly solvent-based coatings, fast-drying, low-VOC, waterbased coatings and UV coatings - can be customized to meet increasing market performance demands.

Coil Slitting and Cleaning



QUAKERCLEAN® Series

Cleaners

- Good detergency
- Excellent mill lube removal
- Good compatibility with downstream coolants

FERROCOTE® Series

Corrosion Preventives

- Excellent corrosion protection
- Mill applied lubrication
- Easily to clean
- Process compatibility

QUAKERCOOL® Series

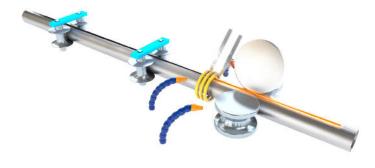
General Coolant

- Excellent fines handling
- Good lubrication
- Good detergency
- High wetting ability
- Offers temporary corrosion protection
- · Biostatic Long sump life
- Mineral oil free

Forming



Welding/Scarfing



QUAKERCOOL® Series

General Coolant

- Excellent cooling
- Good lubrication
- Good detergency
- Good chip setting
- · Low conductivity, eliminates arcing
- Good fines handling
- Extends tool life

QUAKERCOOL® Series

General Coolants

- Good fines handling
- Excellent cooling
- Good lubrication
- Good corrosion protection

FERROCOTE® Series

Corrosion Preventives

- No smoke
- Good lubrication
- Excellent on stainless

Sizing/Calibration



QUAKERCOOL® Series

General Coolants

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

QUAKERCOOL® Series

Cutting Fluids

- Shearing and sawing
- Good lubrication
- Extends tool life

Cut Off/Threading



Corrosion Protection



QUAKERCOAT® Series

Protective Coatings

- Excellent corrosion protection
- Hybrid technologies
- Water based
- Solvent based
- UV technology
- Environmentally friendly
- Low VOC solvent based coatings
- Zero VOC exempt solvent based coatings

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

Hydrotesting

QUAKERCOOL® Series

Coolants

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

Partners in your success

\$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 Engineering Services



QH Equipment Solutions

Forward Together™

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