



TRANSPORTATION



Advancing global industry. Together.

Fluid Solutions for EV Cylindrical & Prismatic Battery Can Manufacturing



The Quaker Houghton Difference

Quaker Houghton is the leading global supplier to the automotive industry. From passenger cars to heavy off-road equipment, we provide manufacturing fluids for a wide range of automotive and transportation needs. Together with our engineering and equipment expertise, we have the solutions to drive productivity, improve quality, and reduce operating costs.

Quaker Houghton has a long history of developing metal forming fluids and we have a significant supply position for these applications from beverage can drawing to heavy automotive forming. With this experience, Quaker Houghton is well positioned to support the growing demand of the battery market.

EV Battery Can Solutions that Optimize Performance

From the initial blank preparation, to deep drawing, cutting, cleaning and protection, Quaker Houghton has the product technology to meet EV prismatic and cylindrical battery can manufacturing needs. Our portfolio includes metal forming fluids, metal removal fluids, cleaners, rust preventives and more.

Prismatic Cans within a Typical EV Battery Pack



Metal Forming Fluids

We have a deep understanding of the forming and deformation process, and our high performance metal forming fluids provide the following benefits:

- Easy release of shell from the die, reducing rejection rate
- Enhanced lubricity package
- Improved die life
- High cleanability
- Bright surface post-forming both inside and out
- Easily applied by spray or rolling
- Chlorine-free

Metal Cleaning Fluids

Cleanliness is a critical factor in the production on EV batteries. Minimising residues and compatibility with downstream assembly processes are key to success. We understand the nature of this high production application and the subsequent challenges it creates for the cleaning process. Quaker Houghton has extensive cleaning application and formulation experience and we focus on these specific issues.

- Fast acting cleaners to minimise process time
- Long system life with high loading capability, minimising refills
- Simple concentration control
- Synergistic technology – developed in conjunction with our metal forming fluids
- High levels of cleanliness with minimal residues
- Excellent oil splitting characteristics
- VOC Free & REACH Compliant
- Low temperature cleaning

We Never Stop Innovating. So You Can Continue to Succeed

We know your application is unique. With research, development, and innovation at the core of our business, we are able to deliver advanced fluid solutions to meet your specific manufacturing requirements. We have dedicated resources actively working on specialized product technology for the production of EV Battery cans. Examples of our development capabilities for deep drawing and ironing include a number of techniques enabling us to simulate and evaluate key process characteristics in our laboratories including:



Cup Draw - Drawability:

This standard test is carried out on a hydraulic press to establish deep-draw capacity of the lubricant.



BUP Test - Formability:

By Limit Blanking Force and ironing. This allows us to simulate deep-drawing operations and further ironing steps.



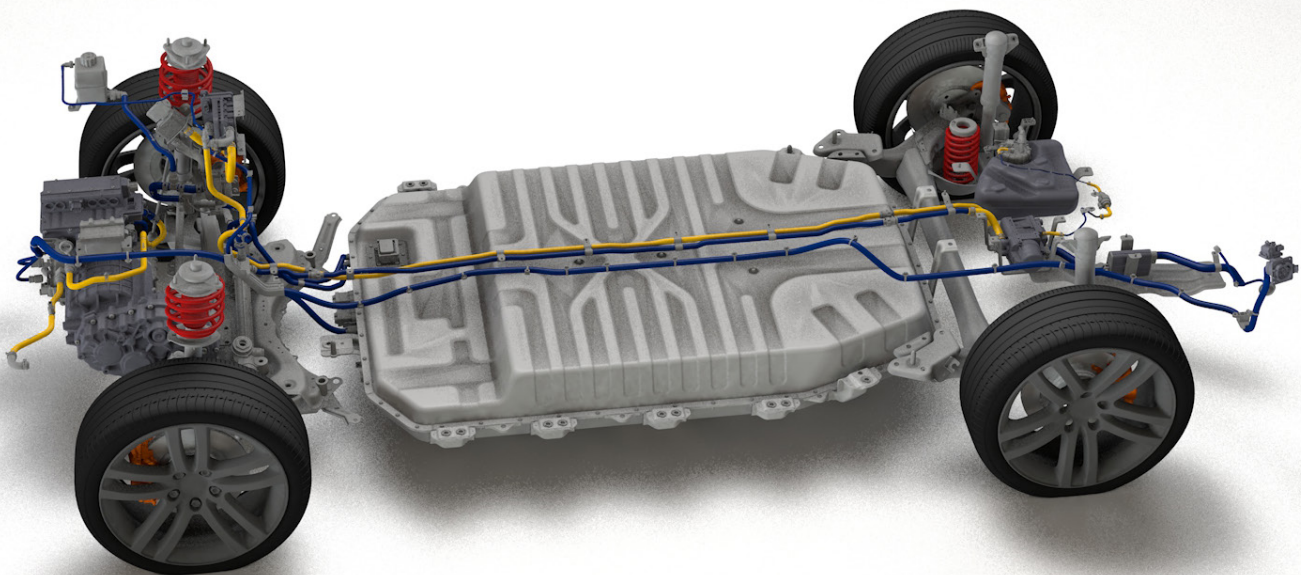
Ball on Plate - Can-Drawing & Ironing:

This test is used to assess the performance of a lubricant in ironing can production.

Forward Together

Innovation is at the core of Quaker Houghton. When it comes to improving your overall business and getting the most from your process equipment, you need the expertise and experience of an established and recognized solutions provider. With chemists and application experts around the globe, it is our commitment to be at the forefront of sustainable and economical solutions for the automotive industry. As the market continues its move toward light-weighting and electrification, Quaker Houghton is your key partner for the manufacturing challenges of today and tomorrow.

Battery Electric Chassis



Forward Together™

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