

# Forming the Future. Together.

Overview of Products for the Metal Forming Industry





# Applied Intelligence: The Quaker Houghton Difference

Quaker Houghton offers an industry leading line of Metal Forming Fluids that provide lubrication, cooling and corrosion protection for metal drawing and stamping operations. Our value proposition is based on advanced technology and unmatched performance. We take a solution driven approach comprised of world-class products and services to reduce operating costs, improve productivity, increase product quality and strengthen our customers' competitive advantage. We have a dedicated team of technical and applications experts to support our customers' process and operations requirements. Our comprehensive Metal Forming Fluid line includes:

- Soluble Oil Lubricants
- Vanishing Oil Lubricants
- Synthetic Lubricants
- Hot Melt Lubricants
- Straight Oil Lubricants
- Dry Film Lubricants

### **Optimizing Your Operations**

- Automotive Stamping
- Component Stamping
- Deep Drawing
- Cold Heading
- · Fine Blanking
- · Lamination Stamping
- Blanking

- Hydroforming
- Roll Forming
- Tube Forming
- Tube Bending
- Extruding
- Hot Stamping
- · Wire Drawing

## Synthetic Lubricants

- Improved process cleanliness
- · Residues easily wash off
- Good weld-through characteristics

DRAWSOL® WM 4740 is a versatile product that is suitable for ferrous, stainless, and aluminized alloys. It provides superior die and cutting edge protection and is a heavy-duty product for difficult operations.

HOUGHTO-DRAW® 7047-EP is a medium to heavy-duty lubricant for drawing and forming operations on both ferrous and non-ferrous metals. HOUGHTO-DRAW® 7047-EP has a unique EP additive package to provide enhanced lubrication while staying cost-effective. This lubricant also provides good indoor corrosion protection for formed parts.

QUAKERDRAW® 504 HV is a medium to heavy duty synthetic drawing lubricant used for stamping large panels, smaller components, and other forming operations. QUAKERDRAW® 504 HV can be used at a range of dilutions to best suit the lubrication needs of the process. This lubricant is suitable for ferrous and non-ferrous metals and provides good indoor corrosion protection for formed parts.

### Vanishing Oil Lubricants

- Low or no residue lubricants
- · High flash point product options
- Simple application for a variety of processes

CINDOL 4611 is light to medium duty vanishing oil for ferrous and non-ferrous applications. The odorless carrier readily evaporates to leave minimal residue on stamped parts, eliminating cleaning needs.

VANISHING OIL 3 HF is a light duty stamping and forming oil for thinner gauge parts and contains a special lubricity additive for processes requiring a higher performance level than a standard vanishing oil. It leaves very slight residue to allow for increased compatibility with other processes.

**VANISHING OIL 601 N** is a low viscosity stamping and drawing oil containing polar additives for lubrication. It is a vanishing lubricant for stamping and drawing of medium thickness ferrous materials. VANISHING OIL 601 N leaves a minimal residual film and does not react with paint.



### Soluble Oil Lubricants

- Water-extendable products provide flexibility across operations
- · Hard and soft water stability
- Recyclable options with resistance to biological attack

**DRAWSOL® WM 950** is a cost effective lubricant for a variety of forming applications. It is an excellent choice for progressive die operations. This lubricant can be used at a wide range of concentrations to support medium duty stamping and deep drawing on heavy gauge steel and tough alloys.

**DRAWSOL® 850X4** is a compounded blend of extreme pressure agents, lubricants, and inhibitors and has been specifically formulated with an enhanced corrosion inhibition package. It contains active sulfur and is primarily designed for heavy duty drawing, stamping, forming and extruding. This product has been formulated to provide improved washability.

HOUGHTO-DRAW® 9541-B230 is a biostable heavy-duty drawing and stamping fluid recommended for both ferrous and non-ferrous metals. HOUGHTO-DRAW® 9541-B230 is compatible with hard water and is clean running. This lubricant is readily washable and can welded through.

**QUAKERDRAW® 58 BF** is a heavy-duty non-chlorinated emulsifiable forming fluid useful for automotive and component stamping, high speed punching, and severe forming operations. QUAKERDRAW® 58 BF is compatible with welding and e-coat systems.

### Straight Oil Lubricants

- Straight oils options with boundary and extreme pressure lubrication performance
- Chlorine-free and Sulphur-free product options

**DRAWSOL® 6300** is a heavy-duty oil designed to meet the most severe requirements in drawing, stamping, and forming operations. It is a highly compounded product formulated with unique extreme pressure and lubricity additive package. DRAWSOL® 6300 is typically recommended for the most severe applications such as drawing of bar stock and difficult extruding operations.

**FERROCOTE® 6130** is a drawing and forming lubricant that can be used for blank washing, blanking, stamping, and bending operations. It is used for ferrous and non-ferrous metals. FERROCOTE® 6130 holds several automotive OEM approvals and is compatible with welding and e-coat systems. This lubricant provided excellent corrosion protection of formed parts.

**DRAWSOL® 195** is a chlorinated, medium viscosity metal forming lubricant especially suited for high speed processes where excessive heat is generated. DRAWSOL® 195 is recommended for severe single or multistage forming operations and is suited for fine blanking, broaching, and demanding stainless steel applications.

HOUGHTO-DRAW® 140-15 can be used for light and medium-duty forming, machining, drawing and blanking on most ferrous or nonferrous metals. It provides improved results in deep drawing automotive stamping over competitive low viscosity lubricants.

**HOUGHTO-DRAW® 7094-L** is a special non- chlorinated oil for fine blanking operations. It is a specially formulated metal forming lubricant offering both economy and great lubricity. HOUGHTO-DRAW® 7094-L provides good corrosion protection and can be welded through.

# Forward Together™

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