



LUBRICANTS AND CLEANERS FOR THE FASTENER INDUSTRY

Quality wire, made with **RichardsApex** coatings and lubricants, have long been preferred by the Fastener Industry. In this Bulletin, we present a group of lubricants and cleaners, frequently recommended by the wire manufacturers to their customers for the forming and cleaning of their fasteners.

LUBRICANTS:

MK-700 A water based, molydisulfide dry-film lubricant that provides maximum die protection for hot heading and forming operations on stainless steel, high temperature alloys, and titanium. **MK-700** is applied in hot dip applications or sprayed on preheated metals.

LW-31D A cream colored, pigmented, soft grease-form product supplied in the most desired consistency for die box applications. Generally used for single hole reductions and sizing pass draws on oil coated stock, but may be used on lime coated stock to produce a brighter finish. Very commonly used for both ferrous and non-ferrous rivet forming and in ball bearing manufacturing processes.

EP-M A dark, viscous straight oil-form compound highly fortified with extreme pressure and anti-wear additives. Formulated to provide superior protection against die wear and produce the lubricant film strength required to eliminate galling on stainless and alloy steels. Recommended for drawing, heading, and extrusion.

CLEANERS:

TK-150 A mildly alkaline, liquid cleaner with excellent detergency and metal wetting properties. Recommended for removing drawing lubes, light oils, and residual water soluble compounds from ferrous metals. Used at 10 to 20% by volume in water heated to a minimum of 160° F (70°C).

TK-41 Although originally formulated for cleaning brass and aluminum fasteners, this concentrated, liquid-form cleaner may be used on all metals. The product is low-foaming and suited for use in most batch cleaning processes. Depending on the type of soil and cleaning process used, **TK-41** is recommended for use at 5 to 10% by volume in water heated to a minimum of 140° F (60°C).

For specific soil or equipment problems, specially tailored formulations are available.