# SOLID FILM LUBRICANTS

Coatings for Enhanced Protection Over Conventional Wet Lubricants



Solid film lubricants exceed the limitations of traditional greases and oils as well as other coating and plating methods.

E/M Coating Services is a leader in the application of solid film **lubricants** – a family of coatings with inherent lubricating properties that firmly bond to the surface of a substrate. **Solid film lubricants** prevent surface to surface contact, thus reducing friction and wear between mating surfaces. The lubricant actually becomes a protective layer between the two mating surfaces. Customers benefit from the versatility of these coatings that are effective in:

- Extending wear life
- Lowering coefficient of friction
- Preventing galling, fretting and seizing
- Withstanding extreme temperatures
- Providing corrosion resistance
- Providing high performance **lubrication**

We apply solid film lubricants made from a variety of lubricating materials including MoS<sub>2</sub>, graphite, PTFE, FEP, PFA, ECTFE and PVDF.

#### **Solid Film Lubricant Advantages Over:**

### **Greases and Oils**

- Withstands extreme temperature range
- Bonds to the substrate surface
- Contaminant free
- Requires no maintenance
- Provides increased chemical resistance

#### **Zinc Plating**

- Provides greater corrosion protection (300-1500 NSS)
- Provides barrier protection
- No Hydrogen embrittlement
- Allows easy assembly and disassembly
- Enables close tolerance for parts
- Offers color identification

| Typical Applic Component                                       | ations<br>Solution  | Coating System  |
|--|---|---|
| Passenger<br>Seat Assemblies:<br>Guides, Springs,<br>Fasteners | Prevents corrosion;<br>eliminates<br>contamination issues<br>with standard liquid<br>lubricants   | E/M 6275<br>E/M 6219  |
| Ball Studs<br>and Cases  | Provides lubricity and corrosion resistance   | E/M 6113<br>E/M 6275  |
| Bearing<br>Assemblies for<br>Jet Engines                       | Prevents galling and wear   | Microseal® 300-   |
| Latches/<br>Splines/Rods                                       | Replacement for cadmium plating; provides corrosion and wear resistance                           | E/M 6287  |
| Printer<br>Components  | Eliminates<br>contamination issues<br>with standard liquid<br>lubricants                          | E/M 6219  |
| Semiconductor<br>Manufacturing<br>Equipment                    | Improves quality;<br>provides corrosion<br>and wear resistance;<br>lower friction                 | E/M 6230  |
| Magnification Pin<br>for X-Ray Arm                             | Provides smooth rotation; reduces noise and wear  | E/M 6219  |
| Components<br>for Autosuture<br>(Stapler) Unit                 | Prevents binding and provides wear resistance   | E/M 6274  |
| Valve Bodies,<br>Impellers, Fittings,<br>Diaphragms, etc.      | Provides chemical/<br>corrosion resistance<br>and wear protection                                 | Everlube® H-610<br>Everlube K-710                           |
| Actuator Stems<br>& Shafts                                     | Prevents corrosion;<br>eliminates conta-<br>mination issues<br>with standard<br>liquid lubricants | E/M 6226<br>Microseal EN-300<br>Microseal 100-1<br>E/M 6238 |
| Eyelet/Rivet   | Provides uniformity and release   | E/M 6219  |
| Conveyor Belt<br>Fasteners                                     | Provides corrosion resistance and lubricity   | E/M 6219  |

## **FACILITY LOCATIONS:** GERMANY:

MIC Unna

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