

Technology

Tool-X utilizes Carbon Nano particles as the extreme pressure lubricant. This Nano fluid operates in environments where extreme heat is generated due to the severity of the draw requirements. This product works in both Hot and Cold forming applications where part quality, thruput and finish are important.

Temperature

Tool-X operates up to 3000F and promotes improved metal flow with observations of up to 15% reduced application forces. This breakthrough has significant implications for deep drawing applications where Tooling can be redesigned to generate more complex / deeper forms with less oxidation.

How does it work ?

Tool-X deploys Carbon Nano spheres with hardness factors to withstand pressures generated during Metalworking processes. These tiny spheres (10nm in diameter) work well In fluids and fit nicely between the tools surfaces and workpiece. Furthermore, no degradation occurs as a result of pressure or oxidation. The concentration of these spheres (Trillions) create a highly lubricious, low friction interface converting sliding friction to rolling friction. Next, is heat transfer. The key is the volume of spheres which transfer carry away and dissipate heat energy away from the tool surface resulting in Cooler, more Accurately Formed components for longer tool life.