

Unique Technologies Associates

PRODUCT COMPARISON

<u>Cobra</u> Solid Lubricants	MicroPoly, SKF Solid Oil (W- 64/PolyOil), Volution, JSH, MPL Concepts, NTN	High Temp Greases
Dry, Graphite Based, Oil Free Lubricant	Microporous polymers consists of polymers (typically UHMW), additives and free oil at 65%/weight	May use PFPE base oils and PTFE thickeners
Consistent, permanent lubrication over the life of the bearing - low or no maintenance	Permanent lubrication	Requires Preventative Maintenace Process
Resistent to water, steam and chemicals. No seals are required.	Limited chemical resistence	Limited chemical resistence and often properly sealing is required.
Low torque, free spinning	High torque (Not free Spinning)	High torque (Not free Spinning)
Effectively seals against dust, dirt and debris	The free oil may attract contaminants to the surface	Even with seals may attract contaminants
Continuous temperature range of - 150 to 660+ F	Limited tempearture range base on the lubricant specifications	Temperature range may be from -105 to 750 F. Oil viscosity and film thickness can be affected by temperature.
NO outgassing in a vacuum	May not be suitable in a vacuum environment	May outgas in a vacuum
Excellent resistance to radiation	Conventional lubricants can be problematic in a radiation environment	May not be suitable in a radiation environment
Certified NSF H-1 Food Grade	Utilizes food grade lubricants to meet NSF H-1 certification	With the proper base oil may be NSF H1 certified
Will not wash out even in solvents	Solvents and wash down can remove the lubricant within the polymers	Most greases will be effected by solvents and chemicals
Meets the definition of an environmentally "green" product	Lubricant leakage may require clean up	Requires proper disposal methods
Maintenance free. Static film does not require motion to provide a lube film.	Maintenance free. Dynamic lube film dependent on operating temp., speed and lube viscosity.	Grease compatibility often requires system purging. Dynamic lube film dependent on operating temp., speed and viscosity.
CSLs are dry and oil free - no leakage	Oil may leak from the polymer	Greases may leak leading to environmental and safety issues. Leakage can contribute to end product contamination.