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Industrial operations are not just facing competition in their own backyards these days.

Your competitors can be anywhere in the world.

No matter the size of your business or into what area of the industrial landscape it falls, maximizing equipment performance and reliability are essential ingredients in staying ahead of those that are trying to get ahead of you.

Today, countless end-user organizations are following proactive maintenance strategies, viewing maintenance and lubrication as investments to ensure long-term success. Many of them have found that when it comes to maximizing the performance and durability of their critical equipment, there are several significant advantages in selecting high-performance synthetics over conventional, mineral oil-based lubricants.

#1. Extended equipment life. Whether your equipment is running in extremely cold or hot conditions, synthetic lubricants are up to the task. Effective over a wider range of operating temperatures than mineral-based products, they protect critical components at either end of the thermometer. At high temperatures, synthetics typically deliver thicker oil film to reduce wear. During low-temperature startups, they offer excellent flow characteristics to reduce the risk of oil starvation.

By comparison, conventional, mineral-based lubricants can degrade rapidly when exposed to high temperatures, increasing the tendency for deposits to form and reducing oil life. When subjected to low temperatures, they may not flow as easily to critical parts, limiting overall protection benefits.

Over the years, OEMs have focused on developing new, more compact and efficient equipment that is capable of delivering higher load capacities. The upside is that these newer units frequently provide better overall performance than their predecessors, and they have smaller

footprints. The downside is that such improvements sometimes put added stress on lubricants in terms of higher operating temperatures and load conditions. These effects are compounded by the OEMs' drive to reduce total life cycle costs for their products—*in particular, reducing oil volume while extending oil drain and regreasing intervals.*
With their limited capabilities, conventional, mineral-based lubricants often are not able to handle these stresses for extended periods.

#2. Increased energy efficiency. Compared to conventional mineral oils, high-performance synthetics can actually reduce energy consumption in many applications. This stems, in part, from their lower traction properties and better lubricity— *which helps minimize friction between moving components.*
Synthetics also have a lower viscosity compared to their mineral counterparts during low-temperature startups, which results in lower churn energy loss. This balanced performance is crucial, since any lubricant that offers energy savings but fails to protect against wear could actually lead to increased operating costs for your business.

#3. Simplified maintenance and lower TCO. For most applications, synthetic lubricants generally last up to six times longer than their mineral oil counterparts— *something that can help reduce maintenance costs and improve productivity*. Extended oil life translates into reduced oil purchases, used-oil disposal volumes, maintenance effort for oil changes and lubricant-related downtime. Moreover, many high-performance synthetic oils and greases can be used for multiple applications, including gears, bearings and air compressors, helping to streamline lubricant inventory, simplify maintenance procedures and reduce the likelihood of equipment failure from improper lubrication.
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A 17-year veteran of ExxonMobil, Michael J. Hawkins was recently named global brand manager for the company's flagship Mobil SHC brand of high-performance synthetic lubricants. Learn more about Mobil SHC at www.mobilindustrial.com

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