

LUBRICATION ■

Superior lubrication capability

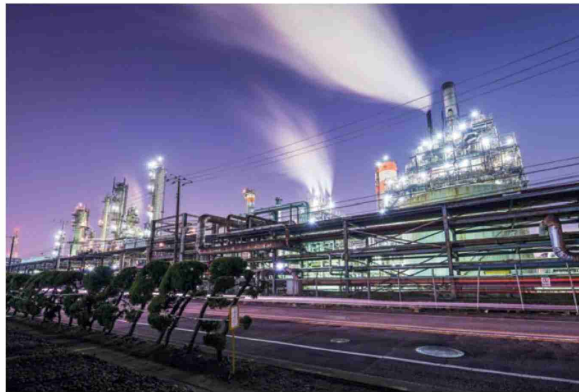
Superior lubrication slashes electricity consumption, reduces vibration, and increases protection through dramatically lower friction. "Lubricants are normally regarded as a cost centre and are seen as disposable," says Craig FitzGerald from ISO-Reliability Partners. "In fact, lubricants can be turned into a profit centre through reduced energy consumption and production improvements."

The primary job of a lubricant is to reduce friction and protect lubricated components. Most rotating equipment repairs are due to the failure of lubricated components such as bearings.

Lubricant performance can vary greatly between competing mineral and synthetic oils, because these quality differences directly and significantly impact the ultimate cost of operating and maintaining rotating equipment. "Lubricant purchases cannot be effectively managed as a commodity. Lubricant excellence must always be top of mind. Even the most effective lubricant management practices cannot impart properties to a lubricant that it does not possess," notes FitzGerald.

Royal Purple lubricants from ISO-Reliability Partners consistently deliver a higher level of performance across a broader group of equipment than other industrial oils, including synthetic oils offered by large competitors. "No other lubricant offers a lower total cost of ownership for the majority of plant and

"Royal Purple lubricants from ISO-Reliability Partners consistently deliver a higher level of performance across a broader group of equipment than other industrial oils, including synthetic oils offered by large competitors."



equipment. The cost reductions consistently exceed the total cost of the product, often within a few weeks," explains FitzGerald.

An example of Royal Purple's superior performance is its use on the China Star project to develop China's own bullet-train technology. Renowned bearing experts from NSK Japan initially tested 26 of the best-known lubricant brands for product suitability under extreme loads. Only three suppliers passed the initial testing phase, leading to in-field trials where all lubricants failed to perform above 160 km/h.

To allow the traction motors to run at higher speeds, Royal Purple's Ultra-Performance Grease No. 2, an aluminium complex EP grease, was finally selected. It is a high-performance synthetic grease with advanced additive chemistry to reduce bearing temperature and vibration. Royal Purple set new land speed records when all competitors failed to succeed.

Royal Purple was subsequently asked to recommend lubricants for other components of the traction motor, including its multipurpose industrial oil with Synerlec for the 280 mm bearing and drive gear, and its maximum-load synthetic lubricant for the gear coupling. High-speed motor tests were conducted with the new lubricants. Not only was a new Chinese rail speed record of 321,5 km/h set, but all the bearings looked like new after 80 000 km of high-speed testing.

As a result of these successes, Transnet Engineering has awarded a five-year lubrication

supply contract to ISO-Reliability Partners for Royal Purple synthetic lubrication, specifically for use on all high-speed locomotives.

Royal Purple Synfilm GT is widely accepted as the ultimate in compressor protection, and the absolute best compressor lubricant on the market. Royal Purple's proprietary additive Synfilm greatly improves compressor performance, whilst reducing electricity consumption by in excess of 15%. "At Sasol Synfuels they understand the value of superior performance lubricants and trust Royal Purple Synfilm GT for its most critical compressors," he continues.

Royal Purple's Synerlec additive technology creates an ionic bond with metal surfaces, providing continuous protection against wear and tear. The company's lubricants have been shown to improve fuel economy by up to 4,5% compared to conventional oils, in addition to containing an anti-rust agent to protect metal surfaces from corrosion.

"Our lubricants keep internal engine components clean to reduce the risk of engine damage. Royal Purple lubricants, known to be 'better than the best', are fully compatible with other synthetic and mineral oils, making them easy to use in a variety of applications," concludes FitzGerald.

**For more information contact
Craig FitzGerald, ISO-Reliability Partners,
+27 10 449 6414, craig@iso.co.za,
www.iso-reliability.com**

www.motioncontrol.co.za First Quarter 2024 31