**NEWS ARTICLE**

Premium lubricants improve plant and equipment productivity

**11 December 2024:** Dramatic improvements in plant and equipment productivity are possible through innovative solutions and superior performance lubricants from [ISO-Reliability Partners](http://www.iso-reliability.com). “In all instances, we work together with end users to deliver on our promises of higher availability and reliability of production and processing equipment,” says **Craig FitzGerald**. Benefits include increased production, lower cost of operation, reduced electricity consumption, and lower carbon footprint.

ISO-Reliability collaborates with brands such as Bel-Ray and Royal Purple to achieve the best possible output performance from machinery. “We have strong relationships with the world’s premier lubrication manufacturers,” says Craig. Product offerings include environmentally accepted lubricants, biodegradable lubricants, non-toxic and food-grade lubricants, and EU Ecolabel certification.

In an environment where stricter government regulations are in direct contradiction to reducing operating costs, more manufacturing plants should be turning their attention to lubrication reliability best practices.

Speaking about lubrication in large open gear systems, Craig explains that, historically, manufacturing plants with open gear systems have made use of asphaltic compounds to provide a ‘cushioning’ effect. A vast majority of these open gear compounds contained lead, which ultimately provided protection for the gears.

However, in recent years, many of these lead-containing products have been removed from the market due to it being classified as hazardous waste material. The resulting products have led to diminished performance characteristics with less protection for gears.

Where asphaltic products have traditionally been used, there is often a build-up of hardened lubricant product in the roots of the gears. This build-up presents multiple problems related to cleaning and mechanical interference that can result in root build-up or stress on the pedestal mountings.

Modern large gear systems are often overloaded, and to attempt to cope with the problem, operators apply increased amounts of lubricant – usually two to three times more than recommended by the American Gear Manufacturers’ Association.

In response to the problems associated with traditional open gear lubricants, global leading lubrication manufacturer Bel-Ray specifically developed CLEAR GEAR®, a heavy-duty synthetic oil designed to provide protection for high-load, heavy-shock applications such as large shrouded open gears used in the mining, mineral processing, and cement industries.

As the official distributor for the Bel-Ray lubricants in South Africa, ISO-Reliability Partners has been instrumental in the implementation of lubrication programmes using CLEAR GEAR® at manufacturing plants across Southern Africa. These include Sibanye Platinum’s site in Rustenburg and DRDGold in the North West.

Past experience with converting mills to CLEAR GEAR® has seen a power consumption reduction of about 12% and reduced pinion vibration of up to 15%. Due to the lubricant’s ability to remain on the gear, hydrocarbon contamination of the process fluid was eliminated, leading to increased recovery of Platinum Group Metals (PGMs) by between 0.75% to 1%. Noise levels have also been reduced in line with Sibanye’s ‘Zero Harm’ philosophy.

“Proprietary micro fine filtration systems and premium lubricants provide customers with total asset protection, improved power efficiency, decreased environmental contamination, extended equipment life, increased production, and improved reliability and availability of the plant,” says Craig. He concludes that CLEAR GEAR® is leading the way to improved plant performance and significantly cleaner operations, with a considerable financial gain for end users.

***Ends***

**About ISO-Reliability Partners**

ISO-Reliability Partners has consolidated knowledge and expertise and provides industry with substantial and quantifiable improvements to plant and asset protection. We combine expertise in the fields of filtration, lubrication, and tribology, offering an advanced and comprehensive service to our customers.

The well-being of the environment is of key concern but is often overshadowed by business needs. Through the more efficient use and handling of commodities such as fuel and lubricants, we reduce pollution through lower usage and disposal of lubricants, conserve electricity usage while achieving higher production output and provide greater asset protection and an overall lowest cost of ownership.

ISO-Reliability Partners is a Level 2 accredited B-BBEE contributor that owns the iconic Filter Focus brand and provides lubrication products and services with a foundation in tribology and hydrocarbon ISO cleanliness. Unlock the hidden and lost value in your business operations with world-class technology provided by ISO-Reliability Partners, your partner in improved efficiencies.

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