

# A can-do approach to performance and food safety

**Switching to food-grade lubricants can boost the bottom line, says Dan Munro, business development manager for canning & beverage industries at Shell Lubricants.**

Operational performance and efficiency play a key role in the food industry and contribute to product freshness and quality. Advances in machine technology mean that operators can run production lines continuously and reduce production times. This helps to minimise product wastage and prolong shelf-life. In the competitive market of trading in high quality perishable goods, this can prove particularly profitable.

Maximising performance and efficiency are extremely important to food and beverage packers. A slow, unreliable packaging line leads to stock piling up, compromising product quality. This may mean running at lower production volumes and speeds or even stopping the whole line. At the same time, operators must also maintain high levels of food safety.

## Lubrication overview

Lubricants and greases play a vital role in the smooth and efficient running of canning and other processing equipment. Used to reduce metal-to-metal contact between equipment parts, lubricants and greases help to protect against expensive component wear and

enable operators to maintain equipment uptime. However, as technology advances, operating conditions become more exacting and demand more from lubricants. Modern lubricants must be able to cope with long equipment running times, faster moving parts and high operating temperatures.

These conditions are in direct opposition to food safety legislation, which is raising standards around the world. The result is that food and beverage packers have less and less margin for error in terms of accidental contact between their product and lubricants.

Where the lubricant circulates, such as gearboxes, pumps and compressors, leaks can occur over time due to worn seals or pipe joints. Even regular maintenance and best operational practices cannot completely eradicate the threat of lubricant contamination. Leaks are not always obvious, and if contaminated product leaves the plant before the problem is detected, the company is exposed to all the problems of product recall, and the public is at risk of consuming an adulterated food or beverage. The impact of this risk can be reduced

by switching from non-food to synthetic food-grade lubricants.

## Performance and safety

High quality synthetic food grade lubricants, such as Shell Cassida, offer distinct operational advantages, especially in the canning industry where equipment makers such as Angelus have given their approval to the use of Shell Cassida lubricants in their can seamers. Formulated using a system of approved additives and base fluids, the lubricants and greases are colourless, tasteless and odourless.

Synthetic food grade lubricants can also out perform non-food grade products made from mineral oil. In many cases, synthetic food grade lubricants and greases offer excellent anti-wear and strong resistance to oxidation. Even in extreme temperatures, synthetic food grade products can resist the formation of deposits and sludge. This gives longer oil service and equipment life. Longer oil life and fewer stoppages for service and maintenance mean higher production rates and a bigger bottom line.

A key performance parameter is the water handling capabilities of synthetic food grade lubricants. Some, such as Shell Cassida Fluid GLE, can provide excellent equipment protection in the wet conditions found in beverage and canning plants. With the right additives, synthetic food grade lubricants can absorb free water and hold it in suspension. This protects the equipment's metal surfaces from rust, wear and corrosion.

## Food grade benefits

Switching to synthetic food grade can help operators to realise the full performance benefits of modern canning and packaging equipment. They save money through lower maintenance costs and extended oil life, meaning reduced lubricant consumption and storage. Better still, they improve food safety, protect product quality and integrity against the threat of contamination, and ensuring your reputation in the market.

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