

Challenge

Issue

A customer in the food and beverage industry had issues sealing a mixer in an application which mixed chocolate with other additives such as nuts and caramel. The bottom shaft rotated at speeds up to 1500 rpm. The original seals were failing nearly every five days, causing the mixture to leak and resulting in product loss. This situation also required ongoing maintenance issues.

Solution

Recommendation

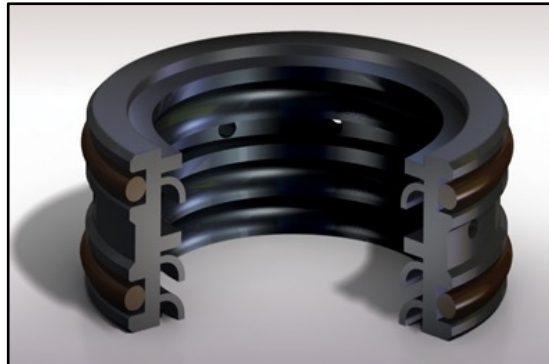
A Chesterton® 30KC Cartridge Multi Lip Seal was used to run against the shaft. The seal was made of carbon/graphite filled PTFE for excellent wear performance. The cartridge was installed in a stainless steel can to provide positive radial and axial retention. Flush ports were provided in both the seal and can to allow effective cleaning and periodic infusion with a FDA compliant lubricant.

Results

The 30KC performance was verified through functional trial in the customer's mixer. After 12 months of problem-free performance, the customer switched to this solution. The Chesterton 30KC Cartridge Multi Lip Seal provided successful sealing for another two years before maintenance was required.



The mixer's hydraulic power unit.



Chesterton 30KC Cartridge Multi Lip Seal.



The chocolate mixer sealing issues were resolved.