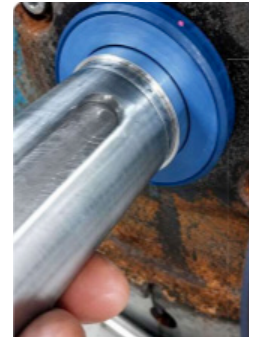


Case Study: Garlock ISO-GARD® Bearing Isolator Eliminates Granulator Motor Failures



Competitor Seal



Garlock ISO-GARD®

INDUSTRY

Pharmaceutical Manufacturing - Granulator Equipment

BACKGROUND

A leading pharmaceutical manufacturer relied on a VG-800 granulator to produce solid dosage products, including tablets and capsules. After experiencing recurring electric motor failures on the granulator, the manufacturer investigated the application to identify the root cause and implement a more reliable sealing solution.

CHALLENGES FACED

Ultrafine process dust was bypassing the conventional NBR lip seal and contaminating the bearings, which caused the granulator motor to fail. Seal life dropped to less than one month, leading to frequent bearing replacements, stator rewinds, and significant unplanned downtime. The manufacturer needed a sealing solution capable of preventing contamination, extending equipment reliability, and reducing maintenance demands.

OPERATING CONDITIONS

Temperature: Ambient

Application: Electric motor bearing protection on a pharmaceutical granulator

Media: Ultrafine pharmaceutical process dust

SOLUTION AND BENEFITS

Following a detailed engineering evaluation, Garlock and our distribution partner recommended a Garlock ISO-GARD Bearing Isolator Labyrinth Seal offering an FDA-compliant PTFE construction required for the pharmaceutical application, while providing an improved sealing solution with added contamination ingress protection compared to the conventional elastomer lip seal. The non-contact labyrinth seal design prevented fine process dust from entering the bearing housing without relying on a contacting seal lip, eliminating the wear associated with dry-running, abrasive environments. Following the upgrade, the granulator operated for 12 months without anomalies or premature bearing wear, significantly extending maintenance intervals, reducing downtime and maintenance costs, and supporting adoption of the solution across additional equipment through the manufacturer's Kaizen improvement program.

For more information, please visit:

<http://www.garlock.com>

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