



### **HIGHLIGHTS**

- Bi-directional, single position clutch
- Durable, low-cost design with fewer components
- Wide 50 to 1200 in. lbs. torque range
- Fully automatic reset
- Corrosion-resistant, hard-anodized housing



# Centric Centrigard<sup>™</sup> Overload Clutch

## **Corrugated Box Infeed**

### **PROBLEM**

To achieve a higher cycle rate for their customers, a mid-Atlantic packaging system manufacturer increased process speed on a box feeding system. Unfortunately, the higher infeed speed created sufficient variation that resulted in occasional jams. The jams caused a loss of productivity as the flow of packaged product was disrupted.

Further, because the infeed would continue to run despite the jams, there was damage to the boxes that continued to try to feed into the jammed section of the machine. Lastly, the box feeder would get put out of timing with the product infeed section of the machine. The jams resulted in downtime while the operator cleared them and the machines were reset and brought back into correct timing with each other.

#### **SOLUTION**

A Centric Centrigard<sup>™</sup> clutch from Boston Gear was suggested as a solution to address the jam problem. The carton machine was driven by a motor, gearbox and chain drivetrain that generated 800 in. lb. of torque. The overload clutch was set so that it would engage when torque exceeded 700 in. lbs. The Centrigard clutch can be adjusted to react within a range of 50 to 1200 in. lbs. The clutch has a pilot diameter and pre-drilled mounting holes to accommodate the machine's chain drive.

With the Centrigard clutch installed, the infeed system immediately disconnects the drive from the chain drive when a jam occurs. This quick response reduces the number of boxes damaged while being fed into a jammed system. By limiting the magnitude of the jam, the time to clear the jam and return to production is significantly reduced. The Centrigard resets at its original orientation so that the timing between the box infeed and the product infeed is maintained.

US (Application Assistance)

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