



## Product



## Application

## Custom BK Series Geared Motors

## Onion Bin Dumper

### Highlights

- Custom BK Series helical bevel geared motors
- Torque rating: 96,000 in.lbs. (10,846 Nm)
- Hardened wear sleeve and spray ring
- Complies with NA and International standards, including NEMA, IEC, CSA and CE
- Single-disc holding brake with a 177 in.lb. (20 Nm) torque rating
- IP65 Enclosure (Standard)
- Completely enclosed, sealed against dust and moisture
- COR01 epoxy coating corrosion protection
- Torque arm provided

A major U.S. food processing OEM required a robust gear motor solution for use on its onion bin dumpers. The shaft-mounted geared motors lift and dump heavy, loaded onion bins into hopper-fed conveyors for further sorting and processing.

The customer had considered a chain drive as a secondary drivetrain in order to reduce the size of the primary geared motor. Bauer engineers pointed out that the savings from the smaller, lower cost geared motor would be quickly exceeded by the costs to fabricate a structure to support the chain drive and related support bearings. Plus, the chain drive would require a cover. All these costs would be eliminated by using a Bauer shaft-mounted geared motor.

Bauer worked closely with the OEM to demonstrate the torque required for the heavy bin dumper. Bauer engineers also suggested using a shrink disc, which eliminated the need for a keyway. The shrink disc provides zero slip between the shaft and the geared motor in both directions of rotation.

Modified BK80 geared motors providing 96,000 in.lbs. (10,846 Nm) of torque were supplied to exceed the 90,000 in.lb. torque application requirements. The loaded bin would be stopped occasionally during the lifting operation, so a single-disc brake with a 177 in.lb. (20 Nm) torque rating was incorporated to hold the load. A torque arm was also provided. The bin dumper would be subjected to sporadic water spray washdowns so a COR01 epoxy coating was applied to the entire geared motor.

The BK80 units performed well during OEM testing for the end user which included lifting, lowering, e-stops and other operational criteria.

Europe  
**+49 711 3518-0**  
bauergears.com

US  
**1-732-469-8770**

Asia Pacific  
For a list of our AP sales offices:  
altramotion.com/contactus