

# Application Profile



### Highlights

- The 700 Series reducers featured the Posivent® pressure compensation system and double input seals
- Rugged cast iron housings
- High strength steel output shafts
- Super finished oil seal diameters on input and output shafts

## 700 Series Speed Reducers

## **Retractable Bump/Turn Conveyor**

A food manufacturer needed a conveyor to align, gap, and change product orientation of two box sizes at high speeds while fitting within the existing plant layout. The conveyor had to fit in a small window of space at the top of a three tier conveyor system.

Engineers at Omni Metalcraft Corp. designed an Activated Roller Belt™ (ARB) aligner conveyor integrated with a product gapper and case turner. Boxes would first be aligned to one side of the conveyor for scanning. A plastic belt gapper was incorporated to space out the cartons while photo eyes read/checked their orientation. If a box orientation needed to change, a retractable bump turn would activate allowing the carton to rotate 90 degrees. All three application functions were completed in 14 feet at 100 FPM.

Boston Gear 700 Series speed reducers were used on the drives for both the aligner conveyor and the belt gapper conveyor. The 700 Series reducers feature rugged cast iron housings and high-strength bronze worm gears mounted between heavy-duty tapered roller bearings. Large oil reservoirs provide efficient heat dissipation and lubrication for longer operating life. The hollow shaft units have a reduction ratio of 40:1.

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