CASE STUDY

VACUUM PUMP SOLUTIONS
FOOD AND BEVERAGE PACKAGING

PROJECT OVERVIEW
Packaging in the food and beverage industry

INDUSTRY SIC CODES
2834 - Pharmaceutical Preparations
Key players in this market:
- Johnson & Johnson
- Novartis Pharmaceuticals Corp.
- Bristol-Myers Squibb Co.
- Abbvie Inc.
- Merck & Co. Inc.

87349906 - Industrial Sterilization Service
Key players in this market:
- Eestech, Inc.
- G3 Medical, Inc.
- Sterigenics U.S.

FOOD & BEVERAGE PACKAGING

VACUUM PACKAGING
The use of vacuum pumps in the packaging process is key to extending shelf life of food products. Vacuum pumps evacuate air typically, but are also used to remove water vapor, fat, and granular materials like seasonings. In the chamber packaging process, food is placed inside a vacuum bag and loaded into a packaging chamber. Air is evacuated and the bag is heat-sealed.

Blowers may also be used as an alternative solution in low vacuum applications for packaging and handling. A Kinney representative can review a comparison of blowers versus vacuum pumps with you to select a solution offering the highest level of reliability and efficiency for your application.

THERMOFORMING
The thermoforming process is used to package various types of products between plastic films or into preformed trays, which increases packaging production speed. Heated plastic sheets are placed over a forming die to create a container. Once cooled, product is placed into these containers and evacuation is used as the top film is heated and sealed to the container.

BOTTLING
Vacuum is used to equalize pressure and fluid movement in the bottling process. In the case of bottling consumable beverages, contaminants will also need to be removed through the use of vacuum pumps. In the beer bottling process, bottles have carbon dioxide injected into them to reduce the level of oxygen inside the bottle. As the bottle is filled with beer, the filler may also inject a small amount of inert gas on top of the beer, dispersing the oxygen.