



## CUSTOM EQUIPMENT DESIGN ENABLES PIE SHELL PRODUCTION AT 140 PPM

### SITUATION:

The owner of a company that sells special equipment to the bakery industry needed to improve an existing mechanically driven pie shell spinning machine.

- The ever-changing marketplace requires more speed and the ability to quickly change over the machine for more pie shell sizes, shapes and types of crumbs being used.
- The current changeover time and production speed needed to improve.
- A redesign was needed so that the machine was more robust, had programmable settings, and offered variable cycle motions. The solution had to permit 2, 3, and 4-head tooling versions.

### STERLING SOLUTION:

Sterling designed a 4-head, 2-axis servo drive to address reciprocation and vertical spinner drive motions.

- The kinematics of the system were calculated and system-timing profiles were generated. The machine can be directly integrated in to new and old installations. The design incorporated bakery GMP and safety guidelines.

### RESULTS:

Sterling completed the design and the client is running production at 140 pie shells per minute with a 1 hour changeover time.

## PROJECT SNAPSHOT

- ❖ *A redesign was needed for a machine to decrease changeover time for producing variations of their product.*
- ❖ *A design and implementation of a servo drive was the solution.*
- ❖ *An improved changeover time and increased production time.*