## & ENGINEERING A Case Study

P.T. International

New Housing Created for OEM of Commercial Drying Equipment



**BACKGROUND** A large, US-based OEM (Original Equipment Manufacturer) supplies drying equipment for commercial use. Their products include machines such as industrial grade large capacity dryers, coin operated dryers, and drying cabinets.

**THE CHALLENGE** The OEM discovered the bearings of their drive motors were overloaded and prone to premature failure. While needing a very light swivel fit for the bearing within the housing during installation, the customer also wanted the ability to lock the bearing down in the housing after motor and drive components were aligned and installed. Ultimately, they wanted a new adjustable clamp type housing.

**THE SOLUTION** PTI's Engineering Team worked with the customer to understand and analyze the application needs.



PTI started with an existing OWFK housing...



...And made modifications to create the clamping concept. Prototype testing proved to be effective.



PTI printed and shipped a 3D model to the customer for concept validation. The customer tested the new housing for fit and function.



Once the model was approved by the customer, PTI's Engineering Team created a mold from the model drawing for a formal cast iron housing for production.

**THE RESULT** This new housing allowed all drive components to be aligned and installed first, then the bearings could be clamped into position. Due to the lube-for-life feature desired by the customer, PTI recommended a 60% lube fill to allow as much lube for the best possible service life.

The project length from initial contact to completed production units took less than three months.

**PTI'S ABILITY** By utilizing PTI's engineering capabilities, customers benefit from dedicated, knowledgeable and creative problem solving even under very compressed time frames. PTI remains committed to cuttingedge engineering capabilities and top-notch customer service.

