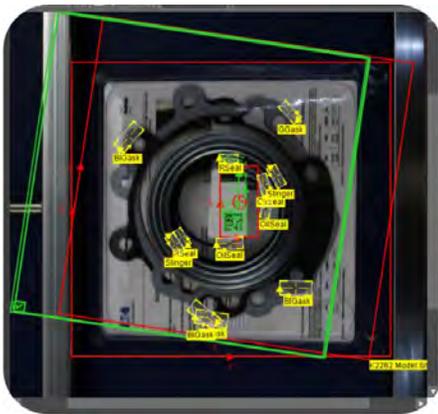


## Parts Inspection System

**Challenge:** Ensure product ships complete with no missing pieces.

**Solution:** Custom conveyor with reject station, print and apply, and machine vision with AI.

**Story:** A packaging company needed to upgrade its quality inspections. The company packages gasket packs up for a large automotive end-user. There are several gaskets in the pack. Some of the gaskets get missed from time to time, or worse yet, sometimes the end-user claims that not all the gaskets were there when they actually were. Before AI, it would have been almost impossible to do but with some of the new machine vision tools available, the team at EMP was able to put together not only a solution, but an entire production line for the customer. The line includes a custom conveyor with a reject station, a print and apply a long with a desktop label printer, and a machine vision camera with built-in AI for detecting missing pieces in the final assembly.



The assembled gasket kits are placed on the conveyor. The kits are first labeled with an automated print and apply system before going into the vision tunnel for inspection. The label ensures that the image saved from the inspection includes the serial number from each kit. After the inspection, the kits are either rejected if they failed or drop onto a packaging table if they pass. The system inspects each kit to ensure that all the pieces are included and provides an image as proof that all pieces were there when they left the factory. Once a case quantity of good kits is complete a case

label is printed, and the operator is notified to pack the shipping case. This continues until the entire order quantity is finished. After completion of the order, all the images along with the customer order number are stored away in the cloud for later retrieval if needed.

The addition of this system not only helps the customer ensure that they are shipping only good kits, but it is a showcase for them to use to attract new business. As a small assembly shop, investing in this kind of inspection automation gives them a leg up over their competitors.

Contact the EMP Tech Group today to see how we can make your manufacturing operations better!