

## Laser Marking Application

**Challenge:** Design an automated time and date stamp process on a plastic injection molded product.

**Solution:** Matthews e-SolarMark 30-watt Co2 laser, custom fixture, Cognex InSight 2000, and custom lighting.

**Story:** A large injection molding house needed to improve their time and date stamping process on one of their plastic container/lid products. The time and date inserts were embedded in the mold itself for tracking. This process was not very accurate, and the customer preferred to mark the container and lid after the molding process.



For the container, the customer installed a robot to pull the container out of the mold and placing it on a conveyor. The EMP engineering team then designed a fixture to position a Matthews e-SolarMark Co2 laser over the top of the conveyor and to mark the part with an exact time and date as it passes by. The date/time stamp is critical; therefore, EMP decided to include a Cognex InSight 2000 with custom lighting that verifies each mark has been made.

The lid also needed to be marked with the time and date. There was no good way to automate the lid line and space was very limited. The team at EMP designed a fixture to manually insert the lid into the laser marking system, and they were able to fit the laser controller, fume extractor, and PLC controls into the small designated area.

The project was built and tested in the EMP shop, a virtual run off for the system was done by video and both marking systems were delivered within 30 days of the project kick off. The engineers at EMP worked hard to make sure this project solved all of the customer's needs.



The EMP Tech Group can help with your laser marking project or any marking, data collection, machine vision or RFID project. Contact them today!