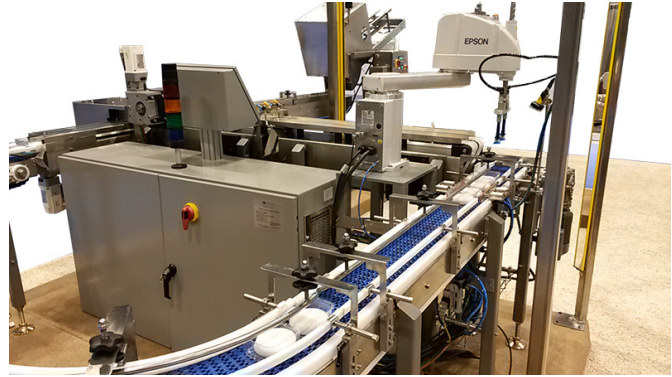


Auto Tray Loading Equipment

Packaging machine builders, APAI, recently attended the Pack Expo Show at McCormick Place in Chicago where they exhibited a tray loading machine for cookies. The continuous motion machine was designed to illustrate APAI's expertise in auto tray loading and unloading equipment. The exhibited demonstration fed simulated cookies down a conveyor to the load head where they were counted and stacked. A pneumatic gate was raised allowing the correct number of stacked cookies to drop into the biodegradable 2-cell PET trays. The full trays were transported around the conveyor to the unload station.



At the unload station a Cognex In-Sight 2000 vision system inspected the cookies to confirm their presence and inspect for broken cookies. The inspected cookies were then picked up by an Epson SCARA robot using Piab's piGRIP suction cups and placed on the feed conveyor to begin the process again. The robot would remove the emptied trays, stacking them in the de-nester to be used again. A Leuze MLC safety light curtain was used to protect the public from straying into the path of the moving robot while Murr cordsets connected the many sensors positioned along the conveyor.

"As an EPSON integrator, we wanted to show how a robot could be used to load or unload trays" said APAI owner, Mike Morrison. "We got a lot of good interest from various industries including food and pharmaceutical. I would like to thank ACS for their help particularly with the robot and vision system setup."

[APAI](#) provides vertical and horizontal form, fill and seal machines as well as bag make & fill equipment.