#### **Technical Service**

Call our toll free line to speak with a skilled technician or engineer for any troubleshooting or installation question. We also provide an online forum on our website. Click on SAS University and join our EOAT Forum. This forum is for any EOAT question and is an excellent EOAT resource.

## On-site Installation and Crisis Recovery

Our skilled technicians can re-stock your spare parts, train your personnel or solve automation problems on your production floor. Our vehicles are stocked with modular end-of-arm tooling components to prevent downtime and keep your operation up-and-running.

## **Automation Training Center**

Learn how to build tools at training sessions offered at our headquarters in any of our facilities. You may select a standard tool building session or a custom tooling session specific to your application.

## Spare Parts - Next Day

The SAS shopping cart makes getting replacement parts that much easier. Most parts ship from inventory next day. Our modular components are manufactured in-house at our locations. Therefore, custom machined parts are also available with quick turnaround!

#### **SAS** Automation

SAS Automation is one of the world's largest suppliers of modular component-based robotic End-of-Arm Tooling (EOAT) and gripper systems. Our tooling systems and automation equipment are installed throughout the world in a wide variety of packaging and palletizing applications.

#### MECHANICAL GRIPPERS





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ISO 9001 Quality System Certified









**ROBOTIC END-OF-ARM TOOLING** 



## FOOD HANDLING SOLUTIONS

Solutions for all your custom and standard Robotic End-of-Arm Tooling

**EXPERTISE + PRECISION + INNOVATION** 

## FOOD HANDLING SOLUTIONS

# Commercial Bakery Depanning and Food Handling Robotic End-of-Arm Tooling Solutions

SAS Automation has developed depanners to easily depan fresh baked goods. Both needle and vacuum styles are designed to handle fragile products right from the baking pan. In addition to depanning, SAS's EOATs can also compress the spacing of the product and place it on conveyors or in trays, tubs or clamshell containers.

SAS also specializes in a wide range of bag and box gripping solutions for produce, frozen and other difficult to handle food products.

Downstream operations for case packing and palletizing can be accomplished with the wide range of palletizing tools also from SAS Automation.

SAS Automation is a robotic End-of-Arm
Tooling manufacturer as well as a custom
automation machine builder. Our EOATs are
designed with modular and custom machined
components and will operate on any style or
make of robot. SAS has also partnered with
these leading automation companies: SMC,
PIAB, Joulin, ABB, Fanuc, KUKA, Motoman,
Kawasaki and many others.

SAS is ISO 9001 registered for quality parts and service. EOAT components are proudly engineered and built in the USA at our Xenia, Ohio state-of-the-art production facility.

# Muffin, Cupcake, Brownie and Layer Cake Depanning

144-COUNT NEEDLE DEPANNER



SAS has designed depanning EOATs that are flexible to handle different shapes and sizes of muffins, cupcakes, brownies and layer cakes. The use of welded frames of stainless steel, or anodized or white aluminum, supports the system of stroking cylinders, rails and bushings that mount the needle grippers or vacuum cups.

In one application, stainless steel needle grippers depanned 144 muffins from moving baking pans at the rate of 9 picks and 1,296 muffins per minute, 77,760 per hour and 1.4 million muffins per day.



The SAS Needle Depanner compressed the muffin spacing in 2 directions for direct deposit into retail and wholesale trays, making it ideal for high-volume, continuous commercial operations.

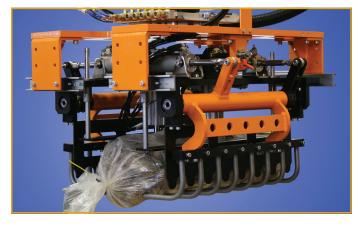
# BAG GRIPPERS, VACUUM TECHNOLOGY, CLAMPING AND FORK-STYLE EOATS



## Potato Bag Handling

The SAS Adjustable Bag Gripper (ABG-25 & ABG-50) is ideal for handling and palletizing plastic, woven cloth, or paper bags as it can be adjusted easily with its unique width adjustment system. In less than 30 seconds, the tool's bag width can be changed from 191-533 mm (7.5 to 21 inches) and, therefore, eliminates the need for costly custom tooling. Independent decking plates align the bag for precise placement on the pallet while the top-mounted bag clamps maintain bag position on the Bag Gripper during robot transfer to the pallet. Slip sheet and pallet hook options are available.

ABG-50 BAG GRIPPER



## Produce Box Handling

SAS Vacuum EOATS are powered by vacuum turbine or venturi generators for superior grip using high-flow vacuum. These EOATS use valved vacuum ports that automatically close when not covered by product or gaps between cartons during multiple picks. Vacuum plates can be zoned for multiple picks and placements and will handle slip sheets and pallets with no additional equipment required.

### Frozen Pizza Handling

Vacuum grippers are particularly suited for highspeed handling of frozen items. In one application, pizzas conveyed from a freezer were packaged by a flow-pack machine before presenting to the case-packing cell. The EOAT compressed the spacing of multiple pizza breads for packing in cases. The vacuum case packer handled several different shapes and sizes of pizzas. Pick rates exceeded 120 items per minute. The EOAT was a food-grade design with no painted surfaces and could be completely washed with low-pressure water and detergents.

#### Vacuum End-of-Arm Tools

CAKE TOOL



CAKE TOOL



PALLETIZING VACUUM PLATE



+ SAS-AUTOMATION.COM