Standard & Custom Robotic Gripping Tooling & Components

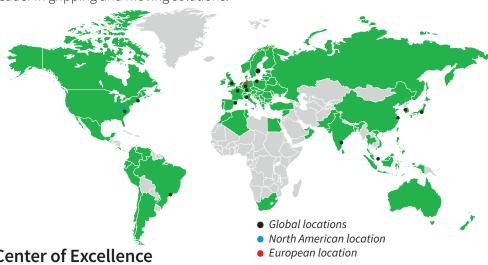
GRIPPING AND MOVING SOLUTIONS



Piab Automation Leadership

ABOUT Piab

Piab provides smart solutions for the automated world, helping thousands of end users and machine producers in e-commerce logistics, food, pharma, automotive, and other manufacturing industries to improve energy-efficiency, productivity, and working environments. With 430 employees and SEK 1bn in sales 2017, Piab is a global organization, serving customers in almost 70 countries from a network of subsidiaries and distributors. By leveraging the ongoing technological development in automation and robotics, and targeting high-growth segments and geographies, Piab's vision is to become the global leader in gripping and moving solutions.



ABOUT Piab's Center of Excellence for Robotic Gripping Solutions

Piab's Center of Excellence for Robotic Gripping Division designs and manufactures modular component-based robotic end-of-arm tooling (EOAT) and gripper systems. They are specialists in end-effector gripper systems for all makes of robots.

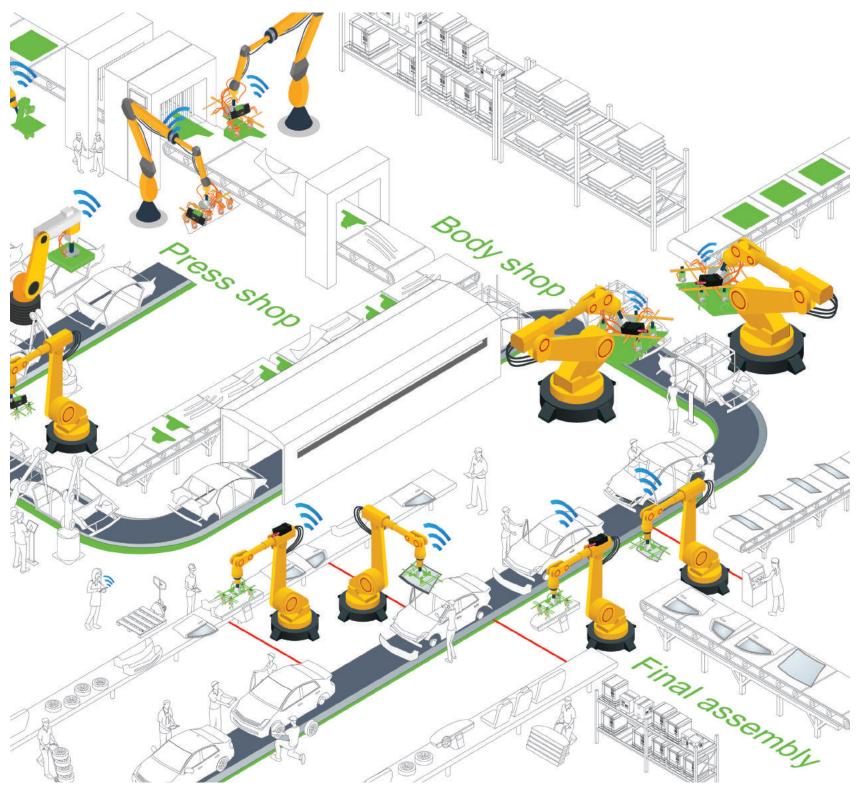
They also provide fully-integrated robotic EOAT solutions for robotic applications specializing in holistic solutions from design to customized engineering to pre-assembly through final assembly in your facility.

Piab, through their Robotic Gripping Division, provides robotic gripper systems used across diverse and demanding manufacturing and distribution applications around the world. locations including our corporate

headquarters in Sweden

piab.com





E NUMBERS

430+

engineers, researchers, support, leadership, sales, and other professionals 350+1

distributors deliver product into 70+ countries globally

all serving YOU, our most important customer

Specifications are subject to change without notice.

Piab Leadership in Robotics and Automation

OUR MISSION: SMART SOLUTIONS FOR THE AUTOMATED WORLD™

Industrial automation is transforming production and logistics processes, driven by the continuous striving for efficient production and improved quality. Piab's smart solutions help thousands of customers all over the world to unlock value through moving things faster, safer, and with less energy consumption.

OUR VISION: THE GLOBAL LEADER IN GRIPPING AND MOVING SOLUTIONS

Piab has pioneered vacuum automation since the 1960s and is an innovative partner to end users and machine producers in e-commerce logistics, food, pharma, automotive, and other manufacturing industries, providing smart solutions for any moving and gripping challenge. By leveraging the ongoing technological development in automation and robotics, broadening the product offering and targeting high-growth industries and geographies, Piab is well positioned to become the global leader in gripping and moving solutions.

- **Innovation** We are only as good as our ability to solve our customers' challenges. Piab is dedicated to more than supplying end-of-arm tools and components; we are dedicated to developing new solutions that drive our customers' success.
- **Expertise** We can only consider ourselves experts if we are first humble learners and explorers. We listen to our customers. We focus on learning more about our craft. We practice and test until we get it right. We set high standards for ourselves.
- **Precision** Our components and tools work because we pay attention to details. Successful automation requires precision to accommodate the size and weight of the products being moved. We must also be able to handle the right speed, plus a variety of materials and shapes. Successful automation is a complex business that requires a dedication to precise execution.



CUSTOM END-OF-ARM TOOLING PROCESS

1

PART APPLICATION



Specify your part to be gripped and/or application as well as robotic information, including payload and mechanical/electrical interfaces, by providing part/mold drawings, video of process, and sample parts.

CUSTOM CAD DESIGN

2

We custom design to your specifications and provide CAD drawings for approval.

3

GRIPPER ASSEMBLY

Upon approval, we will lay out and assemble your EOAT with standard and/or custom machined components.

TESTING

4

Finally, we test the custom EOAT with your part/application to facilitate quick set-up onsite.

5

INSTALLATION

Upon request, we provide technicians for installation assistance, onsite adjustments, and robot interfacing.

SUPPORT

6

As an option, we offer a recommended spare parts kit to assure maximum production of your robotic work cell.

QUALITY PRODUCTS AND SERVICES

We meet or exceed customer expectations by providing superior Robotic End-of-Arm Tooling and Automation Technology. Together with our customers and suppliers, we continuously improve our products and services to assure market leadership.

BENEFITS INCLUDE:

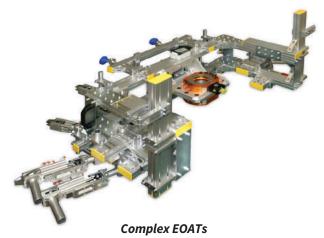
- Reduced downtime and increased productivity with our modular system
- Increased flexibility as our EOATs fit any robot and are custom made to your need
- Increased productivity with innovative thinking that collaboratively solves your EOAT challenges
- Reduced costs using our innovative in-house engineering, manufacturing, and testing
- Reduced administration costs using our e-commerce store
- Increased uptime with our next day delivery on components
- Increased productivity through our worldwide onsite sales, installation, training, and service
- More reliability as we are ISO 9001:2015 certified

PLASTICS

We take pride in our ability to engineer and design EOATs for almost any application related to de-molding plastic parts. With more than 20 years of experience solving complex to quick turn customer end effector applications our team of professional tool designers will customize the right tool for the job.

- Durably built using high-quality materials
- Leading edge innovative technologies
- Customizable modular components

- Trusted installation, training, and service
- Quick turn simple tools



Tooling fully customized to your unique application



Durable and reliable construction



Simple Quick Tool Available in 1-3 weeks



Degating and Cutting StationsAvailable for on-tool and stand-alone applications



Insert Molding EOAT for Plastics Injection Molds



Innovative In-Mold Labeling (IML)

PALLETIZING

As leaders in robotic gripping solutions for palletizing, Piab designs EOATs with modular and custom-machined components and will operate on any style or make of robot. We have also partnered with most leading automation companies.

- Four styles:
 - Bag Grippers
 - Clamping Grippers
 - Fork-Style Grippers
 - Vacuum Plate EOATs





Hybrid Bag Grippers

Ideal for palletizing, grain bags, chemicals, and other bagged products

- Engineered and built in our world class production facilities
- Solid stainless-steel gripper fingers secure product
- Precision alignment for accurate placement
- Innovative & reliable custom engineering



Clamping Grippers

Ideal for slip top cartons and heavyweight applications



Fork Tool

Ideal for open-top containers and oversized bags that must be picked from the bottom



Wide Area Vacuum Grippers

Ideal for palletizing single containers and even complete pallet layers

As one of the world's largest suppliers of end-of-arm tooling (EOAT) and gripper systems, you can trust our ability to provide you the components, installation training, technical service, and troubleshooting your business needs to keep operations on schedule.

FOOD HANDLING

Piab's advanced End-of-Arm Tooling specializes in removing goods from pans with needle or vacuum technology. Our EOATs also compress the spacing of the products to fit in trays, tubs, or clamshell containers on conveyors. One-size-fits-all solutions simply doesn't work for the industries we work with, which is why our components are always designed to a higher standard.

- Designed to handle fragile products right from the pan
- Wide range of gripping tools
- Innovative engineering to solve your tough challenges
- Product removal from pans with needle or vacuum technology
- Modular system for quick changeovers



Combination Bag Palletizer and Vacuum Depalletizer

Adjustable, versatile bag grippers allow your robots to switftly palletize and depalletize bags



Muffin De-Panning Gripper

Flexible system to handle different shapes/sizes of baked goods



Palletizing Vacuum Plate

Ideal for frozen foods and container handling



Vacuum Cake Tool

Allows for efficient cake and other baked good handling

PRESS TENDING

Piab has deep experience within the automotive industry. We understand your many complex design challenges. Whether you need to unload a press, de-stack blanks, or perform a secondary operation such as bar code labeling or date stamping, our End-of-Arm Tooling can move your press stamping process toward safe, secure, and repeatable blank transfers and placements.

- Heavy-duty and durable materials
- Able to handle long reaches
- Ideal for EOAT multi-tasking operations
- Able to manipulate, tilt, or rotate metal blanks

- Can lift, position, and separate heavy, contoured, or oily blanks
- Precise gripping adds designed flexibility



"HX" End Effector Series for 5+ Axis Robots
Designed for newly developed SAS HX hybrid frame profiles and modular off-the-shelf gripper components



Damage Prevention SensorsProvides a safer and faster production operation while preventing die and press damage



Engine Block GripperIdeal for durable heavy component lifting and precision placement



End EffectorWith Piab patented hybrid "HX" gripper system

As one of the world's largest suppliers of end-of-arm tooling (EOAT) and gripper systems, you can trust our ability to provide you the components, installation training, technical service, and troubleshooting your business needs to keep operations on schedule.

Any part. Any robot. Anywhere.



QUALITY PRODUCTS & SERVICE

We meet or exceed customer expectations by providing superior Robotic End-of-Arm Tooling and Automation Technology. Together with our customers and suppliers, we continuously improve our products and services to assure market leadership.



TECHNICAL SERVICE

Call our toll-free line to speak with a skilled technician or engineer for any troubleshooting or installation questions. Application advice and assistance is also available via phone or email. We also provide an online forum on our website.



ONSITE INSTALLATION AND CRISIS RECOVERY

Our skilled technicians can restock your spare parts, train your personnel, or solve automation problems on your production floor.



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 Piab 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 turn around!



EOAT CERTIFICATION

Piab now offers training at our North American headquarters near Dayton, Ohio with an added benefit: EOAT Certification. We recommend that certification training take place at our corporate facility, so you can take advantage of our training environment and the variety of robots, automation equipment, and tools available.



Innovative Leadership

INNOVATIVE LEADERSHIP

QUICKTOOL

Our QuickTool simple EOAT program helps companies like yours get the job done quickly to meet



your production schedules. Built with our world class gripper off-the-shelf components, lead time for a simple EOAT gripper is only one week.



SAS MANAGED INVENTORY

Our Self Managed Inventory Program (SMI) places parts in your plant when you need them. Piab supplies the parts stocking cabinet at no charge. Usage is monitored and maintained by Piab with safety stock based on your usage to assure you are never out of needed components.



PMAT

PMAT (Piab Modular Automation Tooling) offers adjustability and also rigidity with the same products. PMAT can be used to design robot end-effector tools, ergonomic tools, or fixture tools for use on all types of automation equipment. The tooling consists of connecting parts for welded frames or extruded profiles and swivel arm assemblies with a choice of various "function" attachments.



MYSAS

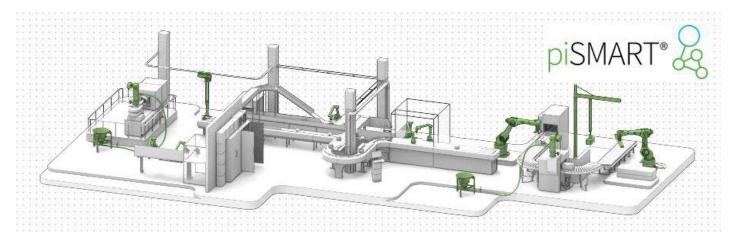
The mySAS app makes managing your robotic EOAT

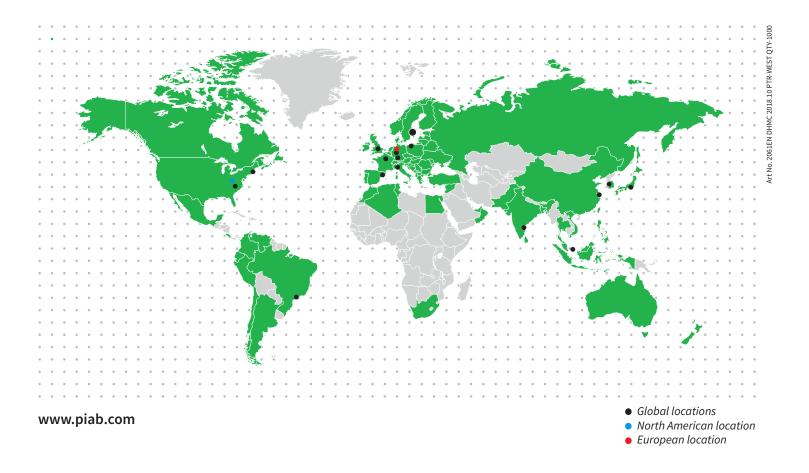
component inventory easier and more convenient than ever before. Key benefits include: Minimized downtime, usage history at your fingertips, and a no-hassle return policy for unneeded components. MySAS is available for iOS and Android devices.



piSMART ™

piSMART™ products employ a user-friendly piSMART™ app for mobile phones and other hand-held devices to gather data such as cycle time, energy consumption, and more, getting them ready for Industry 4.0 factories, where all processes and components are automatically and digitally guided, controlled, and verified.





CENTER OF EXCELLENCE FOR ROBOTIC GRIPPING SOLUTIONS

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