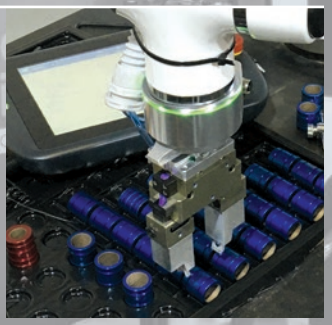
Applied Cobotics™

Advancing Automation
and Training Solutions

Customize

Automate



Scale up

Applied Cobotics

The evolution of manufacturing has brought a mix of sophisticated digital technology, smart automation tools, and an upskilled workforce to our manufacturing facility. Our Applied Cobotics brand represents a significant piece of this factory of the future program. Its scope includes collaborative robots (cobots), unique automated handling systems, and supporting software and 3D printing accessories.

Rack and Load

The Automated Material Lift (AML) system is designed to assist collaborative robots by consistently loading and unloading material dunnage trays within the cobot-accessible work area. The AML system is comprised of a belt-driven lift, arm loader, and rack tower for storage of parts trays. This entire system eliminates the need for a worker to periodically remove and reload material from the cobot work zone, and can extend cobot productivity anywhere from 10- to 20-times that of conventional means.

ARM LOADER

TRAY TOWER

FEATURES

Pallet jack friendly

Cobot wrist camera

Easy cobot setup

Compatible with most cobots

HMI touch screen display for easy lift control

Plug and play solution

Removeable, portable cart

SPECIFICATIONS

Overall dimensions: 55" x 41" x 76"

Dimensions for standard aluminum or stainless tray: 18" x 26"

Tray weight capacity:
Base model = 50 lb
Upgraded model = 150 lb

Tray tower capacity: 17

Meet the Cobots

Applied Cobotics is a proud integrator of Elfin Cobots from Hans. Their six joints allow them to twist and turn to fit many different task configurations, increasing efficiency and product quality while lowering overall costs. In addition, they can offer their human counterparts a safer working environment and higher-skilled roles that ultimately attract younger technicians into the manufacturing labor force.

Choose your Cobot

ELFIN 3 | ELFIN 5 | ELFIN 10

Each cobot employs 6 joints with a full range of ±360º

See the complete specification list on the back page.

Add Grippers

We offer universal 2-finger parallel grippers and 3-finger centric grippers from Schunk. These compact class grippers are equipped with T-slot guidance and the best cost-performance ratio, excelling in clean and slightly dirty surroundings within industries such as automotive, assembly and handling, and machine and plant building.

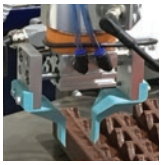
2-FINGER

3-FINGER

More Options

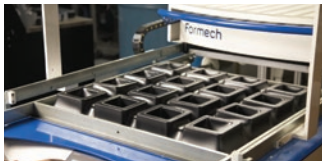
3D PRINTED OPTIONS

Take advantage of 3D printed options like custom end affectors and dunnage trays for parts set-up and queuing. For those looking to DIY their own solutions, we offer large format 3D printers for purchase. Contact our one of our reps to find out more!



THERMOFORMING

We offer a thermoforming process that utilizes vacuum-formed plastics to create manufacturing accessories like dunnage trays and covers.



Cobot Specifications

	ELFIN 3	ELFIN 5	ELFIN 10
			
WEIGHT	**17 kg (37.5 lb)**	**23 kg (50.5 lb)**	**40 kg (88 lb)**
PAYLOAD	**3 kg (6.5 lb)**	**5 kg (11 lb)**	**10 kg (22 lb)**
REACH	**590 mm (23 in)**	**800 mm (31.5 in)**	**1000 mm (39.5 in)**
POWER	**100 W** in typical cycle	**180 W** in typical cycle	**450 W** in typical cycle
JOINT RANGE	**±360°**		
JOINT SPEED	J1-J4 180°/S J5-J6 200°/S	J1-J4 180°/S J5-J6 200°/S	J1-J2 120°/S J3-J4 135°/SJ5-J6 180°/S
TOOL SPEED	**2 m/s (6.5 ft/s)**		
REPEATABILITY	**±0.05 mm (.002 in) / ±0.03 mm (.001 in)** (under normal conditions)		
DEGREES OF FREEDOM	**6**		
COMMUNICATION	**TCP/IP/MODBUS**		
PROGRAMMING	Graphical programming, remote process call		
COLLABORATIVE OPERATION	**10** advanced configurations for safety		
MAIN MATERIAL	Aluminum Alloy		
WORKING TEMPERATURE	**0–50° C (32°–122° F)**		
POWER INPUT	**200–240V AC, 50–60Hz**		

Contact us to find out more details on pricing and quotes, or meet with an Applied Cobotics representative.

Safe Collaboration and Quick Return of Investment

Cobots are quite content to do the repetitive and dull jobs that human operators have traditionally done. Using sophisticated sensors, cobots work next to their human operators without the need for expensive safety fences and door interlocks. This also means no heavy lifting or repetitive injuries for your staff. Instead, they can focus their attention on more high-level tasks like inspections and quality control. In addition to these benefits, your initial investment can be paid back within months, and continue to provide net gains throughout your facility.

Applied Cobotics™ by PBC Linear
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