



ABB FLEXLOADERS



MACHINE TOOL TENDING SOLUTIONS

ABB's FlexLoaders are proven function packages that have simplified the transition from manual to robotic machine tool tending. These pre-engineered designs are easy to integrate, thus saving valuable time and money while offering a versatile array of options to meet application needs. As vision-guided robot systems, FlexLoaders offer high accuracy and advanced features that are user friendly and easily maintained.



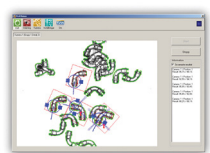
FlexLoader Vision *Accurate Robot Guiding*

The camera identifies the component's location, positioning and orientation, and informs the robot which picks up and maneuvers the part with perfect precision.

The control and communications with the robot are integrated into the software which allows simple and intuitive teach-in.

FlexLoader Vision is open to communicate with a variety of camera sensors to run 2D and semi-oriented 3D applications. The system reverts complex 3D images to well-defined 2D images to increase usability for the operator.

No CAD files are required to teach-in new components.



FlexLoader Vision Benefits

- Simple and intuitive user interface designed for machine tool tending
- Handles an unlimited number of components without mechanical fixtures
- Teach-in time of new workpieces is less than 10 minutes
- Faster changeover time between components
- Parameterized teach-in interface for lathe applications provides a quick and easy user experience
- Pre-programmed robot code provides short install time
- Single point of operating control



FlexLoader FP 100
Compact / Small Batches

- Flexible feeding for small components
- Replaces traditional bowl feeders; can handle many different components
- Easy to build into assembly cells

Component Size: 0.2 - 2.4 in / 5 - 60 mm
Max Component Weight: 0.2 lbs / 0.1 kg



FlexLoader FP 300
Small Components / Short Cycle Times

- A compact feeder for small to medium-sized components
- Built on a single baseplate; easy to install
- Very suitable for castings

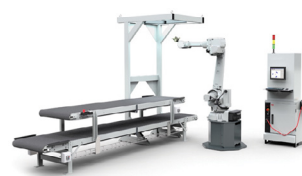
Component Size: 0.2 - 4.7 in / 5 - 120 mm
Max Component Weight: 2.2 lbs / 1 kg



FlexLoader FP 400
Large Components / Short Cycle Times

- Fully automated, from pallet to machine tending
- Perfect for unsorted parts
- Long, unattended running time

Component Size: 0.4 - 9.8 in / 10 - 250 mm
Max Component Weight: 6.6 lbs / 3 kg



FlexLoader FP 600
Highly Flexible / Expandable

- Automates one to three machines
- Highly flexible and expandable
- Handles complex and fragile components in all geometric shapes

Component Size: 3 - 30 in / 76 - 760 mm
Max Belt Load Customizable



FlexLoader FP 800
Straight from the Pallet / All Sizes

- Compact bin picking solution with smart 2D or 3D vision technology
- Can pick parts with a determined pattern and also layers between parts
- Suitable for heavy components

Can handle a great variety of component sizes and weights



FlexLoader FP 850
Pipes or Tubes from Pallet

- Can automate up to three machines
- Suitable for tubular shapes
- Requires less hardware; is guided by a laser sensor at the gripping tool

Tube Length: 10 - 200 in / 250 - 5000 mm
Max Diameter: 20 in / 500 mm



Two Doors / Conveyor

FlexLoader SC 3000
Prepackaged / Ready to Use

- Automates one or two machines
- Choose from two feeding solutions; drawers or conveyor belts
- One-day installation

Max Component Height: 8.7 in / 220 mm
Max Belt Load: 220 lbs / 100 kg
Belt Width: 15.8 in / 400 mm



Two Doors / Drawers



FlexLoader SC 6000
High Capacity / Plug & Play Options

- Can be customized with up to six post-tending processes
- Very user friendly to operate and set up for new components
- One-day installation

Max Component Height: 10.6 in / 270 mm
Max Belt Load: 1102 lbs / 500 kg
Belt Width: 31.5 in / 800 mm