



# 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.

- Simple and intuitive user interface
- Preprogrammed and ready to use
- Can handle an unlimited number of components



### **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 - 1.5 in / 5 - 40 mm  
**Max Component Weight:** 0.2 lbs / 0.1 kg



**FlexLoader FP 200**  
*Nimble / Fast*

- Ideal when speed is important
- Replaces traditional bowl feeders
- Can be equipped with 6-axis, SCARA, or FlexPicker robot

**Component Size:** 0.2 - 2.8 in / 5 - 70 mm  
**Max Component Weight:** 1.1 lbs / 0.5 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

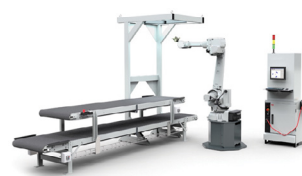
**Component Size:** 0.2 - 4.7 in / 5 - 120 mm  
**Max Component Weight:** 2.2 lbs / 1 kg



**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