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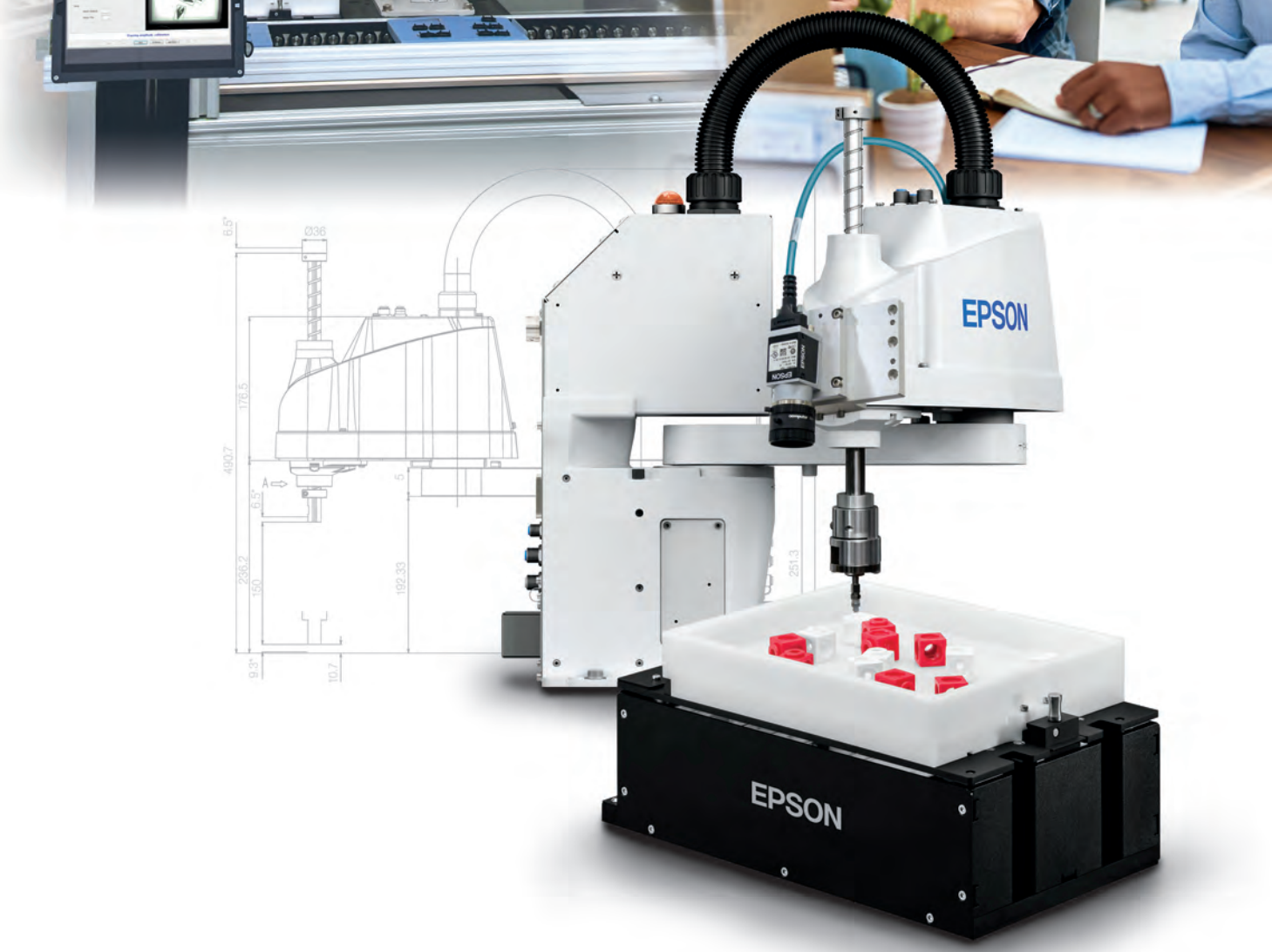
EXCEED YOUR VISION

THE INTELLIFLEX™ FEEDING SYSTEM



Introducing the smarter parts singulation solution.

Powered by Epson® robots, IntelliFlex Software and Vision Guide, the IntelliFlex Feeding System offers a smart alternative to part feeders available in the market today. This revolutionary system eliminates costly, time-consuming retooling and allows manufacturers to work with a wide variety of parts without purchasing new equipment. Integrated with Epson RC+® Development Software, the IntelliFlex Feeding System offers easy setup and configuration from one environment. Its point-and-click interface helps reduce the typical development time required for advanced applications. Smart auto-tuning automatically adjusts the IntelliFlex Feeding System for new parts, giving you a flexible, cost-efficient, future-proof parts singulation solution.

Parts feeding made simple.

High-performance parts-feeding solution — powered by Epson robots, IntelliFlex Software, and Vision Guide

Simple setup and configuration — fully integrated with Epson RC+ Development Software

Point-and-click interface — helps reduce the typical development time required for advanced applications

Flexible parts handling — supports parts from 5 to 40 mm in size

Quick parts changeover — feeder offers easy setup to accommodate different parts for reduced total cost of ownership

Compatible with a wide range of parts — supports simple to complex parts, as well as delicate materials

Smart auto-tuning — automatically adjusts the feeder parameters for new parts setup

Unique directional vibration capabilities — multi-axis vibration technology for optimized parts control and singulation

Backlight options — red, white, blue, green and infrared available

Tray configuration options — ESD/anti-static, anti-stick and anti-rolling available

Reduced development time vs. typical flexible feeders

Fully integrated with the Epson RC+ Development Software, the IntelliFlex Feeding System makes setup and configuration easier than ever. Its point-and-click interface helps reduce the typical development time required for advanced applications, often taking it from weeks down to days.

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1. **Vision Programming**
   - Built-in robot-to-vision calibration and point & click programming
2. **Part Tuning**
   - Automatic parts tuning with vision feeder integration
3. **Parts Control Adjustment**
   - Configuration wizard for defining part separation pick-up area and more

TYPICAL SYSTEM SETUP

1. **Feeder Communications**
   - Low-level protocol using feeder command set
2. **Feeder Tuning**
   - Getting parts to move properly
3. **Vision Setup and Calibration**
   - Calibrating vision system to robot
4. **Vision Programming**
   - Finding parts reliably
5. **System Programming**
   - Robot + Feeder + Vision coordination
6. **Optimization**
   - Fine-tuning and performance optimization

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WARNING

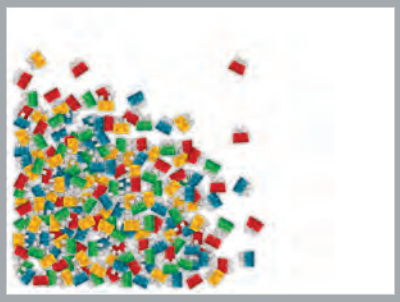
Easy customization to support a wide variety of parts

The IntelliFlex Feeding System works in conjunction with Epson RC+ Development Software to provide a step-by-step approach to system configuration. An easy-to-use wizard makes it simple to set up the feeder to the exact parameters needed for many different part types.

Vision Guide is used with IntelliFlex Software to drive feeder motions and optimize parts singulation.

Multi-axis vibration technology for optimized parts control

1

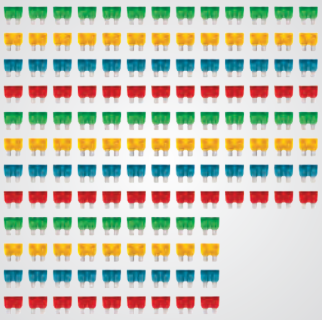


Parts cannot be picked when they are bunched together

2

Vibration technology is used to separate parts so they can be found and picked by the robot

3



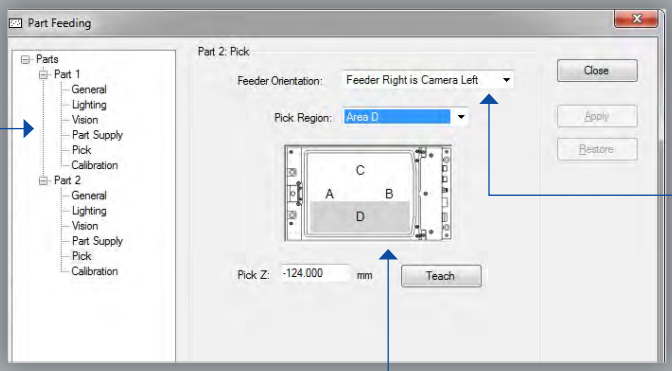
Parts are then separated and precisely placed across the full scope of the pallet

Precision parts calibration with smart auto-tuning

Epson RC+ Development Software also features an intuitive wizard to guide users through customized calibration. Step-by-step, this wizard automatically determines the exact values needed for optimum tuning and calibration.

Part pickup regions maximize parts throughput

Easily set parameters specific to each part, no coding required

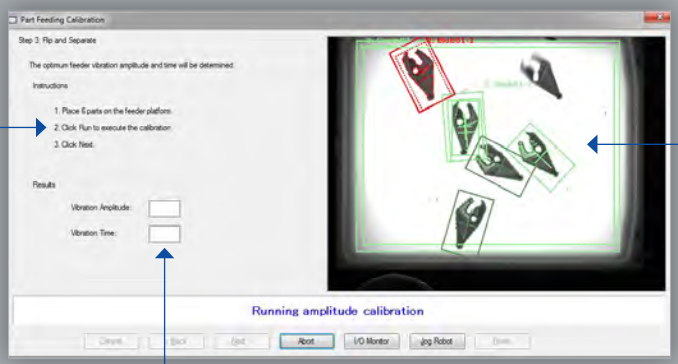


Configures feeder orientation to properly select pickup area without need to modify physical application layout

Define part pickup area to optimize cycle time

Part calibration (tuning) wizard reduces tuning time

3 simple steps to set up flip and separate calibration parameters



Integrated image display window to show part separation results

Automatically computes and displays vibration amplitude and vibration time tuning parameters

Versatile parts compatibility

The IntelliFlex Flexible Feeding System supports a wide array of parts and materials, making it ideal for many different part types. Plus, it offers easy setup, allowing for quick parts changeover and reduced cost of ownership.

Unlike bowl feeders, the IntelliFlex Feeding System can be used for the parts you need today, as well as those you may use in the future. Supporting simple to complex parts, the IntelliFlex Feeding System can handle parts ranging from 5 to 40 mm in size.

Applications:

- Mechanical & Electronic Assembly
- Kitting/Palletizing/Tray Loading
- Material Handling

Parts Materials:

- Plastic
- Rubber
- Metal

Options to meet your needs today and in the future

Choose from a variety of options, designed to meet your needs, based on the parts and materials being handled. Multiple backlight options are available to meet the vision lighting requirements for your specific parts. Tray configuration options are also available to accommodate varying part types.

- **Backlight options** — red, white, green, blue and infrared available
- **Tray configuration options** — ESD/anti-static, anti-stick and anti-rolling available
- **Hopper** — for easy loading of additional parts

The Epson Advantage

Why Choose Epson Robots: As precision automation specialists, the Epson Robots Team has been building automation products for over 35 years. As a leader in small-parts assembly applications, we've introduced many firsts. As a result, our innovative products are hard at work in thousands of manufacturing facilities throughout the world.

Leading Epson Technology

- Epson is the #1 SCARA robot manufacturer in the world
- We introduced the world's first folding-arm 6-Axis robot
- Epson's proprietary QMEMS Technology with special gyro sensors significantly reduces residual vibration, resulting in faster cycle times

6-Axis

What you need, when you need it

- The Epson lineup features 6-Axis and SCARA robots with payloads up to 20 kg and a reach ranging from 175 to 1,480 mm
- We offer a wide range of integrated options including Vision Guidance, Force Guidance and more

Intuitive programming software

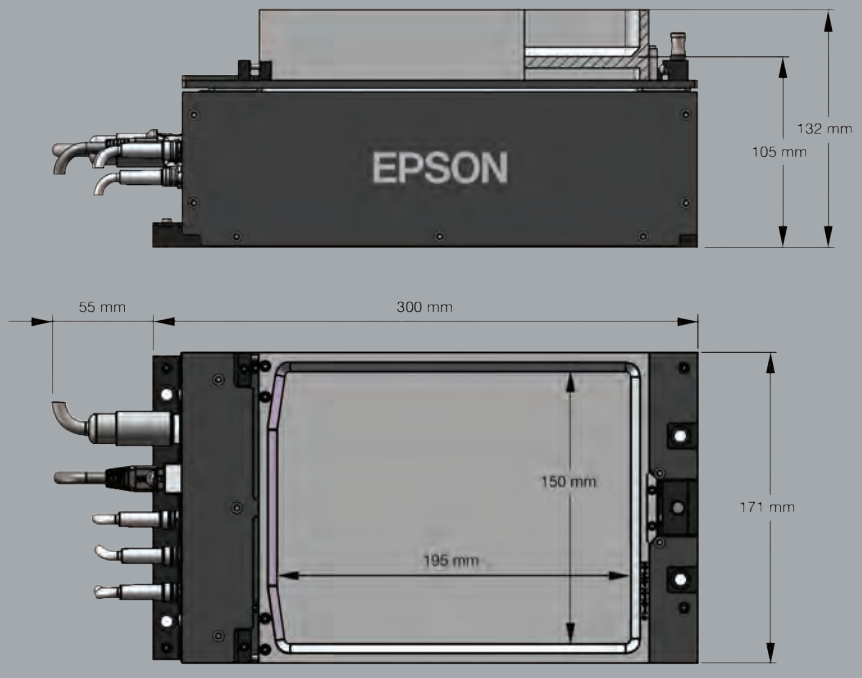
- Epson RC+ software is extremely user-friendly, making automation setup fast and easy

Reliability you can count on

- Our team is dedicated to helping you find the best solution for your automation needs
- Epson robots are long-lasting and require little maintenance

IntelliFlex Feeding System Specifications

Flexible Feeder Specifications	
Model Name	**IntelliFlex 240**
Model No.	RIF 240
Part Size Dimensions	5 - 40 mm
Communication	Ethernet (TCP/IP)
Power Supply	24 V/8 A
Vibration Platform (Length x Width)	195 x 150 mm
Footprint (Length x Width x Height)	300 x 171 x 132 mm
Compatible Robots	G-Series/LS-Series/RS-Series/T-Series/C-Series/N-Series/VT-Series
Compatible Vision Systems	Vision Guide CV2 and PV1
What's in the Box	Flexible Feeder, Vibration Plate, IntelliFlex Software, 5 M Power Cable, & RJ45 CAT5e Cable
Integrated Backlight LED Options	Red/White/Blue/Green/Infrared
Tray Configuration Options	ESD (Anti-Static)/Anti-Stick/Anti-Rolling
Hopper Options	2 Liters and 3 Liters
Support	Customer Service (562) 290-5920 service@robots.epson.com Applications Support (562) 290-5930 applications@robots.epson.com Sales Inquiries (562) 290-5997 info@robots.epson.com



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- Cost-effective, high-quality solutions
- A commitment to the environment

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