

Flexible Parts Feeding with the FF250-ES

The FF250-ES (Embedded Servo) feeder provides advanced part feeding for complex, soft and other difficult parts. By utilizing continuous feed surfaces, part movement in the feeder is guaranteed. This enables feeding a wide variety of part types, including part types previously not conducive to automated feeding techniques (such as silicon and rubber parts).

The embedded controls system provides ease-of-use in deploying the feeder with any robot control system. With universal digital I/O interface this feeder is versatile and yet simple to implement.



FF250-ES



FF250 with Robot

Features

- ✓ Embedded control system
- ✓ Universal control interface using digital I/O
- ✓ Encoder output to support continuous conveyor tracking
- ✓ Emergency Stop interface
- ✓ Works with 110 and 230 VAC / 50-60 HZ
- ✓ Multiple feeders per robot system
- ✓ Integrated backlight option
- ✓ Multiple feed surface options (color & surface texture)

Benefits

- ✓ Compatible with all industrial robot systems
- ✓ Integrated with line and cell safety circuit
- ✓ No need for external control peripherals
- ✓ Compatible with domestic and international power
- ✓ Continuous belt tracking enables high throughput
- ✓ Multiple feeders can present multiple parts for complex assembly applications

Additional benefits include high flexibility for production runs with high mix of parts and short production cycles. The programmable flexibility guarantees the reusability of each assembly cell and decreases total cost of ownership.

FF250-ES Specifications

Throughput (varies with part type)

- Indexing Mode
 - 35 - 45 parts per minute (typical)
 - ~60 parts per minute (maximum)
- Belt Tracking Mode
 - >60 parts per minute possible

Height Adjustment

In-feed belt to pick-up belt 3" - 6" (76 - 152 mm)

Storage Capacity

- Lift Bucket 183 in³ (3 dm³)
- In-Feed Conveyor 305 in³ (5 dm³)
- Return Conveyor 490 in³ (8 dm³)

Max Conveyor Speeds & Drive Type

In-Feed	3.3"/sec (83 mm/sec)	AC Drive
Pick-Up	20"/sec (500 mm/sec)	Servo Drive
Return	13.3"/s (332 mm/sec)	AC Drive

Options

- Pick-Up Conveyor (vision) Belt Selections
 - White Tacky (standard)
 - Black
 - White Polyester
 - White Non-tacky
 - Black Cloth
- Backlight Selections
 - White
 - Red

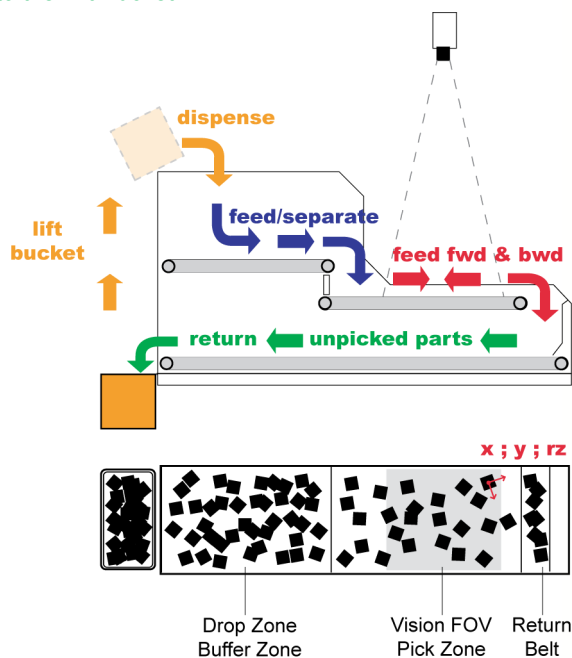
Feeder Operation

Bulk parts are placed in Lift Bucket.
The Lift bucket raises dumping parts onto In-Feed Conveyor.

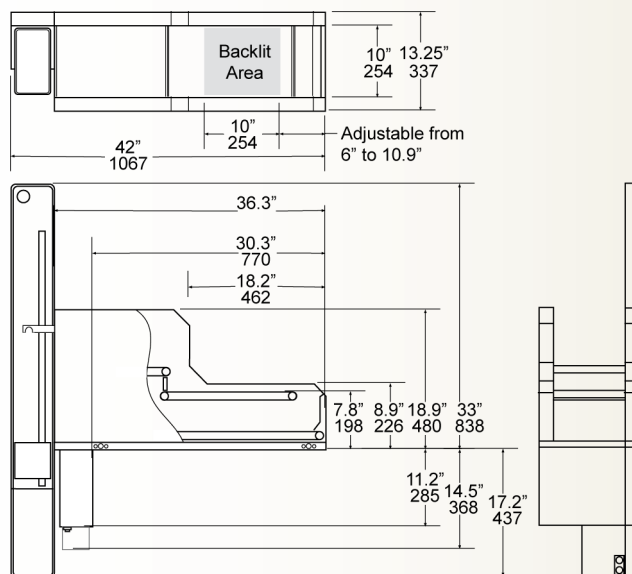
The In-Feed Conveyor advances parts onto the Pick-Up Conveyor.

The Pick-Up Conveyor advances at a faster rate, separating parts and presenting them to the vision system. The vision system locates the desirable parts and the robot picks the parts. The Pick-Up Conveyor advances, dropping unpicked parts onto Return Conveyor.

The Return Conveyor advances re-circulating unpicked parts into the Lift Bucket.



Dimensions



Specifications subject to change without notice