



Dixon Automatic Tool

Assembly Cells

Model 3120



- Complete with:
Driving head, feed system, rotary indexing fixture, machine base, guarding, and controls.
- Controls:
 - Servo System with Servo Controller
 - Touch Screen Panel
 - Easy Programmability
 - Standard Error Messaging
 - Nema 12 Electrical Enclosure
- Guarding:
 - Aluminum Extrusion Structure
 - Light Curtains
 - Mesh Guard Panels
 - One Opto-Touch Hand Tie Down

The Model 3120 Screwdriving Cell is an ideal work station for semi-automatic assembly operations. This cell requires an operator to manually place the workpiece into a work holding fixture and to initiate cycle. A magnatorque rotary servo motor is used to rotate the fixture and workpiece components. This Cell can be fitted with several different screwdriver heads if required for specific driving requirements. The size of the vibratory feeder bowl is determined by size of the fastener. Appropriate operator guards such as light curtains sensors are selected because of the manual placement and removal of workpieces.

Options And Accessories

Screwdriver Heads:

- Pneumatic Motors*:
 - Adjustable Mechanical Clutch
 - Stall Torque Sensing
- DC Electric Motors:
 - Transducer Torque Control
 - Transducer Torque / Angle Control
 - Current Sensing Torque Control
- Servo Motors:
 - Velocity Control
 - Torque/Angle Control
- Depth Control Features:
 - Standard Proximity Switches Sense Forward And Return Positions*
 - Analog Output Of Precision Depth Setting
- Driving Precision:
 - Torque Control
 - Depth Control $\pm 1/2$ Turn
 - Depth Control ± 2 Turn*

Optional Placer Heads:

- Strokes:
 - 50.8 mm - 200 mm
- Pressing Force:
 - 178 N - 889 N
- Pressing Depth Precision:
 - ± 0.063 mm (Fastener Dependent)

Specifications:

- Voltage Standard (120V 60Hz)
- Air Supply (80-100 psi)

Controls*:

- On Screen Coordinate Programming
- Built In Error / Troubleshooting Functions
- Andon Stack Light
- Ready Light To Enter Light Curtain
- Diagnostics Including Password And I/O Diagram
- PLC Controlled
- Modem Access (Optional)

Feeder Bowls:

- Drum Fed
 - Vibratory Feeder
- Feeders are selected based on the customers part requirements. Feeder bowls up to 533 mm.

Nesting / Fixturing:

- Up to 305 mm Bolt Circle
- Total Fixture and Part Weight Up To 4.5 kg For Typical Motion Profiles

Base With Adjustable Feet*:

- Leveling Feet
 - Welded Construction
 - Ground Mounting Surface
- Base sizes up to 1219 mm x 1676 mm. Size is determined by bowl size in conjunction with the size of the Customer's Target part.

* Indicates standard equipment