

MODEL 3500

DIXON STANDARD SCREWDRIVING CELL

[OPTIONAL PART PLACING HEADS]

PROGRAMMABLE FASTENER PLACEMENT ON ROTARY DIAL

- HANDS FREE ASSEMBLY
- INCREASED PRODUCTION
- EASILY RETOOLED
- COST EFFECTIVE
- QUALITY ASSURANCE
- PANEL PROGRAMMABLE

Dixon's Standard Screwdriving Cell is complete with an Auto-fed Screwdriving Head mounted on a Cartesian Side, Feed System, Rotary Dial and Fixtures, Machine Base, Guarding, and Controls. The Screwdriving Cell is ideally suited for applications that require random placement of fasteners into work pieces on the rotary table. This Cell can accommodate multiple fixtures on the 610mm diameter dial plate. The servo slides provide infinite placement positions at each fixtured work-piece. Our flexible cell design enables easy retooling, and reprogramming for future product changes. The Cell can be used for part placement assemblies by replacing the Screwdriver Head with a Part Placement Head. (see chart below).

SCREWDRIVING/PLACING HEAD OPTIONS

Both Blow-Fed or Track-fed Heads are standard and listed in the following tables.



Screwdriving/Placing Head Types



SD-2000
Series



AP-1000
Series

Driving Heads are selected based on the fastener size and torque requirements. For part placement applications, the placement head is selected based on the pressing force requirements.

CONTROLS

An easy to use operator interface provides the following functionality:

- Servo System With Servo Controller
- Touch Screen Panel
- Easy Programmability
- Standard Error Messaging
- Nema 12 Electrical Enclosure

GUARDING

A complete standard guard package that includes the following:

- Aluminum Extrusion Structure
- Light Curtains
- Mesh Guard Panels
- One Opto-Touch Hand Tie Down

Driving Head Options

Head Model	Torque Range	Max. Head Diameter	Max. Screw Length	Bit Thrust @90 psi / 6 Bar	Feed Type
SD-2010	.03 - 1.4 Nm	7 mm	30 mm	106 N	Blow
SD-2020	.20 - 4.0 Nm	11 mm	50 mm	164 N	Blow
SD-2030	.80 - 11 Nm	15 mm	70 mm	258 N	Blow
SD-2040	1.5 - 42 Nm	24 mm	100 mm	422 N	Blow

Placing Head Options

Head Model	Max. Diameter	Max. Length	Pressing Force	Feed Type
AP-1000	15 mm	70 mm	178-889 N	Blow

Certified To ISO 9001:2000

60th Anniversary



Celebrating over 60 years in providing our customers with innovative solutions to their automated assembly needs.

DIXON AUTOMATIC TOOL, INC. PRODUCTS GROUP

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Phone: (815) 226-3000 Fax: (815) 226-8613
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Sample Application



Typical Configuration



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:

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

Nesting / Fixturing:

- Up to 610 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 size of the Customer's Target part.

* Indicates standard equipment

Contact Us for other Dixon Products

- | | |
|-------------------------|---|
| -Automatic Screwdrivers | - Automatic Part Placers |
| -Automatic Nut Runners | - Assembly Work Cells |
| -Automatic Presses | - Handheld Screwdrivers |
| -Vibratory Feed Systems | - Access Modem for remote PLC Programming |

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