



# DIXON AUTOMATIC TOOL, INC.

Products for Automated Assembly

## Model SD-110 Screwdriver



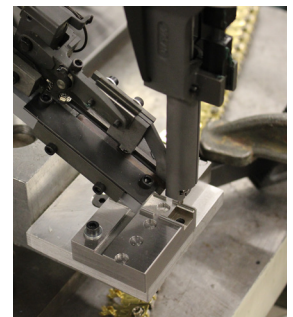
Feed System Information	
Feed System	Vibratory Feeder Bowl
Bowl Size	228.6 - 914mm (9-36 in.)
Track	Incline Gravity Fed Track
Escapement	Mechanically Linked Optional Air Escapement
Piece Part Information	
Shank Diameter	2.84mm - 6.35mm (.112 in. - .25 in.)
Shank Lengths	Max 38.1mm (1.5 in.)
Head Diameters	Max 14mm (.56 in.)

The Model SD-110 Screwdriver is ideally suited for a broad range of assembly applications where accuracy and dependability are required in an automated assembly process. The SD-110 Screwdriver is fully automatic and equipped with a vibratory feeder bowl, hardened inclined steel track, support column, and a transfer escapement. The escapement transfers and positions each screw into the placement jaws of the driving head. The placement jaws hold the fastener's shanks in position until the fastener is engaged in the workpiece. The screwdriver head has built-in sensing to confirm proper insertion of each fastener into the workpiece. The baseplate size is determined by the size of the feeder bowl system. The driving head can provide wide range of driving speeds and torque capacities using either pneumatic or DC electric motors. Each head can be equipped to drive fasteners to a Torque or Depth setting.

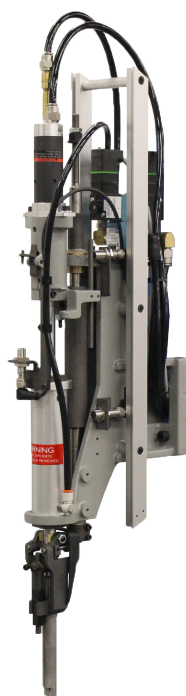


Above: Typical fasteners used in a Model SD-110 Screwdriver.

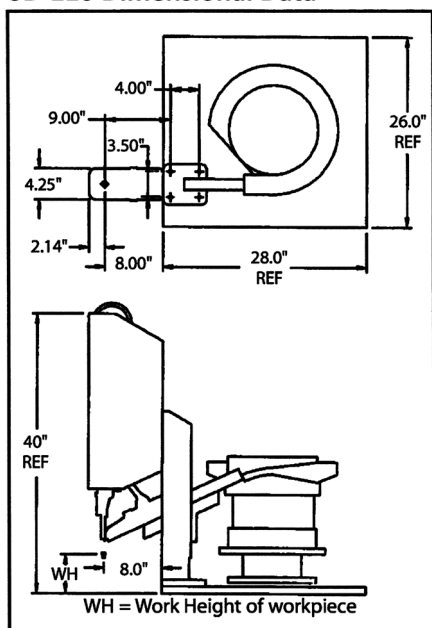
Right: Typical screwdriving application.



# SD-110 Screw Driving Head



**SD-110 Dimensional Data**



**NOTE:** We reserve the right to make further technical changes without notice.

CAD drawings are available

Note: Baseplate varies with bowl size:  
12-inch ID bowl shown

## Standard 100 Series Screw/Nut Driving Head Components

<b>Head Stroke</b>	50.8mm, 76.2mm, 101.6mm, 127mm (2 in., 3 in., 4 in., 5 in.)
<b>Torque</b>	Std: 0.5 - 13.5Nm (4 - 120 in.-lbs )
<b>Proximity Switches</b>	Std: 24 VDC PNP Others Optional
<b>Valves</b>	Four-way pneumatic valve (24 VDC)
<b>Pneumatic Motor Speeds</b>	250 to 3000 RPM
<b>Air Supply</b>	6.3 Bar (90 PSI)

## 100 Series Depth Options

<b>Depth Settings</b>	Std: $\pm 2$ turns Optional: $\pm 1/2$ turn
<b>Drive to Depth</b>	Yes

## 100 Series Torque Options

<b>Clutches</b>	<ul style="list-style-type: none"> <li>0.45 - 2.8Nm (4 - 20 in.-lbs.)</li> <li>1.36 - 3.3Nm (12 - 30 in.-lbs.)</li> <li>2.8 - 5.6Nm (20 - 50 in.-lbs.)</li> </ul> <p>Note: 4.5Nm (40 in.-lbs.) and above requires a commercial pneumatic motor with clutch.</p>
<b>Higher Torque Option</b>	13.5 - 20.3 Nm(120 - 180 in. lbs.) available with optional head stiffener

## Optional Motors

<b>DC Electric</b>	<ul style="list-style-type: none"> <li>Transducer torque control</li> <li>Torque/angle control</li> </ul> <p>Note: All brands supported</p>
<b>Servo Motor</b>	Current sensing torque control



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