



# DIXON AUTOMATIC TOOL, INC.

Products for Automated Assembly

## Model SD-127 Screw/Nut Driver



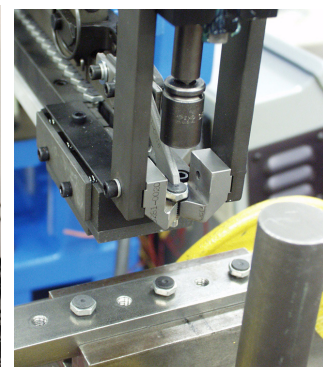
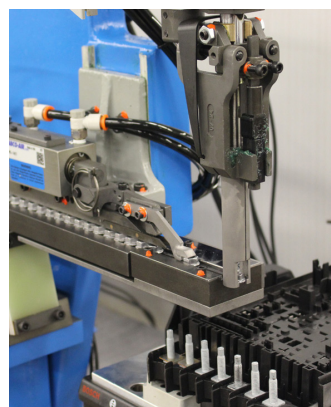
Feed System Information	
Feed System	Vibratory Feeder Bowl
Bowl Size	228.6 - 914mm (9 - 36 in.)
Track	Incline Vibratory Fed Track
Escapement	Air Escapement
Piece Part Information	
Shank Diameter	2.84mm - 6.35mm (.112 in. - .250 in.)
Shank Lengths	Max 101.6mm (4.0 in.)
Head Diameter	Max 25.4mm (1.0 in.)
Nut Across Flats	Max 17mm (.68 in.)

The SD-127 Screw/Nut Driver is designed for automated driving applications. The SD-127 Screw/Nut Driver, provides an extended spindle reach for screwdriving applications. The SD-127 Driver is fully automatic and equipped with a column structure to provide an extended throat reach for the driving head. The vibratory feeder bowl varies in size to suit the fasteners being fed to the driver. A horizontal vibratory feed track moves the fasteners to a transfer escapement which places each fastener into the driving head's placement jaws. The placement jaws hold the fastener's shank in position until the fastener is engaged in the workpiece. The driver 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.

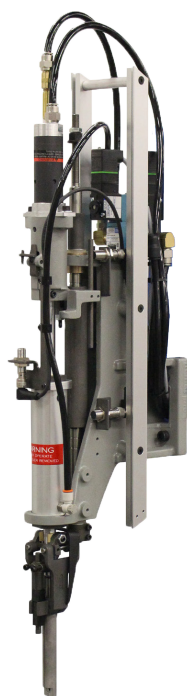


Left: Typical threaded fasteners used in a Model SD-127 Screw/Nut Driver.

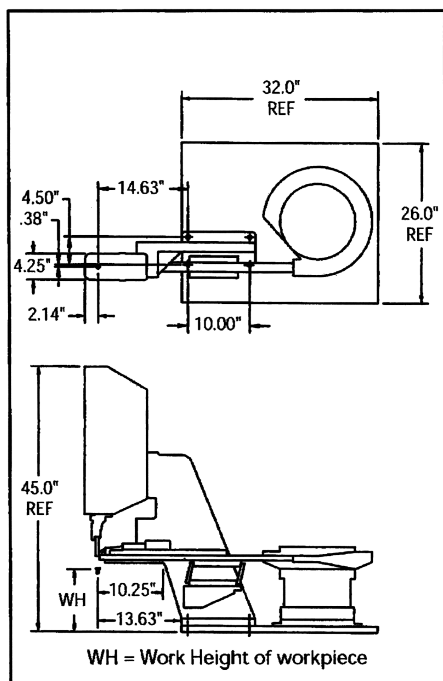
Bottom: Example screw/nut driving applications. Note the extended spindle reach on the left.



# SD-127 Screw Driving Head



**SD-127 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 - 20.3Nm (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



**DIXON AUTOMATIC TOOL, INC.**  
2300 23rd Avenue, Rockford, IL 61104 USA  
P: 815-226-3000 | sales@dixonautomatic.com  
www.dixonautomatic.com