



DIXON AUTOMATIC TOOL, INC.

Products for Automated Assembly

Model SD-111 Screw/Nut Driver



The Model SD-111 Screw/Nut Driver is designed for a broad range of screws and nuts, including fasteners with extremely short body lengths and captive washers. The SD-111 Driver is fully automatic and equipped with a vibratory feeder bowl, a horizontal hardened vibratory feed track, support column, and a transfer escapement. The escapement transfers and positions each fastener into the placement jaws of the driving head. The placement jaws hold the fastener's shank in position until the fastener is engaged in the workpiece. The driving 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 Screwdriver can provide a 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.

Feed System Information	
Feed System	Vibratory Feeder Bowl
Bowl Size	228.6 - 914mm (9-36 in.)
Track	Incline Vibratory Fed Track
Escapement	Mechanically Linked Optional Air Escapement
Piece Part Information	
Shank Diameter	2.84mm - 6.35mm (.112 in. - .25 in.)
Shank Lengths	Max 101.6mm (4 in.)
Head Diameters	Max 25.4mm (1 in.)
Nut Across Flats	Max 17mm (.68 in.)



Left: Typical nut driving application.

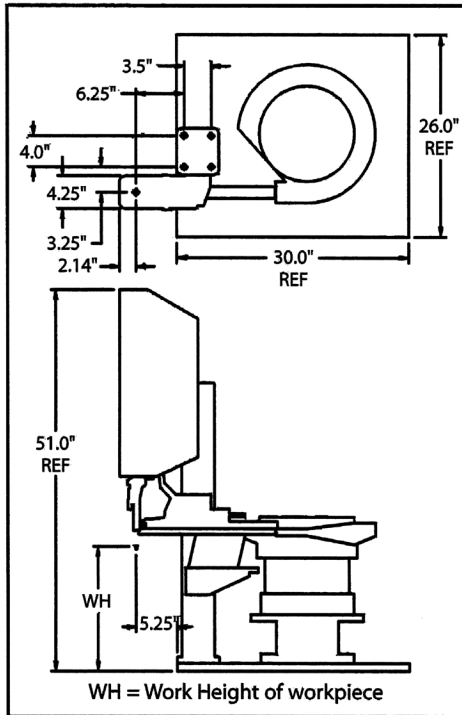


Below: Typical fasteners driven by a Model SD-111 Screw/Nut Driver

SD-111 Screw Driving Head



SD-111 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

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

100 Series Depth Options

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

100 Series Torque Options

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

Optional Motors

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



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