



Dixon Automatic Tool, Inc.

100 Series Screw/Nut Driving Head Model SD-127 Screw/Nut Driver With Extended Throat And Vibratory Bowl



The Model SD-127 Screw/Nut Driver, which is similar to the Model SD-111, provides a heavy-duty structure and extended spindle reach for automated screwdriving applications.

The Model SD-127 Screw/Nut 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 placement jaws of the screw/nut driving head. The placement jaws hold the fastener's threads in position until the fastener is engaged in the workpiece. The screw/nut 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.

Product Specifications

Shank Diameter	2.2 - 19.1 mm (#2 - 3/4 in.)
Shank Lengths	Max 101.6 mm (4.0 in.)
Head Diameter	Max 63.5 mm (2.5 in.) Hex Nuts: max 17.2 mm (0.68 in.)
Disc Shaped Parts	Max 63.5 mm dia. (2.5 in. dia.)

Feed System Information

Feed System	Vibratory Feeder Bowl
Bowl Size	228.6 - 914.4 mm (9 - 36 in.)
Track	Vibratory Inline/Extended Throat
Escapement	Transfer Escapement

Contains all options from base head

100 Series Screw/Nut Driving Head



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



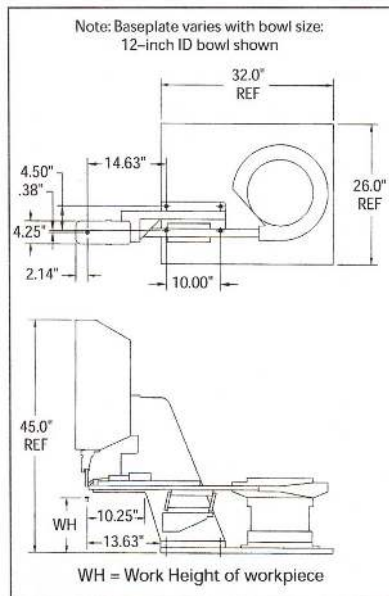
Bottom: Example screw/nut driving applications. Note the extended spindle reach on the left.



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SD-127 Dimensional Data



NOTE: We reserve the right to make further technical changes without notice.
CAD drawings are available

Standard 100 Series Screw/Nut Driving Head Components

Head Stroke	50.8 mm, 76.2 mm, 101.6 mm, 127 mm (2 in., 3 in., 4 in., 5 in.)
Torque	Std: 0.5 - 13.5 Nm (4 - 120 in.-lbs)
Proximity Switches	Std: 24 VDC PNP Others optional
MC-9 Control Pac	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 - 2.8 Nm (4 - 25 in.-lbs) 1.7 - 3.9 Nm (15 - 35 in.-lbs) 2.8 - 5.6 Nm (25 - 50 in.-lbs) Note: 4.5 Nm (40 in.-lbs) and above requires a commercial pneumatic motor with clutch.
Higher Torque Option	13.5 - 20.3 Nm (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 Note: All brands supported
Servo Motor	Current sensing torque control

The SD-100 Series Screw/Nut Driving Head is designed for automated driving applications. The head can be purchased untooled or tooled for your specific production requirements with a feeder, trackage, and placement jaws.

The SD-100 Series Screw/Nut Driver can be furnished with a wide range of driving speeds and torque capacities using either DC electric or pneumatic motors. A torque and depth sensing control verify when a fastener is properly driven during each driving cycle and accuracy can be achieved in various ways depending on the application requirements. Depth settings can be held to ± 2 turns with standard tooling. Closer depth tolerances can be achieved with optional controls. While driving, each fastener is held in the placement jaws until the fastener is properly engaged. The placement jaws are then opened mechanically.