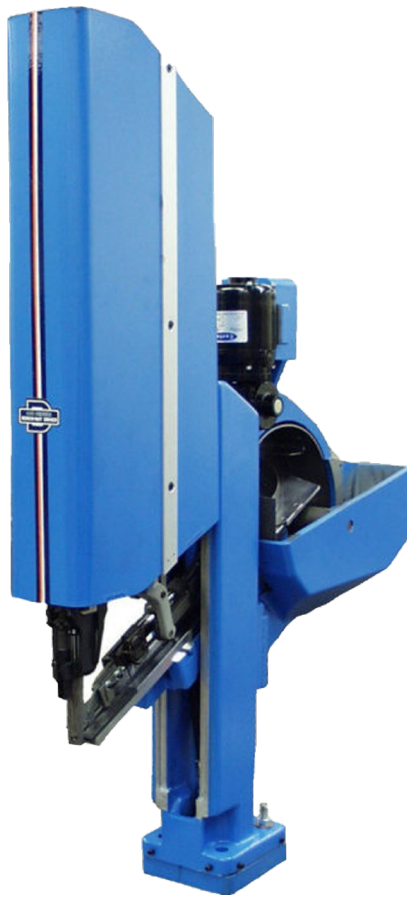




DIXON AUTOMATIC TOOL, INC.

Products for Automated Assembly

Model SD-107 Screwdriver



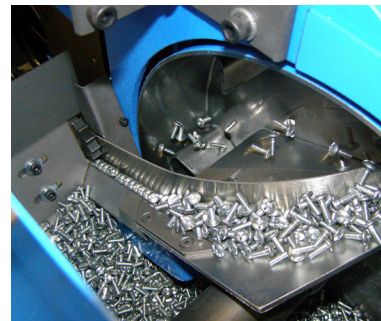
The Model SD-107 Screwdriver is ideally suited for operator-based work stations where manually placed sub-assemblies are positioned under the driving head. The SD-107 Screwdriver is fully automatic and equipped with a rotary hopper, hardened inclined steel track, support column, and a transfer escapement. The escapement transfers and positions each screw into the placement jaws of the driving head. The placement jaws hold the screw shank 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 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.

Feed System Information

Feed System	Rotary Drum Hopper 2458 cubic cm. (150 cubic in.)
Track	Incline Gravity Fed Track
Escapement	Mechanically Linked Optional Air Escapement

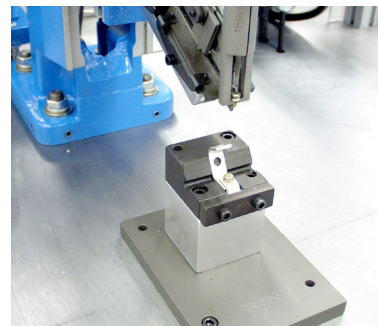
Piece Part Information

Shank Diameter	2.8mm - 6.35mm (.110 - .25 in.)
Shank Lengths	Max. 25.4mm (1.0 in.)
Head Diameters	Max. 14mm (.55 in.)



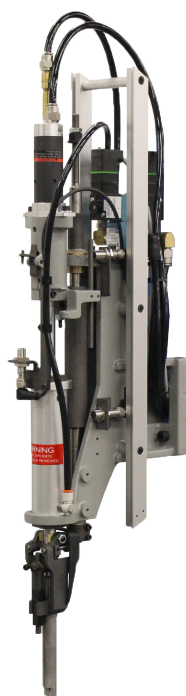
Left: A view inside the rotary hopper as it loads the incline track.

Right: Typical fasteners used in a Model SD-107 Screwdriver

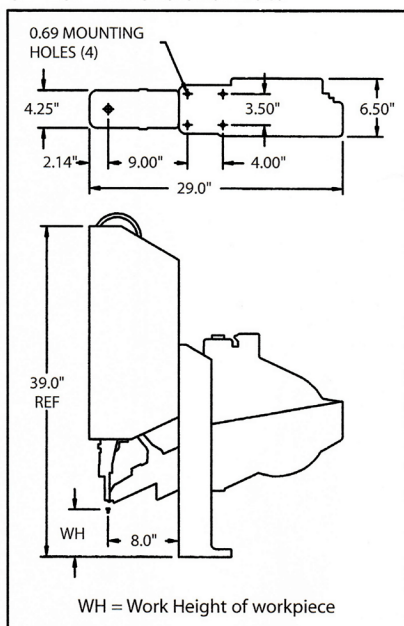


Left: A typical screwdriving application

SD-107 Screw Driving Head



SD-107 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	50.8mm, 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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