

## DIXON AUTOMATIC TOOL, INC. Products for Automated Assembly

## **Model SD-120 Screwdriver**



Feed System Information	
Feed System	Vibratory Feeder Bowl
Bowl Size	228.6 - 914mm (9 - 36 in.)
Track	Tube Gravity or Blow Tube
Shuttle Style	Mechanically Linked
Escapement	Optional Air Escapement
<b>Piece Part Information</b>	
Shank Diameter	2.2mm - 22mm
	(.08 in87 in.)
Shank Lengths	Max 50.8mm
	(2.0 in.)

The Model SD-120 Screwdriver is ideally suited for headless fasteners and threaded studs for a broad range of assembly applications. The Screwdriver provides accuracy and dependability required in an automatic process. The SD-120 Screwdriver is fully automatic and equipped with a vibratory feeder bowl, a gravity feed tube, support column, and a cross shuttle escapement. The escapement transfers and positions each fastener into the placement jaws of the screwdriving head. The placement jaws hold the fastener in position until the fastener is engaged in the workpiece. The Screwdriver can be equipped to drive fasteners to a Torque or Depth setting. 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.





Above: Example screw driving applications for a Model SD-120 Screwdriver.

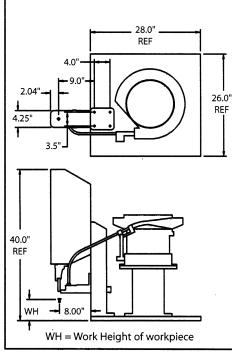


Left: Typical headless fasteners driven by a Model SD-120 Screwdriver

## **SD-120 Screw Driving Head**



SD-120 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 inlbs.)	
Proximity	Std: 24 VDC PNP	
Switches	Others Optional	
Valves	Four-way pneumatic valve	
	(24 VDC)	
Pneumatic	250 to 3000 RPM	
Motor Speeds		
Air Supply	6.3 Bar (90 PSI)	
<b>100 Series Depth Options</b>		
Depth	Std: ±2 turns	
Settings	Optional: ± 1/2 turn	
Drive to	Yes	
Depth		
<b>100 Series Torque Options</b>		
Clutches	• 0.45 - 2.8Nm (4 - 20 inlbs.)	
	• 1.36 - 3.3Nm (12 - 30 inlbs.)	
	• 2.8 - 5.6Nm (20 - 50 inlbs.)	
	Note: 4.5Nm (40 inlbs.) and	
	above requires a commercial pneumatic motor with clutch.	
Higher	13.5 - 20.3Nm(120 - 180 in. lbs.)	
Torque	available with optional head	
Option	stiffener	
Optional Motors		
DC Electric	Transducer torque control	
	Torque/angle control	
	Note: All brands supported	
Servo Motor	Current sensing torque control	



## DIXON AUTOMATIC TOOL, INC.

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