

DIXON AUTOMATIC TOOL, INC. Products for Automated Assembly

Model SD-116 Screwdriver



Feed System Information	
Feed System	Vibratory Feeder Bowl
Bowl Size	228.6 - 914mm (9 - 36 in.)
Track	Incline Gravity Fed Track
Escapement	Mechanically Linked Optional Air Escapement
Piece Part Information	
Shank Diameter	2.84mm - 6.35mm (.112 in25 in.)
Shank Lengths	Max 38.1mm (1.5 in.)
Head Diameters	Max 14mm (.56 in.)

The Model SD-116 Screwdriver is ideally suited for automated screwdriving applications. The driver can be tooled for a broad range of fasteners. The SD-116 Screwdriver is fully automatic and equipped with a vibratory feeder bowl system and hardened inclined steel track and escapement. The track is mounted alongside the support column for easy access. The escapement transfers and positions each fastener into the placement jaws of the screwdriving head. The placement jaws hold the fastener's 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 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.



Ideal when workpiece must be positioned under the track tooling. Work area under the driving spindle is provided by mounting the screwdriver on the side of the column. Also used when adjusting the track for two sizes of fasteners.

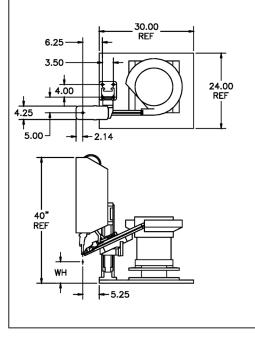
Below: Typical screws driven by a Model SD-116 Screwdriver



SD-116 Screw Driving Head



SD-116 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 - 13.5 Nm	
	(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)	
100 Series Depth Options		
Depth	Std: ±2 turns	
Settings	Optional: ± 1/2 turn	
Drive to	Yes	
Depth		
100 Series Torque Options		
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.

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