

# STICKSCREW® System

The StickScrew system is an automated, robotic system which installs PEM® StickScrew brand screws. Simply attach the StickShooter driver to the carriage, initially program the robot, place the workpiece into the nesting fixture, activate the robot, and the screw insertion process begins. When the job is completed, the robot automatically returns to the home position for workpiece unload and reload. The X/Y positioning table can accommodate multiple applications. The StickShooter driver holds up to 110 serially connected hex head screws. To reload, simply insert a new stick into the back of the driver and advance to the head of the first screw.

**STICKSCREW®**  
PRODUCTS




- Simultaneous control of X, Y, and Z axes.
- Rapid set-up.
- Compact size and flexibility.
- Reliable precision.
- Simplified inventory control.
- Torque reliability and consistency.
- Self-contained.
- Major productivity increases in small
- StickShooter™ driver accommodates screw insertion interchangeable nose assemblies.
- Easily programmable with teaching pendant.



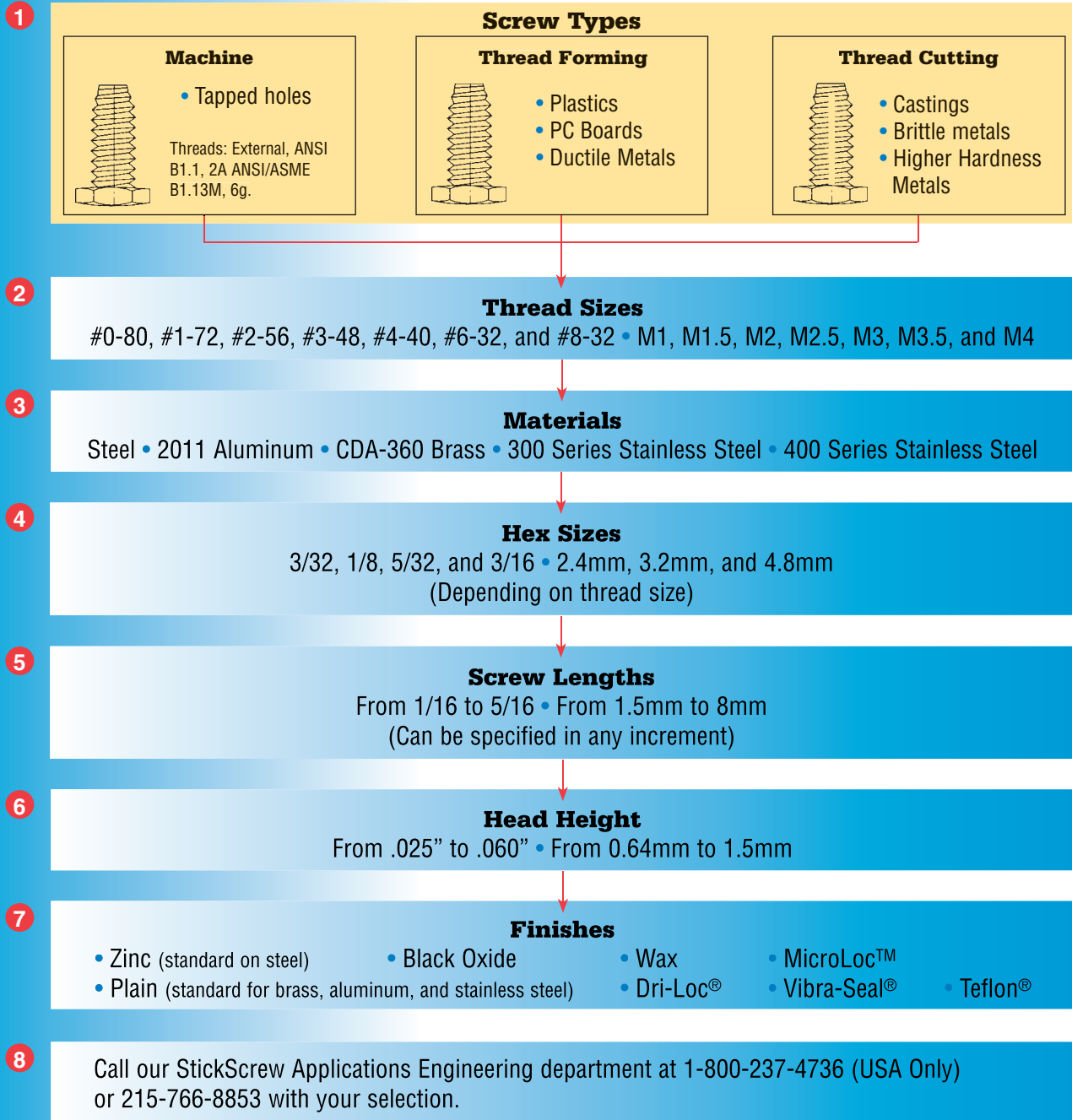
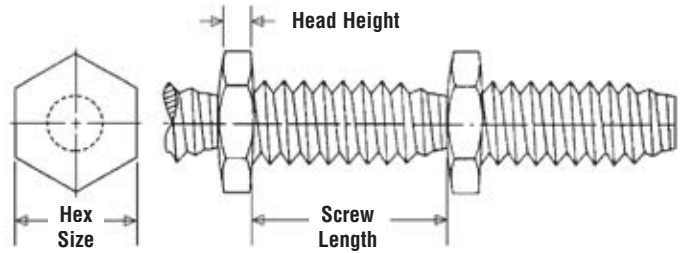
## Specifications

Range of operation	X axis	200mm / 7.87"
	Y axis	200mm / 7.87"
	Z axis	50mm / 1.97"
Speed	PTP (X,Y)	5~500mm/sec / 0.2~19.7"/sec
	PTP (Z)	2.5~250mm/sec / 0.1~9.8"/sec
	CP (X,Y,Z)	0.1~500mm/sec / 0.004~19.7"/sec
Repeatability accuracy	X,Y, & Z axes	±0.01mm / ±.0004"
Worktable capacity		7 kg / 15.4 lbs.
Teaching method		Remote teaching MDI
Drive method		5-phase stepping motor
Control method		PTP and CP
Number of controllable axes		3
External interface		RS232-C
External input/output		16 I/O (24 I/O option)
PLC function		50 programs, 100 steps/1 program
Program capacity		100 programs
Data memory capacity		6,000 points or 100 programs
Program system		Memory card
CPU		32 bit
Dimensions	Width	320mm / 12.6"
	Depth	377mm / 14.8"
	Height	622mm / 24.5"
Weight		18 kg / 39.7 lbs.
Power source		Dual voltage 100~200V
Consumption current		200VA
Working ambient temperature		0~40°C / 0~104°F
Relative humidity		20~95% no condensation

Specifications are for the robot pictured. Larger robots are available.

# STICKSCREW Options

The following chart lists the available screw options and takes you through the selection process. **1)** Select the screw type, **2)** Select the material, **3)** Select the thread size, **4)** Choose from the hex sizes available for that thread size, **5)** Choose the screw length, **6)** Select the head height, **7)** Choose the finish, and **8)** Call our StickScrew Applications Engineering department at 800-237-4736 (USA Only) or 215-766-8853 with your selection.



*Dri-Loc® and Vibra-Seal® are registered trademarks of Loctite Corporation. Teflon® is a registered trademark of Dupont.*

**PennEngineering®**

[www.pemnet.com](http://www.pemnet.com)

**North America:** Danboro, PA 18916 USA • E-mail: [info@pemnet.com](mailto:info@pemnet.com) • Tel: +1-215-766-8853 • Fax: +1-215-766-0143 • 800-237-4736 (USA Only)  
**U.K. And Europe:** Doncaster, England • E-mail: [uk@pemnet.com](mailto:uk@pemnet.com) Tel: +44 (0)1302 765700 • Fax: +44 (0)1302 367580  
**Asia/Pacific:** Singapore • E-mail: [singapore@pemnet.com](mailto:singapore@pemnet.com) • Tel: +65-6-745-0660 • Fax: +65-6-745-2400  
 Shanghai, China • E-mail: [china@pemnet.com](mailto:china@pemnet.com) • Tel: +86-21-5868-3688 • Fax: +86-21-5868-3988