

SPECIFICATIONS

Force Range	450 LBF(2 kN) to 21,807 LBF(97 kN)
Repeatability	±1% of Force Setting
Max Riveting Capacity	M10 Nut M8 Stud M6 Standoff Carbon Steel
Throat Depth	25 inches(650 mm)
Throat Height	18 inches(450 mm)
Stroke	8 inches(200 mm)
Fastener Sizes	2-56 to 1/2-13 (M2 to M12)
Pump	Dual
Touch Screen	10 inches(254 mm)
Control Panel	Touch Screen
Main Power	3 kW
Current	8A
Hydraulic Oil	46/32
Oil Tank Reservoir	18.5 Gallons(70 Liters)
Air Pressure	87 psi(0.6 Mpa)
Power Supply	380V 3 Phase 50-60Hz
Size (D*W*H)	61.5in x 42in x 87.4in (1,560mm x 1,070mm x 2,220mm)
Weight	2,425 LBS(1,100 kg)



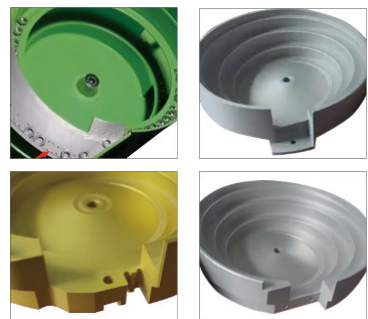
FASTENER INSERTION TECHNOLOGIES

TTF-22™

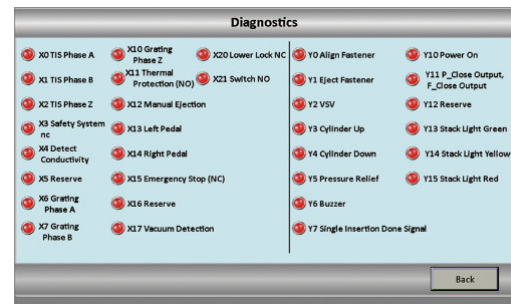


Power Options:

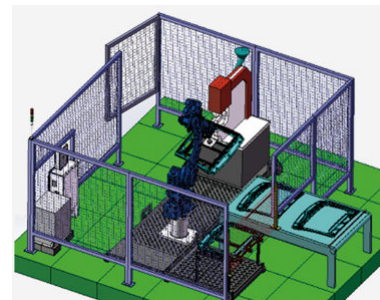
220V, 240V, 400V
415V, 480V
50-60Hz



Modular Automatic-Feed System (MAS)



Robot Riveting Cell



Robot Riveting Workstation



For inquiries please contact: sales@pencomsf.com
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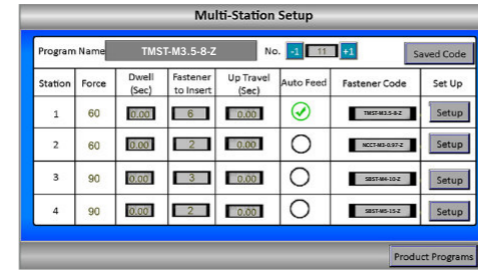
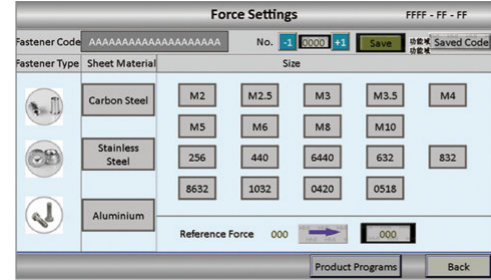
A: Positive Stop System

This type of adjustable control energizes a solenoid valve to extend or retract the cylinder at the appropriate time. When the extend valve is energized, the cylinder begins to extend and it moves until it hits a stop at the end of its travel. When the solenoid for retraction is energized, the shaft will begin to retract until it hits the stop at the end of its travel. This is an advantage in softer materials such as PCB, plastic, and aluminum.

B: Easier and Faster Programming

Single Station Setting: Operators can set the force, dwell time, and up travel from this single station screen.

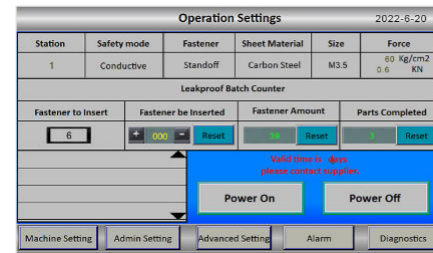
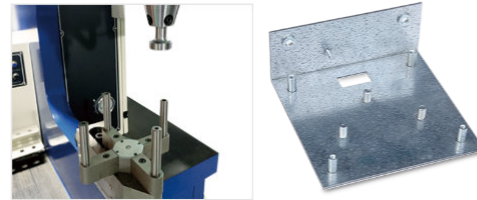
Multi-Station: This screen allows the operator to insert more than one fastener in a program. Each station can be configured to have its own individual force, dwell time, fastener quantity, and up travel.



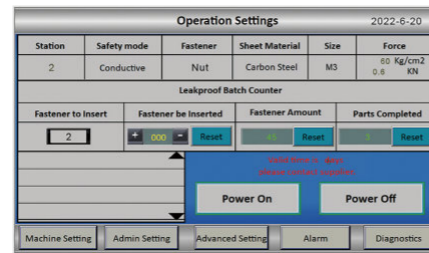
When the fastener fails to feed into the shuttle in the automatic feed program, the upper tool will continue its downward motion to press; however, the batch counter will not count the insertion.

C: Automatic Turret Insertion System (ATIS)

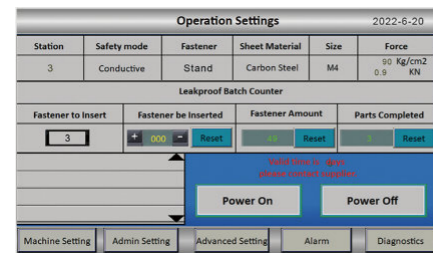
- A. Install up to four different fasteners in one program. Turning the turret will automatically convert to the appropriate pressure and dwell time.
- B. The PLC connected to the turret will follow the programming instructions for each individual fastener installation.
- C. The batch counter will automatically count the number of installed fasteners in a single application, and features a buzzer to indicate when the total installations are complete.



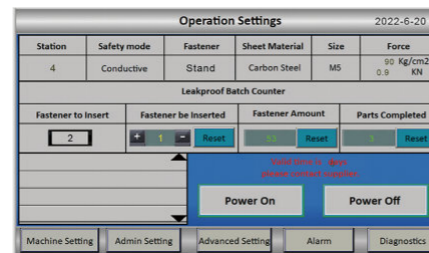
Station 1: TMST-M3.5-8-Z



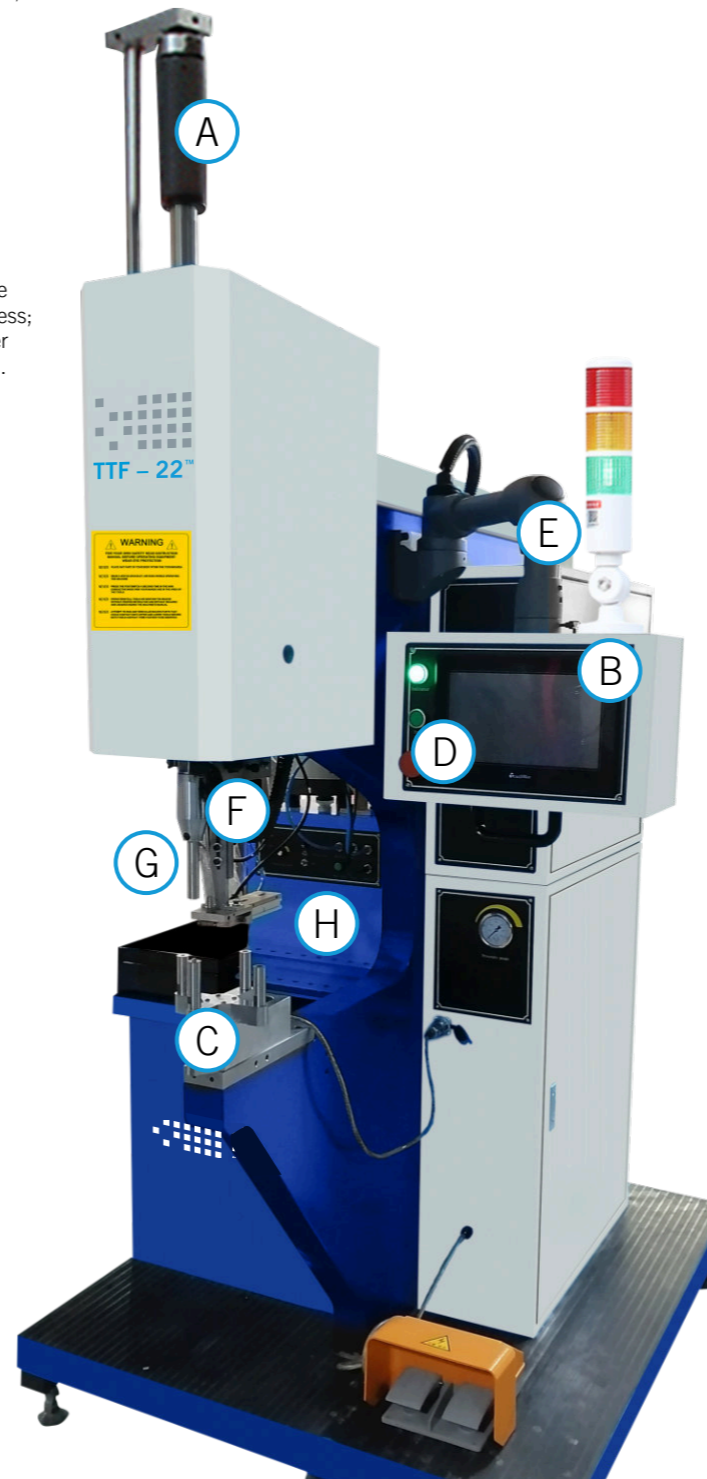
Station 2: NCCT-M3-0.97-Z



Station 3: SBST-M4-10-Z

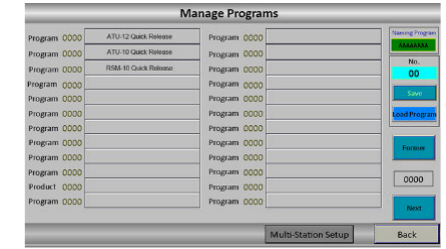
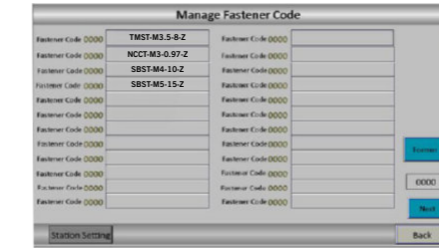


Station 4: SBST-M5-15-Z



D: Programs

A 10-inch touch screen stores up to 200 customized programs and fastener databases.



E: Ergonomics

Operator control panel is adjustable in 2 directions.

F: Laser Locating

This system allows the operator to see where each fastener will be installed with precision.

G: Safety System

This feature reduces risk and harm to operators. As the press is in motion, it will stop when encountering a foreign object.

Optional

H: Modular Automatic-Feed System (MAS)

MAS handles nuts, studs, and standoffs ranging from M2 to M6 (2-56 to ¼-20) and a maximum length of 25mm (1in). This system features a high-quality vibration bowl for the movement of parts, and a variable frequency vibration controller.

Manual Tooling Package

Including 31, 33, or 49 piece manual tool kits, J-frame, and fixing base.



MSTP-33(Metric)



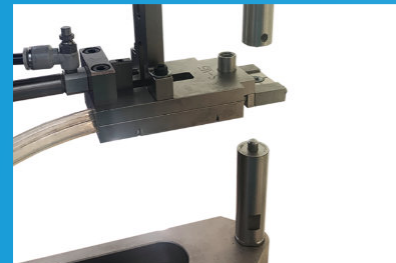
ISTEP-35/49(Imperial)



J-frame and fixing base is perfect for boxes, flanges, and other hard to reach or maneuver locations.

Automatic Tooling System (Optional)

1. Shuttle Nut Tooling System



2. Automatic Bottom Feed Tooling



3. ABFT With Part Clearance



4. Shuttle Stud Tooling System



5. Shuttle Standoff Tooling System



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