

SPECIFICATIONS

Force Range	450 LBF(2 kN) to 12,814 LBF(57 kN)
Repeatability	±1% of Force Setting
Max Riveting Capacity	M10 Nut M8 Stud M6 Standoff Carbon Steel
Throat Depth	18 inches(450 mm)
Throat Height	16 inches(400 mm)
Stroke	8 inches(200 mm)
Fastener Sizes	2-56 to 3/8-16 (M2 to M10)
Pump	Single
Touch Screen	7 inches(178 mm)
Control Panel	Touch Screen
Main Power	2.25 kW
Current	6A
Hydraulic Oil	46/32
Oil Tank Reservoir	15.8 Gallons(60 Liters)
Air Pressure	87 psi(0.6 Mpa)
Power Supply	380V 3 Phase 50-60Hz
Size (D*W*H)	36.6in x 43.3in x 78.7in (930mm x 1,100mm x 2,000mm)
Weight	1,433 LBS(650 kg)



FASTENER INSERTION TECHNOLOGIES

SE-21™

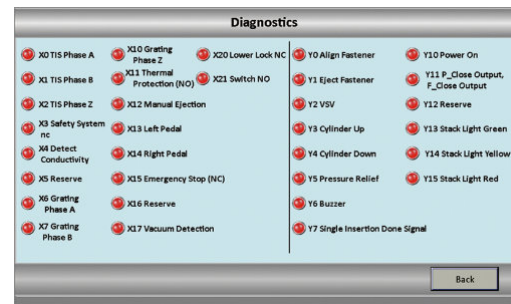


Power Options:

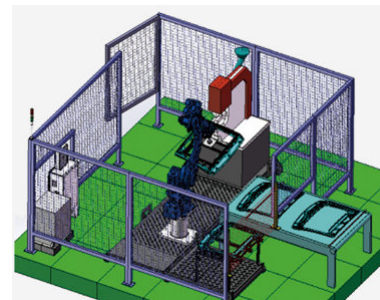
220V, 240V, 400V
415V, 480V
50-60Hz



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: Batch Counter/Stroke Adjustment

Workpiece Counter: This counts the individual number of completed workpieces.

Batch Counter: 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.

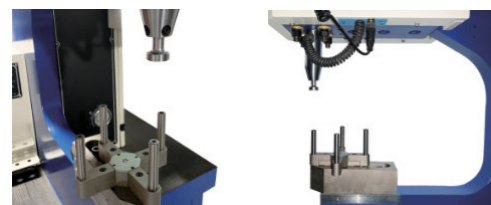
Dwell Time: The length time that force is applied between the upper and lower tools when inserting a fastener. Time range 0 to 2 seconds.

Up Travel: This is the position that the upper tool returns to after insertion is completed. Time range 0 to 2 seconds.

Optional

C: Turret Insertion System (TIS)

Manually insert up to 4 parts at a time for quicker installations.



D: Easy Touch HMI

7 inch display, quick setting touch screen, button control, PLC system, easy automation I/O communication.

E: 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

F: Laser Locating

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



G: Quick Force Setting

Allowing the operator to find the correct force in 10 seconds, press the up or down pedal to increase or decrease pressure.



Pressure Gauge / Force Indicator

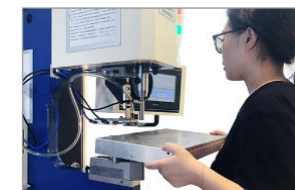
Pressure / Force Adjustment Control
Turn clockwise to increase pressure, counter-clockwise to decrease.

		M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10	M12	M16	M20	M25	M32	M40	M50	M60	M80	M100	
Carbon Steel	kg/cm ²	45	95	95	110	125	170	170	45	75	80	120	130	160	170	200	250	300	350	400	450
	EN	11.1	14.7	22.3	28.9	33.4	44.5	44.5	11.1	19.1	20.9	30.3	33.4	42.5	44.5	51.4	64.5	78.4	93.8	109.8	125.8
Stainless Steel	kg/cm ²	195	190	200			195	195	195	190	205										
	EN	40	50	53			40	40	40	40	45										
Aluminum	kg/cm ²	35	60	60	75	95	110	115	35	65	65	95	95	115	115	145	145	185	225	265	305
	EN	8.9	12.9	15.6	20	24.5	28.9	29.9	8.9	16.9	16.9	24.5	24.5	28.9	28.9	36.9	36.9	46.9	56.9	66.9	76.9
Carbon Steel	kg/cm ²	60	80	80	85	105	120	130	60	80	80	100	100	120	130	150	150	180	220	260	300
	EN	13.4	13.4	13.4	20	22.5	28	31.6	31.6	13.4	13.4	20	22.3	28.9	31.2	31.2	38.9	47.9	56.9	65.9	74.9
Stainless Steel	kg/cm ²	180	180	180	185	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
	EN	40	40	40	43.3	44.5	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
Aluminum	kg/cm ²	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	EN	7.8	7.8	7.8	12.4	12.4	13.4	25	25	7.8	7.8	12.2	12.2	13.4	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Carbon Steel	kg/cm ²	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	EN	9.8	9.8	9.8	14.7	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
Stainless Steel	kg/cm ²	95	95	95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	EN	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Aluminum	kg/cm ²	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	EN	4.9	4.9	4.9	7.8	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7

Optional

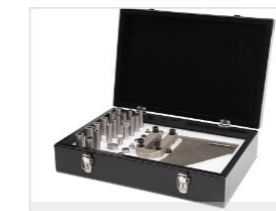
H: Modular Automatic-Feed System (MAS)

MAS handles nuts, studs, and standoffs ranging from M2 to M6 (2-56 to 1/4-20) and a maximum length of 25mm (1inch). This system features a high-quality vibration bowl for the movement of parts, and a variable frequency vibration controller.

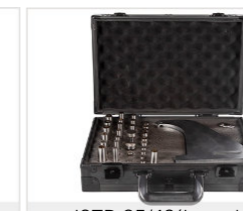


Manual Tooling Package

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



MSTP-33(Metric)



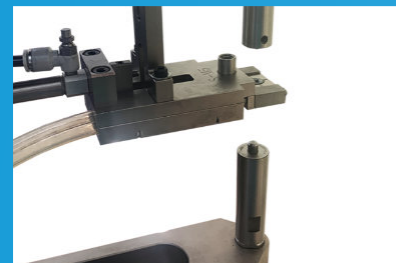
ISTP-35/49(Imperial)



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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