

680 *High-speed Irregular Shape Insertion Machine* **superfast**

Faster, Smaller, More Flexible Universal
High-speed Irregular Shape Insertion Machine
Three Cameras | Simultaneous Capture | Compact Size | Space-saving



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Solution for Irregular Shape Insertion Machine, from Small Batch Multivariable to Large Batch Production

680 Superfast integrates the visual, motion control, and deep learning algorithms as its core components. Its performance, precision, flexibility, and compatibility have reached industry-leading levels, capable of meeting your production needs from small-batch, multi-variety to large-scale production.

5300

Cycles per Hour
(Cph)

0.68

Placement Maximum Speed
(S/C)

± 0.02

Repeat Positioning Accuracy
(mm)

≥ 1.33

Process Capability Index
(CPK)

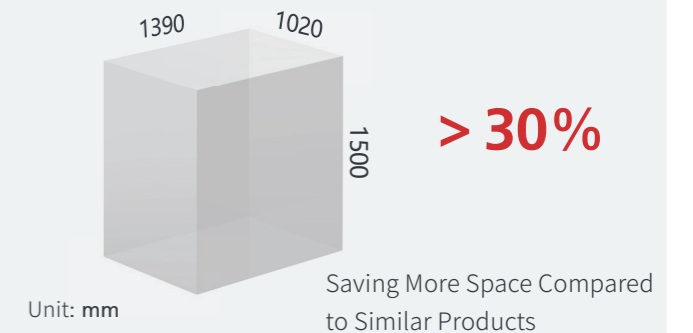
※ Test results under specified conditions of our company.

- Insert Anomaly Detection (Standard)
- Insert Pressure Detection (Optional)
- Component Height Detection (Optional)



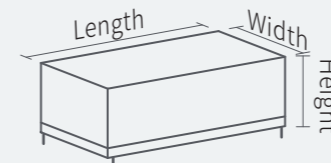
SmartAI SIX Gantry Head
Integrated Light Source | Servo-driven | 6 Working Heads

Compact Design
Maximizes Space Utilization



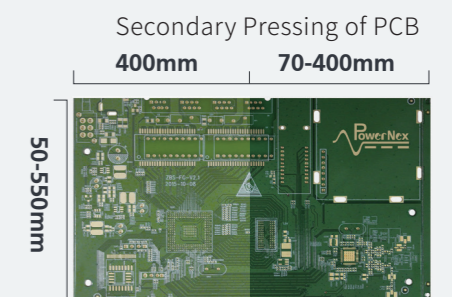
Material Specification

Length	Height
2-30mm	2-30mm
Width	Weight
1-20mm	300g Max



PCB Specification

Thickness
1-3mm
Weight
5kg Max



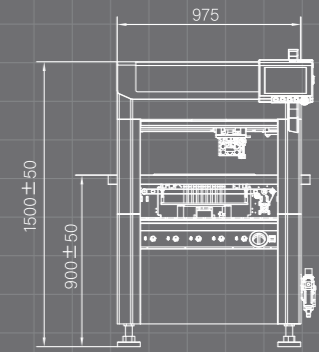
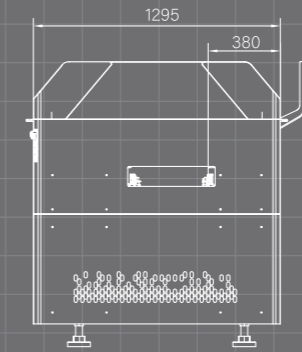
Technical Specification

High-speed Irregular Shape Insertion Machine				
Model	680	1200	1600	1800
PCB Size	410*400mm	300*350mm	410*450mm	410*400mm
	800*400mm			
PCB Thickness	0.8-5mm			
PCB Weight	Max.6kg			
Clamping Edge Width	3mm/5mm			
Plugin Performance				
Insertion Speed	5300cph	1800cph	2000cph	1600cph
Insertion Cycle Time	0.68 sec/part	2 sec/part	1.8 sec/part	2.2 sec/part
Repeat Positioning Accuracy	±0.02mm			
Characteristics of Workhead				
Picking Method	Gripping/Pickup			
Number of Working Heads	6	4/6	4	4/6
Component Dimensions	40mm	35/50mm (Customized)		
Component Height	35mm	40/50mm (Customized)		
Component Weight	Max.300g	Max.500g		
Insertion Direction	0-360°			
Insertion Angle	Plane			Free Angle
PCB Conveyor System				
Conveying Structure	Three-stage			
Conveying Method	Belt/Chain			
Conveying Mode	Synchronous/Asynchronous			
Conveying Speed	Max.800mm/s			
Conveying Direction	L→R or R→L			
Width Adjustment	Automatic Width Adjustment			
Fixed Edge Position	Front End			
Component Clearance Height	Up 45 / Down 20			
Material Feeders				
Vertical Tape	20	20	20	20
Horizontal Tape	16	16	16	16
Tube Feeding	16	16	16	16
Tray Feeding	4	4	4	4
Vibratory Bowl Feeding	16	16	16	16
Machine Information				
Operating Voltage	220VAC ±10%		220VAC ±11%	
Power Rate	1.8KVA	1.8KVA	1.8KVA	1.8KVA
Operating Pressure	0.5±0.05Mpa 50L/min		0.5±0.06Mpa 50L/min	
Machine Port	SMEMA (European-style 14-pin)			
Machine Dimensions	975*1295*1500mm	1211*1111*1800mm	1211*1210*1800mm	1146*1011*1800mm
Machine Weight	1000kg	950kg	1050kg	950kg
Protections				
Certifications	ISO9001、CE			
Safety Door Design	Safety Door Switch (Stop when door opens), Safety Light Curtain			
Pressure Failure Alarm	Electronic Pressure Switch Protection			

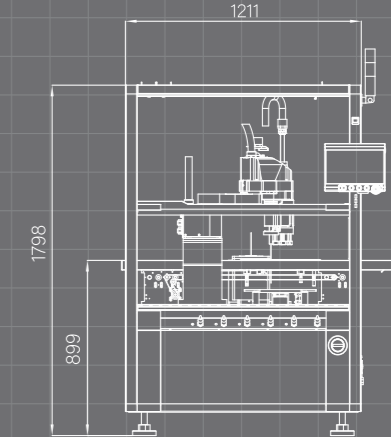
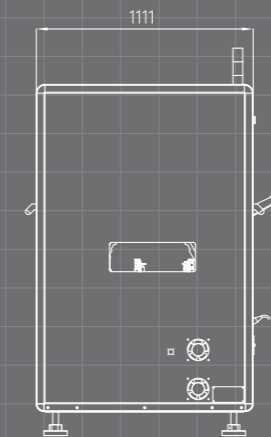
Dimensions

Unit: mm

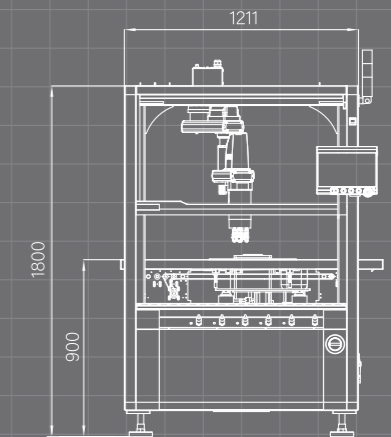
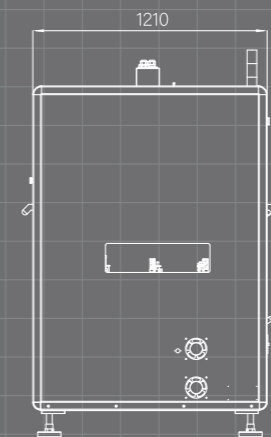
Superfast 680
Left View/Front View



Robotics 1200
Left View/Front View



Robotics 1600
Left View/Front View



Robotics 1800
Left View/Front View

