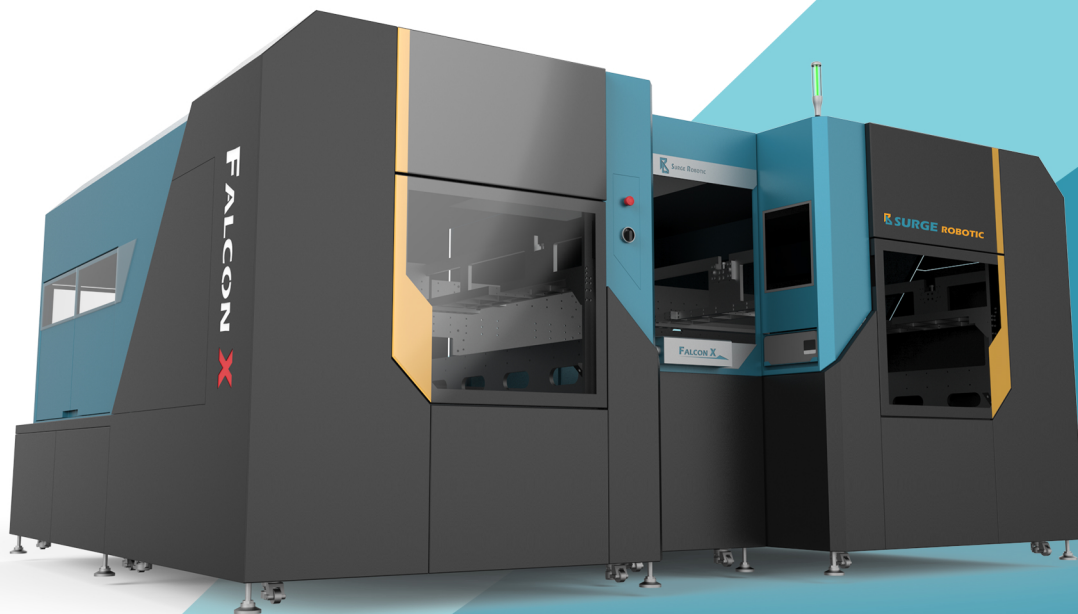


FALCON




**WORLD FASTEST AND SMARTEST
PINLESS REGISTRATION MACHINE**



**SURGE
ROBOTIC**

ABOUT US



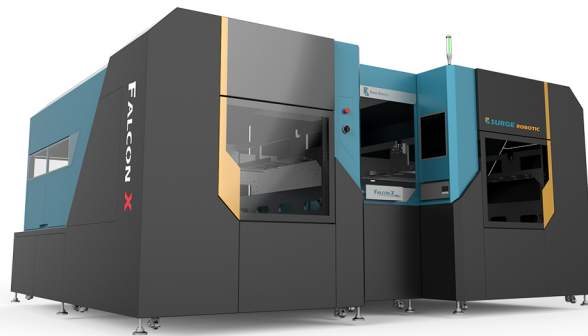


Established by a young and innovative CEO who has stepped into the Print Circuit Board(PCB) industry since 2015, SURGE ROBOTIC has been formed with the mission to create the future of PCB lamination technology.

With 2 years of hardwork, the Company is proud to present the Falcon series, a PCB Pinless Registration Machine that provide four corner optical alignment layup procedure with an ultra production speed. The Falcon series will be about to maintain 90% of the production capacity of the traditional mass lamination process while providing layer to layer registration accuracy of $\pm 15\mu\text{m}$.



FALCON X

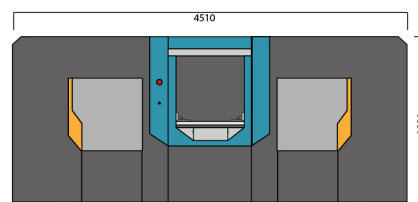
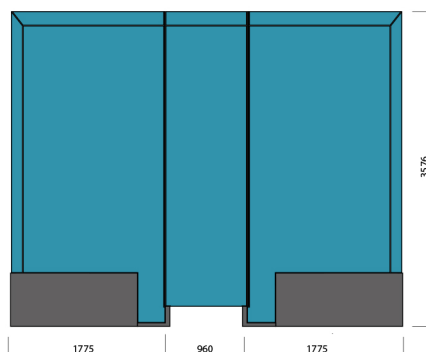


Falcon X is the flag ship model of the Falcon series. It provide extreme production capacity. A very unique design with double system machine equipped with a special loading mechanism in middle allows it to load inner layers to the left and the right side system. This innovative design allows the machine to process two separate stacks of PCB at the same time.

- Double System Design, allows the machine to process panels on the left and right side at the same time.
- Ultra fast layup speed: 10 seconds per inner layer
- Upper/Lower Shuttle Design provides extreme efficiency
- 8 x High-res GigaE industrial camera(4 each on left and right system)
- Size adjustment fully automated
- Integrated Unloader, can unload panels onto a trolley or conveyor line.
- PC controlled system with Capacitive touchscreen

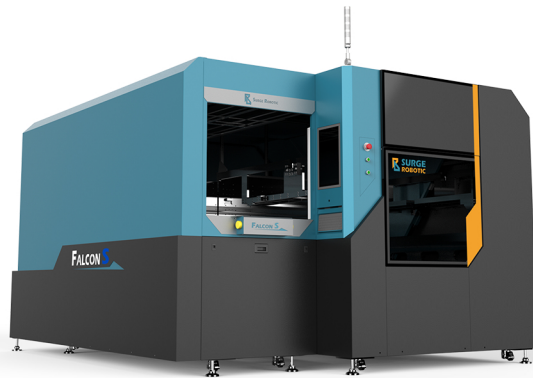
Specification:

Min. Panel Size	14"x14" (356mm x 356mm)
Max. Panel Size	26"x30" (660 x 762)
Alignment Target	Solid Round pad 0.6mm - 1.5mm
Welding Coupon	Solid Rectangular pad 8mm x 20mm or 6mm x 25mm
Max. Thickness	8mm
Alignment Time	10 seconds per layer
Alignment Accuracy	±15µm
Alignment System	8 x Gige High Resolution Industrial Camera (4 each on the left side and right side machine.) 4 edge target alignment with scaling and rotational error measurement
light source	LED Red light Ring
Welding Temperature	up to 300°C
Welding Method	8 x Induction Welding Modules (4 each on the left and right side), each weld modules with two welding spot.
Prepreg	any types of heat process Prepreg
Air Pressure	7 bar
Power Supply	3 phase 220V 30A





FALCON S

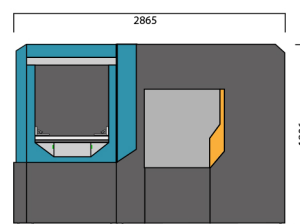
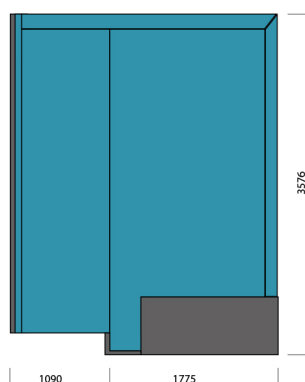


Falcon S is the economic model of the Falcon series. With a double shuttle design, it is able to provide an high accuracy layer to layer registration while maintaining good productivity and an economy pricing.

- Fast layup speed: 20 seconds per layer
- Upper/Lower Shuttle Design provides extreme efficiency
- 4 x High-res GigaE industrial camera
- Size adjustment fully automatized
- Integrated Unloader, can unload panels onto a trolley or conveyor line.
- PC controlled system with capacitive touchscreen

Specification:

Min. Panel Size	14"x14" (356mm x 356mm)
Max. Panel Size	26"x30" (660 x 762)
Alignment Target	Solid Round pad 0.6mm - 1.5mm
Welding Coupon	Solid Rectangular pad 8mm x 20mm or 6mm x 25mm
Max. Thickness	8mm
Alignment Time	20秒
Alignment Accuracy	±15μm
Alignment System	4 x Gige High Resolution Industrial Camera four corner target alignment with scaling and rotational error measurement
light source	LED Red light Ring
Welding Temperature	up to 300°C
Welding Method	4 x Induction Welding Modules each weld modules with two welding spot.
Prepreg	any types of heat process Prepreg
Air Pressure	7 bar
Power Supply	3 phase 220V 30A





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