

Model SL Stream Jet series

Model SL Stream Jet series is an ultra-high precision dispensing robot. The reasons which make SL series so special are attributed to 100% self-developed core technologies by SSI for real 5 axis motion control software, special vision algorithms and ± 1 μm repeatability accuracy hardware design capabilities. To meet the challenge of complicated manufacturing process, Z axis is designed to hold as high as 15kg load for CCD camera/ different lighting devices/jet valve/laser height sensor/Z axis rotation mechanism/ fluid reservoir/ heating device and UV curing light. SL series is still capable to run at 1G acceleration and the speed of 1500 mm/sec on XY axis with the accuracy of $\pm 2\text{--}3$ μm even under critical dispensing applications.



SL series not only has the best hardware specifications but also the most advanced and sophisticated motion control and vision software to meet critical process needs such as 3 D continuous surface height detection, fiducial on fly, versatile image recognition methods and algorithms for critical alignment and inspection, panoramic image for remote teaching, dispensing weight auto calibration, DXF file download and smart editing as well as many other features developed for critical dispensing environments and conditions.

SL series also supports post glue inspection after dispensing for any kind of glue and substrate background to eliminate the cost from defective dispensing as a result of customized algorithms and software modification for individual process. SSI unique glue inspection capability is completely different from competitors approach using available standard vision solution in the market, which often ends with high percentage of false inspection and creates defects. SL series customized vision inspection capability can assure 98-99 % detection rate after dispensing process and increases overall yield.

With all above hardware, software and vision capabilities, SL series is the best choice for applications for semiconductor packaging such as wafer level underfill, EMI shielding, wafer defective chip inspection as well as applications which need using most sophisticated SSI half-touch Deposition Jet for micro dots or line width less than 100 μm .

To meet in-line production requirement, SL series also provides loader and unloader system as an option for conveyor with tray, cassette, magazine, wafer cassette and FOUP.

Please Call **+886 2 27851908** at SSI for your critical dispensing applications.

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Specifications:

Robot Type:		High Speed Precision Dispensing Sys.	
X/Y Acceleration :	X:1G / Y: 0.5G	Weight :	~2000kg
X/Y Velocity :	500mm/sec	Power :	AC 220V, 30A
X/Y/Z Repeatability :	±3µm	Standard : <ul style="list-style-type: none"> • CCD for Stream Vision with auto-position Calibration (Random Mark, Corner) • Vision on the Fly • Jet-on Fly (JOF) function • Motion Mode • Tip Auto Calibration • Laser height sensor for 3D alignment • Clean station • Closed loop weight calibration • Multi dispensing parameter setting • Heat stage(~100C) 	
X-Y-Z Max Travel : <ul style="list-style-type: none"> • 460mm*580mm*120mm 			
Vision Software : <ul style="list-style-type: none"> • Auto-position Calibration • Motion Mode • Vision teach (include Mirror and Rotate) • Multi-board alignment • Auto dispensing route optimization • Continuous route 3D calibration • CAD import • Active manual alignment after auto vision alignment 			
Z-Load :	15kg		
Available Dispenser Device : <ul style="list-style-type: none"> • Jet Valve <ul style="list-style-type: none"> - 1200Hz / 50-200,000cps 99% Accuracy • Hot Melt Jet Valve <ul style="list-style-type: none"> - 500Hz / 99% Accuracy • Progressive cavity pump (Mono Pump) • < 100µm R-Jet 		Option : <ul style="list-style-type: none"> • Customized vision alignment software and algorithm • Post dispense inspection • Multitrack • Other customized function is available • Pre/Post heat stage • SSI Dispensing 4.0 	
Dispensing Area : <ul style="list-style-type: none"> • 340mm(X)*500mm(Y)*100mm(Z) 		Loader/Unloader : <ul style="list-style-type: none"> • tray • cassette • magazine • wafer cassette • FOUP 	
Dimensions (Without Monitor) : <ul style="list-style-type: none"> • ~2000mm(W)*2000mm(L)*2000mm(H) 			