

## Model XL Stream Jet series

Model XL Stream Jet series is an extremely high precision and high speed dispensing robot. The reasons which make XL series so special are attributed to 100% self-developed core technologies by SSI for real 5 axis motion control software, special vision algorithms and  $\pm 1$  um 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. XL series is still capable to run at 1G acceleration and the speed of 1500 mm/sec on XY axis with the accuracy of  $\pm 3\sim 5$  um even under critical dispensing applications.



XL 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 3D 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.

XL 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. XL 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, XL series is the best choice for any application for semiconductor packaging such as wafer level underfill, EMI shielding , wafer defective chip inspection and marking & wafer edge PI coating, high speed solder paste jetting, PCB crowded chip components precision encapsulation, mini/micro led high speed and precision packaging, borderless display glass edge coating , 3D profile dispensing , camera module precision dispensing, OLED polarizer and glass gap sealing, flexible display sealing, inkjet, small hole inner wall dispensing, PUR hot melt dispensing, 10:1 2k mixing and < 400um narrow line width dispensing, and smart phone and NB metal case boning dispensing.

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 any critical dispensing application.

# Model XL Stream Jet series

## Specifications:

Robot Type:	High Speed Precision Dispensing Sys.		
<b>X/Y Acceleration :</b>	1~0.75G	<b>Weight :</b>	~2000kg
<b>X/Y Velocity :</b>	1500mm/sec	<b>Power :</b>	AC 220V, 30A
<b>X/Y/Z Repeatability :</b>	±3~5µm	<b>Standard :</b> <ul style="list-style-type: none"> <li>• CCD for Stream Vision with auto-position Calibration (Random Mark, Corner)</li> <li>• Vision on the Fly</li> <li>• Jet-on Fly (JOF) function</li> <li>• Motion Mode</li> <li>• Tip Auto Calibration</li> <li>• Laser height sensor for 3D alignment</li> <li>• Clean station</li> <li>• Closed loop weight calibration</li> <li>• Multi dispensing parameter setting</li> <li>• Heat stage(~100C)</li> </ul>	
<b>X-Y-Z Max Travel :</b> • 460mm*510mm*100mm			
<b>Vision Software :</b> <ul style="list-style-type: none"> <li>• Auto-position Calibration</li> <li>• Motion Mode</li> <li>• Vision teach (include Mirror and Rotate)</li> <li>• Multi-board alignment</li> <li>• Auto dispensing route optimization</li> <li>• Continuous route 3D calibration</li> <li>• CAD import</li> <li>• Active manual alignment after auto vision alignment</li> </ul>			
<b>Z-Load :</b>	15kg		
<b>Available Dispenser Device :</b> <ul style="list-style-type: none"> <li>• Jet Valve <ul style="list-style-type: none"> <li>- 1200Hz / 50-200,000cps 99% Accuracy</li> </ul> </li> <li>• Hot Melt Jet Valve <ul style="list-style-type: none"> <li>- 500Hz / 99% Accuracy</li> </ul> </li> <li>• Progressive cavity pump (Mono Pump)</li> <li>• &lt; 100µm R-Jet</li> </ul>	<b>Option :</b> <ul style="list-style-type: none"> <li>• Customized vision alignment software and algorithm</li> <li>• Post dispense inspection</li> <li>• Multitrack</li> <li>• Other customized function is available</li> <li>• Pre/Post heat stage</li> <li>• SSI Dispensing 4.0</li> <li>• Loader/Unloader</li> </ul>		
<b>Dispensing Area :</b> <ul style="list-style-type: none"> <li>• 340mm(X)*500mm(Y)*100mm(Z)</li> </ul>	<b>Loader/Unloader :</b> <ul style="list-style-type: none"> <li>• tray</li> <li>• cassette</li> <li>• magazine</li> <li>• wafer cassette</li> <li>• FOUP</li> </ul>		
<b>Dimensions (Without Monitor) :</b> <ul style="list-style-type: none"> <li>• ~1300mm(W)*1760mm(L)*1930mm(H)</li> </ul>			