

ON4X500



MICRO ASSEMBLY PRODUCTION CELL

High Precision, Low Volume, Micro Assembly, Dispensing & Prototyping

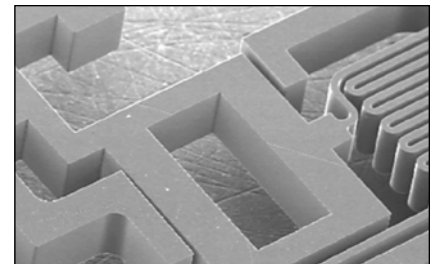


SEMICONDUCTORS
Micro Dispensing, Die Attachment, Wafer Handling

PHOTONICS
Assembly, Dispensing, Alignment, Curing, Inspection

MICRO-MECHANICS
Micro Assembly, Component Packaging, Kitting/Sorting

ELECTRONICS
Assembly, Dispensing, Inspection, Repair



SYSTEM FEATURES/BENEFITS

The Production Cell includes safety covers, doors, PC center module and user interface with stack light.

Cartesian Positioning with Precision Linear Motors & Encoders

Assembly Head with Theta Rotation

Dual Camera Vision System

Up looking camera compares component/die/object mounted on z-axis vacuum nozzle to a model. Down looking camera compares substrate/object on the application plate to a model.

Die Flipper

Precision Force-Controlled Placement

The component/die/object is automatically placed after the two part vision match. Various precision force placement systems are available to provide the minimum (1 gram) or maximum (20 kilograms) force required.

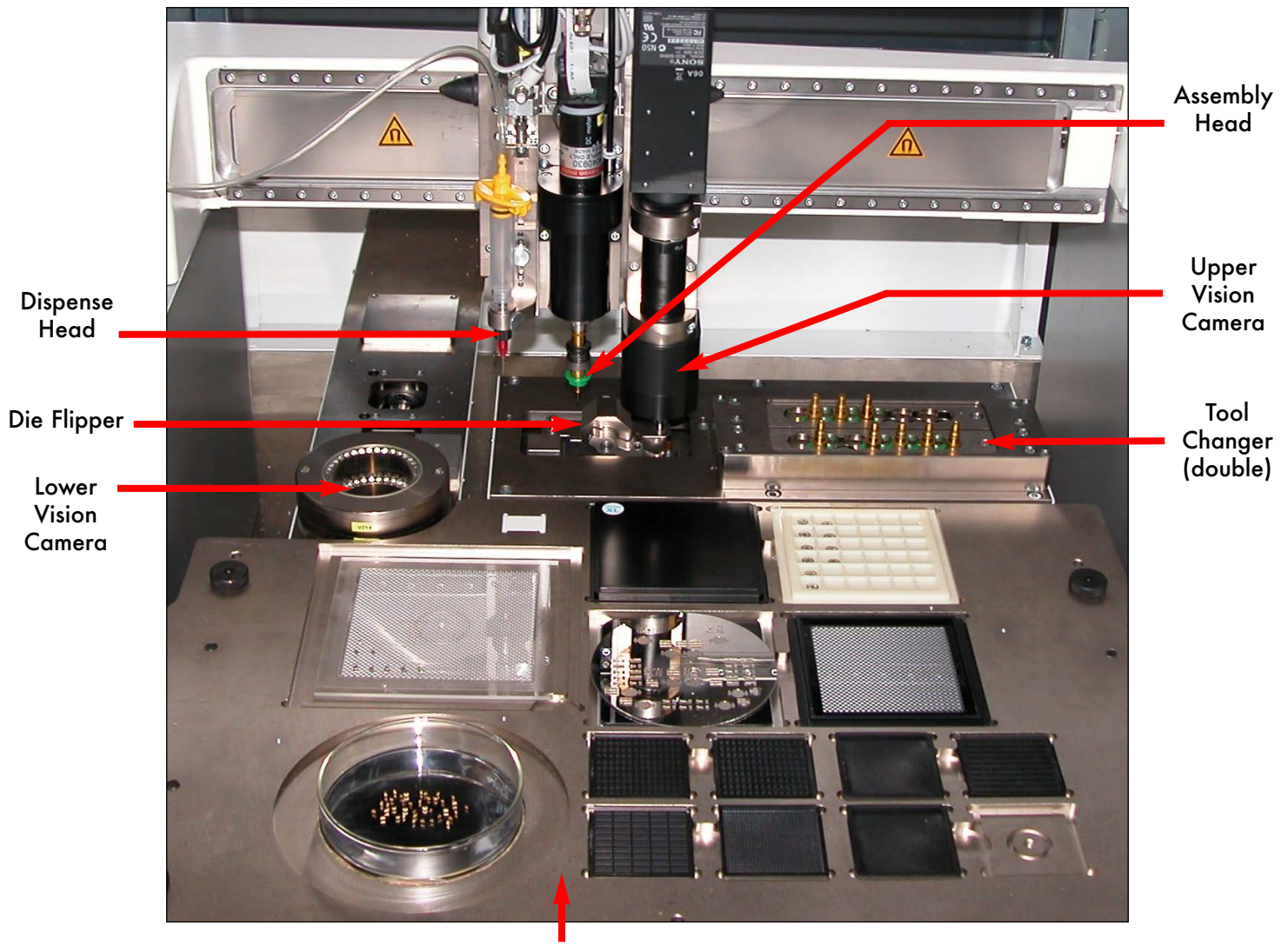
High Performance Integrated Dispensing

A time/pressure dispenser with automatic pressure compensation and independent z-axis can be integrated, providing the capability to dispense epoxy then pick/align/place on a single machine.

Automatic Tool Changer

Provides the capability to store and automatically change up to twelve vacuum nozzles.

Flexible design allows machine to be configured based on application requirements.



Custom Application Plate mounted on Force Sensing Table (not shown)

Technical Data

Dimensions	Width: 1170 mm (46")	Depth: 1170 mm (46")		
	Height (avg): 2403 mm (95") w/out stack light	Weight (avg): 600 kg (1320 lbs.)		
Electrical Power	3 x 208/110 VAC, 60Hz, 3 phase			
* Process Accuracy +/- 3 Sigma	<u>X</u> +/- 0,009mm +/- 0,00035 "	<u>Y</u> +/- 0,009mm +/- 0,00035 "	<u>Z</u> +/- 0,020mm +/- 0,00078 "	<u>Theta</u> +/- 0,020°
	Axes Speed	1,0 ms ⁻¹	0,9 ms ⁻¹	0,18 ms ⁻¹
Safety System	CE certified, UL compatible.			

Specifications are subject to change without previous notice.

* Values are based on glass flip chip placements on glass substrate. Local process accuracies of 0,005 mm can be reached depending on the application.