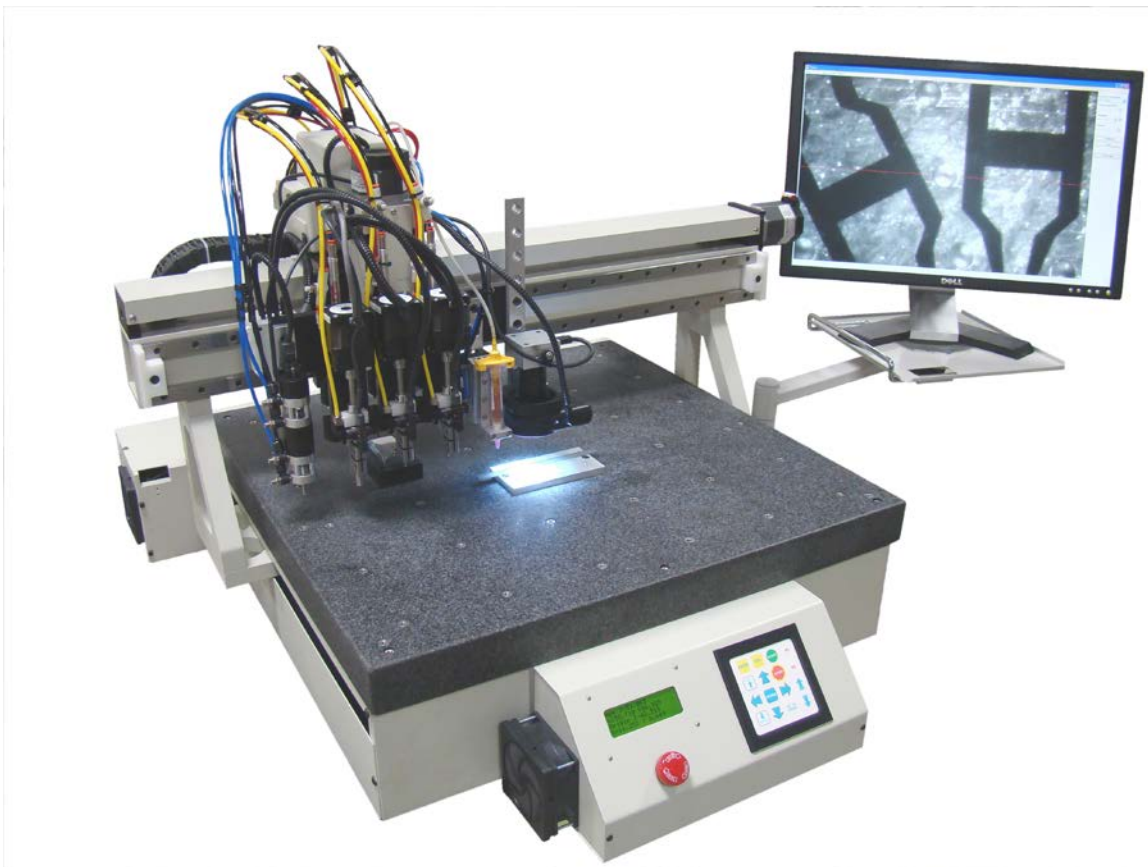


RPX Series

Ultra Precise Dispensing / Assembly Systems



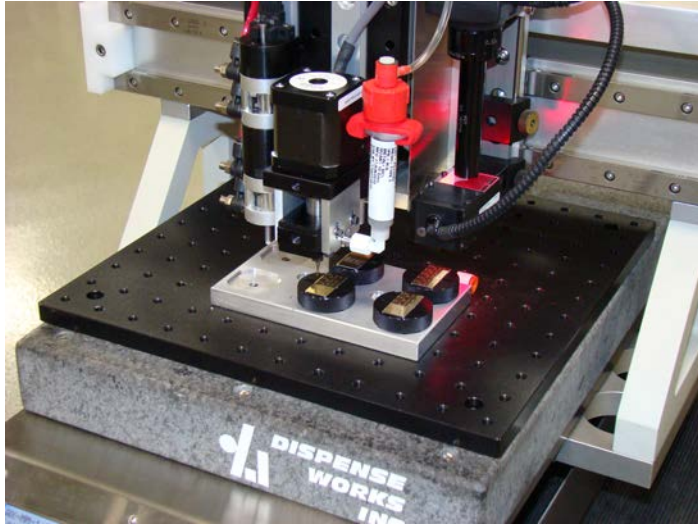
Granite Base

Automated Vision System

Pick & Place



A Smart Solution



Designed for High Precision

The RPX Robot system is optimized for fluid dispensing of virtually any materials using all technologies available today.

Each axis is constructed with our unique precision ground structure for rigidity and machine tool like precision and performance. These systems are ideal for high speed / payload applications, requiring several heads / tools.

A Logical Design

Constructed on a granite base plate provides the necessary flatness and stiffness that results in accuracy and repeatability to 10 micron. Linear digital scales in addition to brushless servo motors are used as dual feedback to attain the highest level of positioning accuracy.

Granite Base system provides precision and stability during all the machine & vision cycles. Special pre-loaded ball slides and leadscrews drive each axis.

Latest Embedded Technology

Network LAN Connectivity

Modular Construction

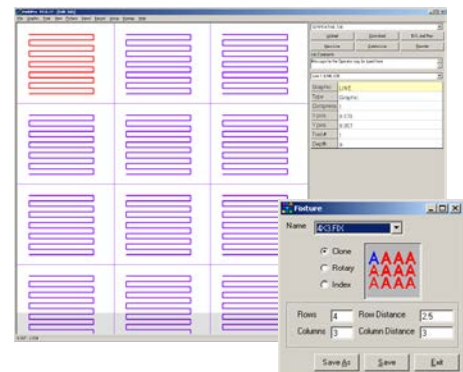
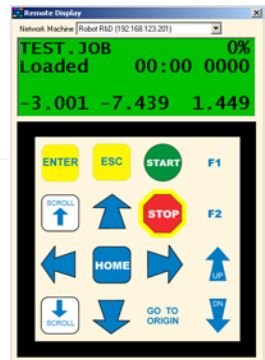
The system includes an embedded (dual memory) processor and CF memory card for true multi-tasking & real time performance. The machine is connectable to your network (LAN) or RS-232. Hundreds of files may be stored on the machine for quick changeover. Built-in step & repeat "Pallet" files simplify setups. Bar code scanner input will allow selecting jobs from a label or work order.

A True File Based Solution

The obvious advantages of a file based system: "Your machine will be better tomorrow than it is today" The ability to upgrade the machine's software by downloading a single file, ensures that your investment will be as prudent as it is productive.

Built-In Digital Valve Controller

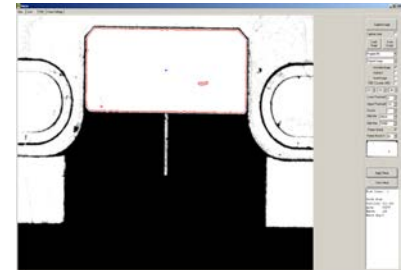
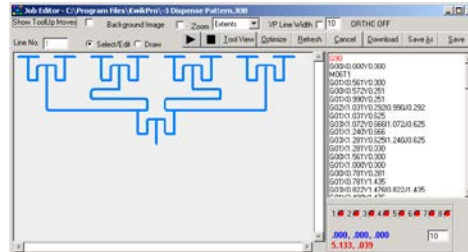
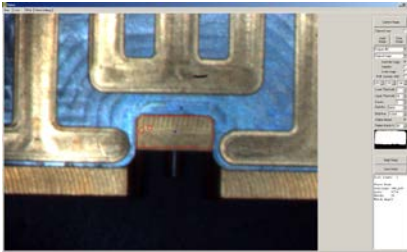
No external valve/syringe controller is required. This means much faster response times and control because all motion patterns and valves are controlled in "real time" from the main program. Furthermore, editing or modifying a program is all done in one file.



Pre-Programmed Functions

Simple & Powerful Graphical Programming

All software and firmware including the vision system is written in-house for seamless integration and real time control of the process. A rich list of features are included for pattern recognition, blob analysis, fiducial / edge registration, etc. The RPX assembly system is a world class solution that outperforms many systems costing more money.



Set Hi Res Color Camera

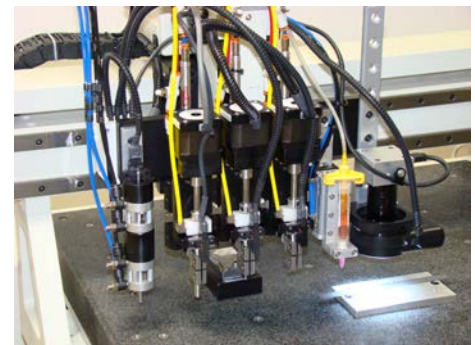
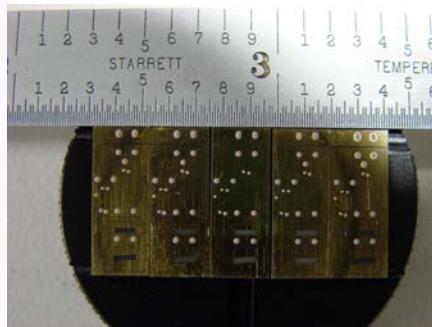
Import Motion Path File

Click on Blob

Pre-programmed algorithms provides simple click control of targets and patterns. The file based control system allows storing hundreds of jobs on the internal CF memory card. Light intensity for camera is software controlled.

Off the Shelf Options Streamline Your Production

Hundreds of standard options are available



Precise Granite Base calibrated for the electronics industry

185 micron (0.0075") dia solder dots via custom carbide auger valve

Four pick & place heads with theta rotation, force control and vision

Track Your Production Data

Production information is stored after (& during) each cycle. This includes a date & time stamp for each cycle.

The History file may be accessed from the Windows Suite and then printed, copied into a report or saved as a spreadsheet file. Other "flags" such as a pause or any interruptions during production are tracked as well.

Production History File

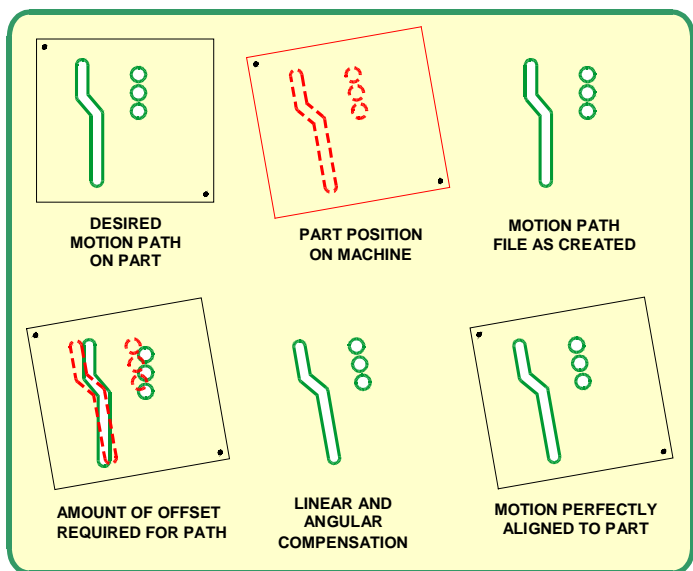
Date	Time	Job	Count	Run Time
01/13/04	00:17	THIS	#0004	00:06
01/13/04	00:15	0	#0005	00:10
01/13/04	00:14	THIS	#0001	00:10
01/07/04	22:54	TEXTJOB	#0001	00:16
01/07/04	22:54	LINVATEC	#0001	00:19
01/06/04	23:34	THIS	#0148	00:17
01/06/04	20:48	0	#0335	00:11
01/06/04	19:47	LIN	#0002	00:04
01/06/04	19:46	KEYBOARD	#0031	00:26
01/06/04	19:27	TEXTJOB	#0002	00:05
01/06/04	19:26	KEYBOARD	#0001	01:03
01/06/04	18:51	LIN	#0000	00:00
01/06/04	18:50	KEYBOARD	#0003	00:36
01/06/04	18:48	RG	#0001	00:05
01/06/04	18:47	010504-1	#0014	00:00
01/06/04	01:14	KEYBOARD	#0001	00:37



Electronics Tooling with Vision and Pick & Place



Vision System Overview



- FIDUCIAL
- RING
- HOLE
- TARGET
- CROSSHAIR
- CORNER
- BLOB
- RECTANGLE
- POINT
- GEOMETRY



All systems are designed & manufactured in our clean, state of the art facility on modern CNC equipment to the industry's most stringent quality control. All software (& machine firmware) is written by us as well.

Over 25,000 sq ft is dedicated to research / development & high tech assembly. The systems feature time proven designs with pre-engineered stations requiring minimal "custom" tooling for rapid deployment.