



Shown With Optional Work/Storage Table

**T**he CHAMPION 3700 is a stand-alone automated fluid dispensing system for application of adhesives, solder pastes, sealants, lubricants, and other similar materials. The high-performance servo driven motion system makes the Champion 3700 the ideal choice in a wide range of manufacturing processes in many industries.

Fast, accurate, and flexible, the system can dispense from watery to high viscosity materials using the most comprehensive choice of pumps and valves available in the market. This includes Creative Automation's patented True Volume™ positive displacement piston pump.

With many advanced features, the system delivers exceptional performance, including high speed not typically found in a bench-top system.

### Features

**Powerful, easy-to-use proprietary software.** The color graphics user interface allows intuitive programming and control. Keyboard or trackball operated.

# CHAMPION 3700

## Digital Dispensing Benchtop System

### 30,000 dph High-Throughput Servo Motor Drive

**Large work area.** The 18" by 18" work area easily accommodates large parts or pallets. Precision rail and tooling ensure their precise positioning.

**Versatility.** From dots to lines, underfill, and encapsulation, Digital Dispensing and the CHAMPION 3700 deliver the accuracy and repeatability demanded by today's exacting applications.

### Options

**Camera and vision.** A closed circuit camera with picture-in-picture display on the monitor, for easy programming and inspection. The Automatic Vision Correction System establishes the X, Y, and Ø orientation of the part and compensates for stretch, skew and misalignment.

**Height Sensing.** Both contact probe and non-contact laser are available for height sensing and height mapping.

**Heating.** Substrate, needle and material heating.

**Work/Storage Table.** A custom designed work table provides also ample storage space for parts and materials.

### Standard Features

- 3-axis brushless servo motor drive
- Precision anti-backlash ball screw drive on all axis
- Powerful, easy-to-use Windows-style software
- Rugged construction and quiet operation
- Small footprint
- CE certification
- Full 1-year warranty

### Optional Features

- Vision system with camera image on computer monitor
- Auto vision alignment and dot verification
- Auto Height Mapping
- CAD download with path optimization
- True Volume™ pump dots to 1 nanoliter (0.001 µl)
- Large choice of pumps and valves
- Independently controlled multiple dispense heads
- Contact and non-contact (Laser) height sensor
- Substrate, needle and Material Heaters
- Work/Storage Table

See Reverse Side For Specifications and Options

## Creative Automation Company

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# CHAMPION 3700

## Digital Dispensing Benchtop System

### System Specifications

#### Performance

Placement Rate:	Up to 30,000 dots/hour
Travel Range:	X-axis 18" (45.7 cm) Y-axis 18" (45.7 cm) Z-axis 1.5" (3.8 cm)
Part/pallet Size:	Up to 18" x 18" (45.7 x 45.7 cm)
Resolution:	0.001" (25 µm) All Axes
Repeatability:	± 0.001" (± 25 µm) All Axes
Positioning Accuracy:	± 0.002" (± 50 µm)
Linear Speed:	15"/sec. (38 cm/s)
Drive:	3-axis brushless servo motor
Underboard Clearance:	Standard: 3/4" (1.9 cm) Optional: 2"-6" (5.1-15.2 cm)
Safety:	CE certified

#### Operational

Operation Mode:	Automatic with manual part loading/unloading
Control:	Industry Standard Computer with SuperVGA Color Monitor
Programming:	PowerPath™ Software with <ul style="list-style-type: none"><li>- Teach Mode</li><li>- Off-line programming</li><li>- CAD Download</li><li>- Unlimited Subroutine Nesting</li><li>- Direct Subroutine Access</li><li>- 5-level Password Protection</li><li>- Operator and Supervisory Screen</li><li>- Global and Local Pattern Libraries</li><li>- Execute-as-you-Edit Mode</li></ul>
User Interface:	Windows-style with Keyboard and Trackball Operation
Data/Program:	Hard Disk / 3.5" Diskette Drive
Power:	120 VAC, 60 Hz (230 VAC, 50 Hz Optional) 300 Watts
Pneumatic:	75 psi, 1 cfm (5 bar, 28 l/min)

#### Physical (with optional work/storage table)

Dimensions:	60"W x 61"D x 60"H (152 cm x 155 cm x 152 cm)
Weight:	730 lb. (331 kg) (Dimensions with optional work/storage table)

Specifications subject to change without notice

### Options

#### Configuration

Independently Controlled Multiple Dispense Heads  
Substrate Heating  
Needle, and Material Heaters  
Complete Selection of Standard and Special Tips  
Automatic Needle Calibrator  
Syringe Low Level Sensor

#### Automatic Alignment

Fiducial Alignment  
Height Mapping  
Skew Correction  
Stretch Correction  
High Magnification Vision System  
Dot Verification  
Non-contact High-speed Laser Height Sensor  
Contact 1 gram Mechanical Height Sensor

#### Pumps and Valves

Piston Positive Displacement Pump  
Low Viscosity Positive Displacement Pump  
Diaphragm Valve  
Very High Viscosity Spool Valve  
Rotary Screw Valve  
Syringe Dispenser

### Innovative Solutions Since 1968

For over 30 years, Creative Automation Company has provided customers with automated manufacturing solutions. The company has set the industry standard in dispensing with over 19 patents, developing innovative concepts based on proven, leading edge technologies.

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