



**WHERE  
PRECISION  
DRIVES  
PRODUCTION**



## **PVA650 SELECTIVE COATING / DISPENSING SYSTEM**

The PVA650 is a flexible robotic platform that is ideal for selective coating, potting, bead, and meter-mix dispensing applications. The PVA650 features a robust overhead three-axis motion platform suitable for inline or batch operations.

The PVA650 has many integrated features including:

- ▲ Robotic system accuracy of 25 microns
- ▲ Patented servo-controlled optional four-axis motion featuring valve tilt and rotate
- ▲ Closed loop process control throughout gantry system
- ▲ Micron level encoder resolution for unparalleled accuracy
- ▲ Multiple dispensing applications or materials in one cell
- ▲ Onboard PC for unlimited program storage
- ▲ Exclusive PathMaster® programming environment
- ▲ PVA's award winning global service network

For more information, please contact PVA at [info@pva.net](mailto:info@pva.net) or 1-518-371-2684.

### **PVA650 SPECIFICATIONS**

#### **Gantry System Design**

Closed loop brushless DC servo motors with optical encoders and ball screw slides on all axes

#### **Work Area**

1 Valve:  
459 mm x 459 mm x 101 mm  
(18.07" x 18.07" x 4.0")

#### **XYZ Repeatability**

25 microns (0.001")

#### **Resolution**

5 microns (0.0002")

#### **Maximum Acceleration**

1g

#### **Footprint**

1219 mm x 940 mm x 1607 mm  
(48" x 37" x 63.25")

#### **Programming Software**

PathMaster® software with offline image import and programming capability



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# PVA650

The PVA650 is ideal for selective conformal coating and dispensing applications that require a high level of accuracy and repeatability in moderate to high volume manufacturing environments. The PVA650 is a closed-loop robotic platform featuring optical encoder feedback on all axes.

**Power:** 120V, 220V, 50-60 Hz  
**Air Supply:** 80 psi dry, unlubricated air

**Board Handling:**  
 Conveyor Type: Flat belt or chain  
 Minimum Conveyor Width: 50 mm (1.97")  
 Board Clearance: 70 mm (2.76")  
 Edge Clearance: 4.7 mm (0.185")  
 Transport Height: 940 mm – 965 mm (37" – 38")

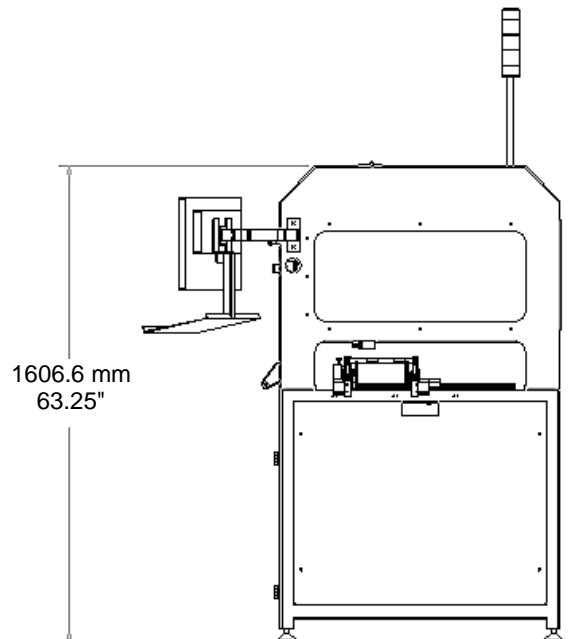
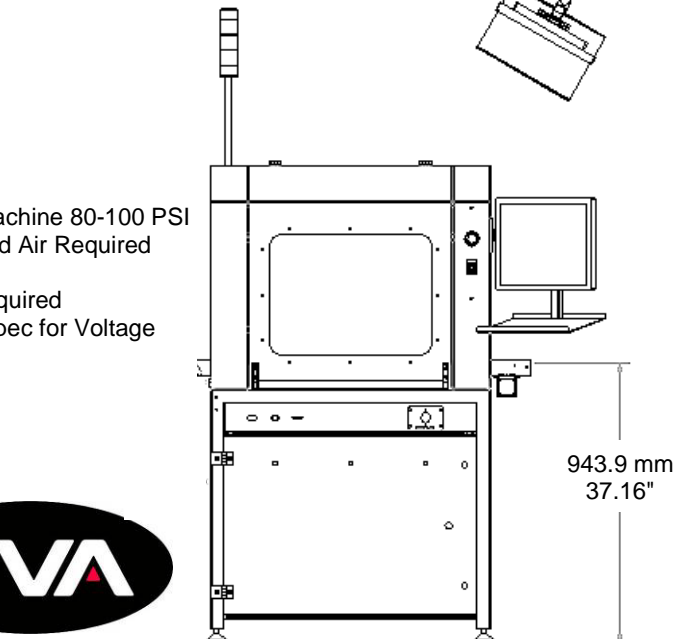
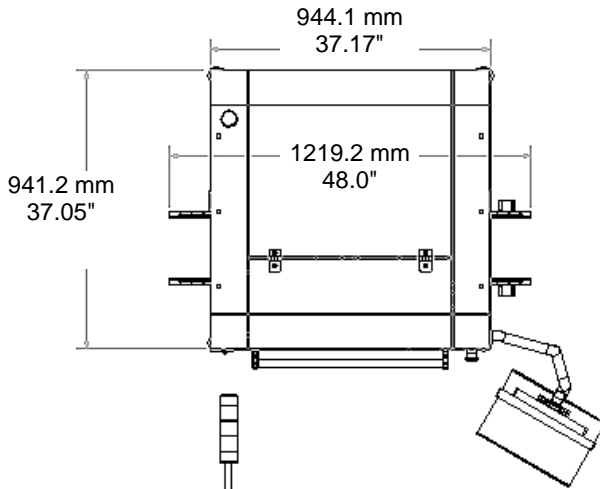
**XYZ Specifications**  
 Gantry System: Brushless DC servo motors  
 Precision ball screw slides  
 XYZ Repeatability: 25 microns (0.001")  
 Maximum Speed (XYZ): 700 mm/sec (27.6"/sec)  
 Maximum Acceleration: 1g  
 Resolution: 5 microns (0.0002")  
 Payload Capacity: 11.36 kg (25 lbs.)

Communication Protocol: SMEMA  
 Conveyor Options: Lift and locate, through hole pin, under board support  
 Conveyor Speed: Up to 24.4m/min (80 ft/min)  
 Process Flow: Programmable right to left or left to right, bidirectional  
 Weight Limit: 5 pounds (belt)  
 15 pounds (chain)

**Standard Features:**  
 PathMaster® Windows-based software  
 FastPath™ offline image programming capability  
 Onboard PC with flat screen monitor  
 Remote teach pendant with trackball  
 USB communication port  
 Closed-loop low level exhaust notification (spray systems)

**Dispensing Methods:**  
 FCS300-ES: Focused, round pattern spray valve  
 FCS300: Fan / oval pattern spray valve  
 FC100-CF: Non-atomized film coater  
 FC100-MC: Needle valve  
 FCM100: Micro dispense valve  
 Material Feed Options: Cartridge feed (6 – 20 oz.)  
 Pressure vessel  
 Drums, totes

**Optional Features:**  
 Dual head tooling  
 Closed-loop material flow monitoring  
 Inline material metering  
 Bar code program selection  
 Conveyor auto width adjust  
 Low level material sensor  
 Valve and / or material heating  
 Programming Camera  
 Active vision with XY correction



Back Side of Machine 80-100 PSI  
 Dry Compressed Air Required

Power Drop Required  
 See Machine Spec for Voltage



www.pva.net