# J-KEM Scientific, Inc. Instruments for Science from Scientists





Fills Cartridges, PODS, Darts, Custom containers, & Capsules

For 25 years J-KEM Scientific has been a leading manufacturer of custom robotics for the pharmaceutical industry. Our robotics are used in biotech and chemical R&D, and they're deployed in applications ranging from dispensing active pharmaceutical ingredients to real-time control of safety critical parts in the aerospace industry. Engineered into the PotBot is all of J-KEM's knowledge, experience, and attention to minute detail. Our

Heated transfer line



A key component is J-KEM's patented high viscosity pump. Because the pump is made from 100% stainless steel and designed for high pressure, it works at lower temperatures than other systems, which minimizes thermal degradation.

uncompromised commitment to quality results in the PotBot's flawless performance.



### **J-KEM Scientific's PotBot** is the only robot that dispenses pure oils to cartridges, PODS, or bottles with >99.5% accuracy.

- Fill 3600 cartridges with 98% pure THC in 8 hours. Zero errors in 3600 cartridges.
- Precisely dispenses ±3 mg of the target weight, saving thousands of dollars by eliminating product over-fills.
- No product loss. All product is recovered during automated system cleaning.
- Precise digital heating of the reservoir, pump, and transfer lines maintain flowability of viscose oils with temperature control accuracy of ±0.1C.
- PC control. No air compressor or pressure lines are required, as with lower quality systems. 100% solid state, digital control allows the user to precisely set dispense rate and volume (10mg to 100g), reservoir and line temperatures, and positioning of the dispense tip with accuracies of 0.01mm. Real-time controls allow the user to precisely tune the robot to perform 100% perfect oil delivery every time.
  - Holds four 156 position trays which can be swapped out for continuous operation. Custom racks are made to fit any cartridge diameter, design, or height.

### Made in the USA

#### Why the PotBot works when other dispensers fail.

Lower quality machines add oils to cartridges with the dispense tip placed at the top of the cartridge, rather than positioning the tip all the way to the bottom. When oils are added from the top, air bubbles are trapped as the flowing oil forms a seal with the glass wall, and since bubbles take up volume, this results in the cartridge overflowing.

To prevent this, the PotBot drives a motor controlled tip to the bottom of the cartridge, it then starts dispensing oil and simultaneously retracts the tip at the exact same rate that the cartridge is filled, making it impossible for a bubble to form.

## **Custom Automation Solutions**

• Analog sensor interfaces • Temperature

• Pressure

• One-of-a-kind instruments Robotics

J-KEM makes custom robotic solutions ranging from a simple 2-axis deck to

sophisticated 6-axis articulating arms. Two qualities distinguish J-KEM from any other automation manufacturer:

• You Own the Solution - J-KEM is the only robot manufacturer that releases the original source code with every robot. This provides unprecedented control of your robot by allowing you to modify the software as automation needs change.



< \$7,000

Titan Robot

• Custom Designs - J-KEM makes a unique instrument specifically designed for your application



Eclipse Robot



perfect for 1 to 12 liter short path

J-KEM Scientifi

to Setpoint

Model 250

PC control by

USB.

120Vac,

1800 watts

Two heater



### Vacuum Regulators

4-Axis SCARA

DVR-1000 Precision vacuum regulator with control down to 0.001 torr.



PC controlled Data logging Fully programmable Multi-step vacuum programming

DVR-200 Laboratory vacuum regulator with control down to 0.1 torr.



PC controlled Data logging Fully programmable 100% stainless steel vacuum path



Custom reaction and lab automation

J-KEM Scientific is a group of scientists working for scientists like you. We specialize in unique instruments for lab automation.

### **Custom Instruments**

### **One perfect solution**

### Custom Software