



▶ INDEPENDENT PUMP DRIVE (IPD) **SYSTEM**

Dispense materials in precise shot sizes and integrate easily with automated and robotic applications.

DESCRIPTION

The Independent Pump Drive System consists of a PLC controller, main hydraulic unit, and MVP's precision fluid sections. When paired together, the system will precisely mix/meter up to six components in a range of rates.



SYSTEM FEATURES

- Up to 6 fluid sections can be configured per unit
- Output ranges from 50-22,500cc (.015-6.0 gpm) per fluid section
- Fluid pressures from 100-2700 psi
- 10-100:1 ratio range
- 1% accuracy**
- +/-5cc/min delivery accuracy**
- Guided, direct driven fluid sections for low maintenance/ high reliability
- High accuracy encoders for precision control of ratios/ outputs

All parameters dependent on material characteristics and fluid section configuration

▶ HIGHLY CUSTOMIZABLE

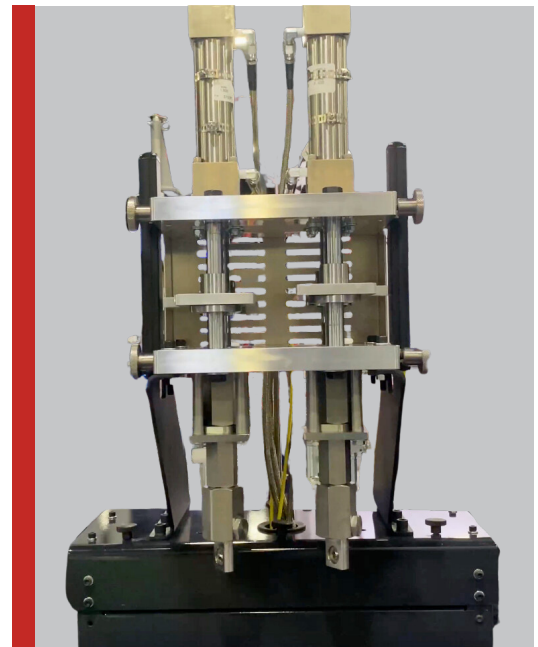
Independently driven fluid sections allow for custom ratios, adjustments on the fly, recipe-based programs, or external source controls such as robotics and other automated equipment

▶ OPERATION IS SIMPLE

Simply enter your desired ratios of each material and set a rate. The system will then start the operation and precisely meter each component

▶ UNMATCHED PRECISION

The System will take multiple ratios and meter them very precisely at +/- 1%



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OPTIONS

- Flow meters
- Pressure transducers
- Thermocouples
- Heated hoses
- Transfer/feed pumps for high viscosity materials
- Solvent/Air purge system
- Custom mix/dispense head
- External communication with external devices

Ex: Data exchange with robotic arm for start/stop, alarms and on the fly ratio adjustment



MAIN HYDRAULIC POWER SOURCE

- Nullifies need for large volume of air to operate. Great for mobile operations or where compressed air is at a premium.
- Hydraulic oil cooler ensures unit can run for extended periods of time and/or higher pressures without overheating.
- Precision analog controllers ensuring precise hydraulic flow for operation and control.



PLC CONTROL AND MONITORING

- Each fluid section can be controlled to a certain rate based off output ratios needed.
- Real time calculations ensure each fluid section is performing to calibrated values-based on user input.
- Large 10" HMI for easy viewing.
- Single page display monitors all aspects of injection (rate, ratio, temperature, and pressure).
- High-capacity data log/recipe storage.
- Recipes can be programmed offline via USB or FTP and transferred to any machine.
- Data logs can be retrieved via FTP, email, USB drive or cloud storage. Cloud storage requires customer account on mainstream cloud server. (Azure, AWS, or Ignition are examples).
- Remote control via Wi-Fi with iOS/Android app. Customer to supply iOS/Android device.
- Remote management/troubleshooting from MVP (must have internet connection).

COMPACT UNIT

- Nullifies need for large volume of air to operate. Great for mobile operations or where compressed air is at a premium.
- Pumping unit (2 small pumps) 28" x 30" x 72" tall.

Note: High output fluid/more than 2 sections will require larger pump unit frames.



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