



# Ink Cartridge Filler



## Imagined

Develop a highly automated, universal cartridge filler for the ink industry to fill 4.4 lb and 8 lb cartridges by weight, and with minimal changeover time.

## Engineered Solution

Universally adaptable to process a wide range of cartridge geometries, with toolless changeovers in 10 minutes or less. Fully automated design with built in flexibility to fill by weight and selectively spray cartridges (pre- and post-fill) with antioxidant. Equipped with a high volume, floor standing, cartridge hopper, a plunger accumulator for continuous and uninterrupted processing, and an integrated labeling station.



Cartridge Load Station



Plunger Singulator



Product Cartridges



V-Cylinder Cartridge Locator



Spray Station



Fill Station



## FEATURES

### **Cartridge Bulk Bin Hopper:**

- Inclined, cleated belt conveyor and cartridge singulator mounted within a stainless steel hopper, equipped with polycarbonate front guards.
- **Capacity:**
  - 400+ 4.4 lb cartridges
  - 250+ 8 lb cartridges

### **Five Station Base:**

- **Cartridge Load Station** positively positions cartridges within cleats of the indexing conveyor.
- **Primary Antioxidant Dispense Station** pneumatically driven to spray antioxidant to the interior wall of the cartridge length prior to filling.
- **Gravimetric Servo Driven Fill Station** fills cartridges from the bottom up by weight.
- **Secondary Antioxidant Dispense Station** pneumatically driven to spray antioxidant to the top of the ink surface after filling and prior to plunger insertion.
- **Plunger Insertion Station** pneumatically presses plungers into the filled cartridge while venting the displaced air, and is equipped with a linear transducer to monitor plunger insertion depth.

### **Labeler:**

- 10' long x 3" wide tabletop conveyor with label applicator station.

### **Plunger Accumulator:**

- 10' long x 1.75" wide belt conveyor mounted above and inline to labeler conveyor.
- Integrated with plunger escapement mechanism to singulate and load plungers into plunger track.

## SPECIFICATIONS

### **Controls:**

- Allen-Bradley CompactLogix PLC with Ethernet
- PanelView Plus Compact 1000 Touch Screen HMI
- Digital Net-Weigh Fill Controls
- 230 VAC or 460 VAC, 3 Phase

### **Throughput:**

- 4.4 lb cartridges - 10 per minute
- 8 lb. cartridges - 7 per minute



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