AirFree® Technology

Price and performance (fluid deposit repeatability) are the first consideration when choosing a fluid dispensing system. Fishman AirFree® technology provides unparalleled performance, the lowest deployment cost and the lowest total cost of ownership when compared to other fluid dispensing systems. The result is an excellent return on total investment while generating significant profits over the systems life.

**Total Cost of Ownership**

AirFree® Technology Adds Profits When Replacing Air Driven Systems

Cost of ownership, Air vs. AirFree®, one fluid dispenser

![Graph showing the comparison between Air Dispenser Cost of Ownership and AirFree® Technology Cost of Ownership over 1, 5, and 10 years.](image)
**LDAV-HT Large Dot Any Viscosity**

<table>
<thead>
<tr>
<th>BARREL SIZE</th>
<th>3CC</th>
<th>5CC</th>
<th>10CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. VOL. (CC)</td>
<td>.00086</td>
<td>.00151</td>
<td>.00251</td>
</tr>
<tr>
<td>MAX. VOL. (CC)</td>
<td>3.0</td>
<td>5.0</td>
<td>10.0</td>
</tr>
<tr>
<td>MIN. RATE (CC/SEC)</td>
<td>.022</td>
<td>.038</td>
<td>.063</td>
</tr>
<tr>
<td>MAX. RATE (CC/SEC)</td>
<td>.518</td>
<td>.908</td>
<td>1.504</td>
</tr>
<tr>
<td>MAX. BACKOFF (STEPS)</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

The SmartDispenser® LDAV-HT (3-10cc) comes with 3-10cc Dispense Gun and 3, 5, 10cc Retaining Rings.

<table>
<thead>
<tr>
<th>BARREL SIZE</th>
<th>30CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. VOL. (CC)</td>
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<tr>
<td>MAX. VOL. (CC)</td>
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<tr>
<td>MIN. RATE (CC/SEC)</td>
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<tr>
<td>MAX. RATE (CC/SEC)</td>
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<tr>
<td>MAX. BACKOFF (STEPS)</td>
<td>500</td>
</tr>
<tr>
<td>MAX. DELAY (SEC)</td>
<td>9.99</td>
</tr>
</tbody>
</table>

The SmartDispenser® LDAV-HT (30cc) comes with 30cc Dispense Gun and 30cc Retaining Rings.

**Genius® Dispensing Components deliver advanced dispensing performance**

Fishman’s dispensing system components are designed specifically for industrial use, achieving optimized performance from AirFree® dispensing systems.

- **Barrel Reservoirs** (available in 4 sizes)
  - Thickwall design eliminates flexing
  - Precision molded zero degree taper assures smooth flow
  - Disposable design eliminates need for cleaning PosiLok™ Pistons
  - Enclosed chambers protect workforce from contacting assembly fluid.

- **PosiLok™ Pistons**
  - AirFree® design featuring patented positive lock piston attachment for positive displacement dispensing
  - Precision molded for smooth flow and uniform advance
  - Engineered to allow trapped air to escape while sealing in vapors and fluid Dispensing tips (available in 3 styles)

- **Dispensing Tips** (available in 5 styles)
  - Ergonomic Surlock™ design locks securely to the barrel with a simple twist
  - Multiple sizes and lengths available to satisfy any dispensing application

Fishman Corporation manufactures in a Certified Silicone-Free environment, achieving close tolerance precision in an industrial grade system. Contact our Fluid Dispensing specialists to take advantage of our experience with thousands of successful applications and to pick the right components for your specific application needs. For free samples, go to www.fishmancorp.com/samples.

**Arguments**

- Thick pastes
- Thin watery fluids
- Thin cyanoacrylates
- Solder paste
- Pre-mixed and frozen
- Microdots
- Bonding and gluing
- Potting and filling
- Beading and stripping

* Recommended • Satisfactory • Do not use

**SmartDispenser® LDAV-HT 3–30cc Dispense Gun and Retaining Rings**

- Foot Pedal
- Keyboard
- Mouse
- Earphone
- Video Camera
- Cisco Wireless Connectivity Device
- Needle Kit
- Manuals
- Power Supply Connection
- Universal Power Supply

**Applications**

- Thick pastes
- Thin watery fluids
- Thin cyanoacrylates
- Solder paste
- Pre-mixed and frozen
- Microdots
- Bonding and gluing
- Potting and filling
- Beading and stripping
**SPECIFICATIONS**

**Usage:** Indoor use

**Altitude:** Up to 2000m

**Temperature:** 0˚ to 40˚ C

**Maximum Relative Humidity:** 80% for temperatures up to 31˚ C decreasing linearly to 50% relative humidity at 40˚ C

**Mains Supply Voltage Fluctuations:** Not to exceed ±10%

**Installation Overvoltage:** Category II

**Pollution:** Degree 2, Class 1

**Input Voltage:** 100-240 VAC 47-63Hz

**Max Inrush Current:** 3.2A-1.8A

**Output Voltage:** 5.0VDC

**Output Power:** 4.6W

**Fuse Rating:** 1.0A/250 VAC

**Initiate Circuit:** Foot Pedal (dry contact) finger switch

**Drive Motor:** LDAV-HT 1.8 Degree 200 Steps/Rev

**Axial Movement:** LDAV-HT .096 Axial Pitch .00048”/Steps

**Control Circuitry:** CMOS microprocessor

**Interface:** Touch Screen or Keyboard/Mouse

**Minimum Dispense Volume:** 0.00086ml

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**CONTROL UNIT**

**Size:** 5.6 x 9.9 x 6.3in (14.23 x 25.15 x 16cm)

**Weight:** 4.7lbs (2.13 kg)

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**GUN**

**Length:** 7in (17.8cm)

**Weight:** 11oz (312 gr)

**Cable Length:** 3 feet (91.5cm)

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**What makes the SmartDispenser® so smart?**

**The combination of 3 powerful platforms.**

**AIR-FREE MANUFACTURING**

- One program – worldwide
- Closed-loop feedback
- 6-10X more repeatable than pneumatics
- Volume base numeric dispensing
- Positive displacement via stepper motor
- Firmware proven for over a decade
- Eliminates expensive air compressor
- Designed to integrate into automation systems using PLCs

**WINDOWS 7 NETWORKING**

- SD Device to MES System Networking
- Remote programming and lock out
- Real time production data
- Live video feed
- Auto e-mail of unauthorized program changes
- On screen work instruction (audio option)
- Connectivity between SmartDispensers® Desktop, Laptop and Smartphone.
- Video/Audio training and tutorials

**SMARTPHONE FUNCTIONALITY**

- Touch screen
- Finger gesturing controls
- MES Networking Apps
- Custom Manufacturing Apps