AirFree® Technology & Automation

AirFree® technology acts as an additional axis when mounted on a benchtop automation system. The precise control engineered into the X, Y and Z axis is now applied to the fluid delivery axis. All axes are motor driven lead screws with known speeds and can be coordinated providing the highest precision and repeatability available on a benchtop robot.

Total Cost of Ownership

AirFree® Technology Adds Profits When Replacing Air Driven Systems

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

![Graph showing total cost of ownership over 10 years for Air and AirFree technology, with AirFree® Technology adding profits when replacing air driven systems.](image-url)
**SDAV-HT-SDIK™ Small Dot Any Viscosity**

<table>
<thead>
<tr>
<th>SYRINGE SIZE</th>
<th>3CC</th>
<th>5CC</th>
<th>10CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN. VOL. (CC)</td>
<td>0.0022</td>
<td>0.0039</td>
<td>0.0065</td>
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<tr>
<td>MAX. VOL. (CC)</td>
<td>3.0</td>
<td>5.0</td>
<td>10.0</td>
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<tr>
<td>MIN. RATE (CC/SEC)</td>
<td>0.006</td>
<td>0.010</td>
<td>0.016</td>
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<tr>
<td>MAX. RATE (CC/SEC)</td>
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<td>0.236</td>
<td>0.392</td>
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<tr>
<td>MAX. BACKOFF (STEPS)</td>
<td>500</td>
<td>500</td>
<td>500</td>
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</tbody>
</table>

The SmartDispenser® SDAV-HT-SDIK™ (3-10cc) comes with 3-10cc Push-To-Connect™ Dispense Gun and 3, 5, 10cc Retaining Rings.

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

The SmartDispenser® SDAV-HT-SDIK™ (30cc) comes with 30cc Push-To-Connect™ 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.
**SPECIFICATIONS**

**Usage:** Indoor use  
**Altitude:** Up to 2000m  
**Temperature:** 0° to 40˚ C  
**Maximum Relative:** 80% for temperatures up to 31˚ C decreasing linearly to  
**Humidity:** 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:** PLC Input  
**Drive Motor:** SDAV-HT-SDIK™ 1.8 Degree 200 Steps/Rev  
**Axial Movement:** SDAV-HT-SDIK™ .024 Axial Pitch .00012”/Step  
**Control Circuitry:** CMOS microprocessor  
**Interface:** DVI Monitor/Mouse/Keyboard  
**Minimum Dispense Volume:** 0.00022ml  

**CONTROL UNIT**  
**Size:** 2.95 x 7.85 x 4.94in (7.5 x 20 x 12.6cm)  
**Weight:** 3lbs (1.36kg)  

**GUN**  
**Length:** 7in (17.8cm)  
**Weight:** 11oz (312gr)  
**Cable Length:** 30 Feet Detachable (9.144m)

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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  
- 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