Delivers Powerful, Focused Air Pulse to Disperse Material Buildup

The AirSweep® material activation system delivers on-demand product flow, eliminates hang-ups and blockages, cleans interior surfaces and enhances batch uniformity.

The Straight Shooter is designed for applications where a focused column of air is required to reach and activate material not accessible by the standard AirSweep 360-degree pulse pattern. The Straight Shooter is available in all standard AirSweep sizes (3/4", 1-1/2" and 2").

The Straight Shooter's design allows the powerful air pulse to extend in a tight column directly in front of the nozzle. The unit instantly re-seals to prevent clogging or material feedback. The "fire hose" effect of the air pulse makes these mini-blasters perfect for larger-sized pieces of material or for areas where the standard AirSweep cannot be mounted, such as across from inaccessible walls. Units can be easily mounted to blast in any direction using standard schedule 40 pipe connections. Because they instantly reseal, these units can even be mounted inside the vessel to blast away areas of buildup.

- Patented valve design utilizes only one moving part, ensuring an immediate reseal after each pulse to prevent clogging and material feedback
- System can be mounted inside or outside of the vessel
- Energy efficient – uses plant air
- Mount to metal, concrete, fiberglass or wood vessels
- Manufactured from high grade steel for long service life

Applications:

Straight Shooters are being used to move crushed ceramic tile, blow metallic brake dust off of mixer paddles (inside the mixer), and blow off flour and crumbs in a bakery application.

Contact us for a detailed AirSweep System proposal, engineered specifically for your application.
### AirSweep® Straight Shooter Activation Range

<table>
<thead>
<tr>
<th>Straight Shooter Model</th>
<th>Approximate Activation Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA-06</td>
<td>12” to 18” (305 to 460 mm)</td>
</tr>
<tr>
<td>VA-12</td>
<td>24” to 30” (610 to 760 mm)</td>
</tr>
<tr>
<td>VA-51</td>
<td>30” to 36” (765 to 915 mm)</td>
</tr>
</tbody>
</table>

Specifications subject to change without notice.
A typical Straight Shooter material activation system consists of strategically-located Straight Shooters, high-flow solenoid valves, electronic sequence controller and air receiver. The illustration below is intended to show components of a typical AirSweep system only and may not be representative of a vessel that would require a Straight Shooter system.

The average AirSweep® System uses less than 10 cfm of compressed air or gas making it energy and cost efficient. No damage, vibration, stress or wear to container walls.
AirSweep® Straight Shooter Mounting Options

Standard

Mounting Coupling Installation
(Weld to vessel)

Mounting Plate Installation
(Bolt to vessel)

Straight Shooter Mounting Coupling Installation

1. Cut hole in vessel wall. Recommended hole size is approximately 1/8” (3.175 mm) greater than diameter of coupling (see recommended hole size below), to allow coupling to pass through curved wall. Recommended hole size: VA-06-ST: 1-5/8” (41.275 mm) VA-12-ST: 3-1/8” (79.375 mm) VA-51-ST: 3-5/8” (92.075 mm)

2. Align coupling on vessel wall and weld continuous bead to exterior of wall.

3. Apply anti-seize compound to front threaded section of Straight Shooter. Thread Straight Shooter into coupling until front of valve head is flush with inside wall.

4. After Straight Shooter is positioned, tighten lock nut against coupling to keep Straight Shooter in position.

Straight Shooter Mounting Plate Installation


2. Drill or cut hole for Straight Shooter and bolt holes. The hole size should be sufficient diameter to allow Straight Shooter to pass through wall.

3. Fasten plate to wall by bolting.

4. Apply anti-seize compound to front threaded section of the Straight Shooter. Thread the Straight Shooter into position so the front of the valve head is aligned flush with the inside wall of vessel. This will properly position piston head within the vessel.

5. After the Straight Shooter is correctly positioned, tighten lock nut against plate to keep the Straight Shooter in position.

45° Angle-mounted

The 45° angle-mounted Straight Shooter is ideal for applications where the vessel walls may not be accessible for installation of a standard AirSweep system.

VA-06 Straight Shooter (with solenoid valve, 45° mounting coupling and lock nut)
AirSweep® Straight Shooter Assembly and Mounting

Standard materials of construction include:

- Carbon Steel
- 304 Stainless Steel
- 316 Stainless Steel

*Other materials available upon request.*

Straight Shooter Rebuild Kit

Straight Shooter Nozzle Rebuild Kit contains 1 each:
- valve stem
- spring guide
- compression washer
- compression spring
- elastic stop nut
- jam nut

Recommended service interval of internal parts: Approximately 1 million cycles.*

Maintenance recommended: Replacement of internal parts.

<table>
<thead>
<tr>
<th>Straight Shooter Model No.</th>
<th>Material of Construction</th>
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<tbody>
<tr>
<td>VA-06-ST</td>
<td>Carbon Steel</td>
</tr>
<tr>
<td></td>
<td>304 Stainless Steel</td>
</tr>
<tr>
<td></td>
<td>316 Stainless Steel</td>
</tr>
<tr>
<td>VA-12-ST</td>
<td>RK-06-CS-ST</td>
</tr>
<tr>
<td></td>
<td>RK-06-SS-ST</td>
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<tr>
<td></td>
<td>RK-06-316-ST</td>
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<tr>
<td>VA-51-ST</td>
<td>RK-51-CS-ST</td>
</tr>
<tr>
<td></td>
<td>RK-51-SS-ST</td>
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<tr>
<td></td>
<td>RK-51-316-ST</td>
</tr>
</tbody>
</table>

* Typical service interval under standard operating conditions. Some environments, materials and processes may result in a shorter useful service interval.
Typical Operating Parameters – Compressed Air/Gas Consumption for AirSweep® Straight Shooter Models

<table>
<thead>
<tr>
<th>Model</th>
<th>VA-06</th>
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<th>VA-51</th>
</tr>
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<tbody>
<tr>
<td></td>
<td><strong>Recommended operating pressure</strong></td>
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</tr>
<tr>
<td></td>
<td>40 to 60 psi</td>
<td>80 to 100 psi</td>
<td>80 to 100 psi</td>
</tr>
<tr>
<td></td>
<td><strong>Typical effective diameter of material activation</strong>&lt;br&gt;(dry, powdered material, 60-75 lbs/ft³)</td>
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<td></td>
<td><strong>Recommended pulse time</strong></td>
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<td><strong>Recommended pulse time</strong></td>
</tr>
<tr>
<td></td>
<td>250 milliseconds</td>
<td>250 milliseconds</td>
<td>250 milliseconds</td>
</tr>
<tr>
<td></td>
<td><strong>Approximate air/gas consumption rate per 250 millisecond pulse</strong></td>
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</tr>
<tr>
<td></td>
<td>0.38 ft³ at 40 psi</td>
<td>2.72 ft³ at 80 psi</td>
<td>2.99 ft³ at 80 psi</td>
</tr>
<tr>
<td></td>
<td>0.72 ft³ at 60 psi</td>
<td>3.54 ft³ at 100 psi</td>
<td>3.54 ft³ at 100 psi</td>
</tr>
<tr>
<td></td>
<td><strong>Typical sequence rate range</strong>&lt;br&gt;(application/material dependent)</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td><strong>Typical (approx.) compressed air/gas consumption rate range</strong>&lt;br&gt;(based on typical sequence rate range of 3 to 12 pulses/min)</td>
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<tr>
<td></td>
<td>1.14 to 4.56 scfm at 40 psi</td>
<td>8.16 to 32.64 scfm at 80 psi</td>
<td>8.97 to 35.88 scfm at 80 psi</td>
</tr>
<tr>
<td></td>
<td>2.16 to 8.64 scfm at 60 psi</td>
<td>10.62 to 42.48 scfm at 100 psi</td>
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</tbody>
</table>

**VA-06 Straight Shooter Compressed Air/Gas Consumption**

![VA-06 Straight Shooter Compressed Air/Gas Consumption Graph](image1)

**VA-12 Straight Shooter Compressed Air/Gas Consumption**

![VA-12 Straight Shooter Compressed Air/Gas Consumption Graph](image2)

**VA-51 Straight Shooter Compressed Air/Gas Consumption**

![VA-51 Straight Shooter Compressed Air/Gas Consumption Graph](image3)

○ = Consumption per 250 millisecond pulse