

**IMPROVED FOR MAXIMUM PERFORMANCE AND SAVINGS**

Up to 27% more airflow | Activates 5 to 7 feet (1.52m - 2.13m) of material | Ideal for medium to large hoppers, bins or chutes

**SOLVE TOUGH FLOW PROBLEMS**

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



**360° activation of material for controlled flow**

Each AirSweep nozzle directs a high-pressure, high-volume 360° bursts of compressed air or inert gas along the inside walls of process equipment or vessels, breaking friction to lift and sweep stalled material back into the flow stream.

The patented nozzle seals shut after each pulse to prevent material feedback.

Sequenced pulsing of strategically-positioned AirSweep units activate bulk material to produce first-in, first-out controlled flow.

**Product Highlights**

**BENEFITS**

- **Powerful:** Up to 27% increased air flow
- **Convenient:** can be disassembled and reassembled with a wrench and a pair of pliers
- **Longest product warranty** of 7 years
- **Versatile:** can be mounted to metal, concrete, fiberglass or wooden vessels

**STANDARD MATERIALS OF CONSTRUCTION**

- Carbon Steel
- 304 Stainless Steel
- 316 Stainless Steel
- Other materials upon request

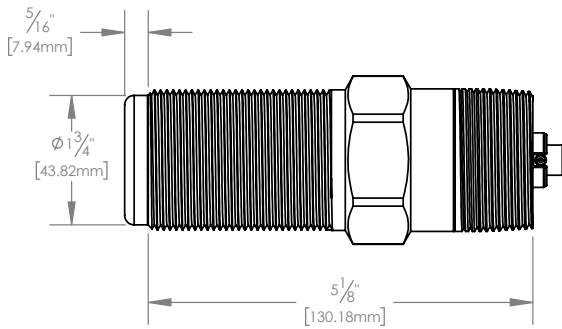
**Applications**

AirSweep® Systems have successfully handled the following materials *and more!*

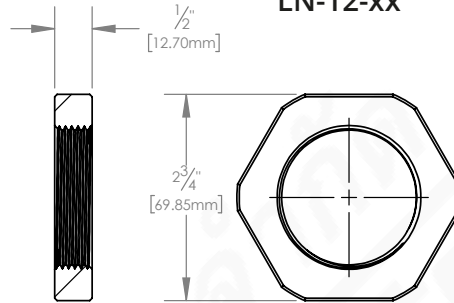
Foods		Mined		Chemicals		Other	
Animal feeds	Meal	Borax	Magnetite	Adipic acid	Iron oxide	Acetate	Pharmaceuticals
Brewers grain	Oat hulls	Coal	Phosphate	Boric acid	Lead chromate	Cements	Plastics
Chocolate	Rice bran	Copper	Shale	Calcine	Polyacrilimide	Chalk	Resins
Grains	Salts	Gypsum	Soda ash	Calcium carbonate	Sodium sulfite	Detergents	Sludge
Flour	Starch	Lead	Trona	Herbicides	Titanium dioxide	Fertilizer	Tobacco
Hops	Sugar	Limestone	Uranium	Hydrated Lime	Zinc	Fly ash	Wax flakes/pellets

# MODEL VA-12-MAX PRODUCT SPECIFICATIONS

VA-12-MAX-NPT-TB

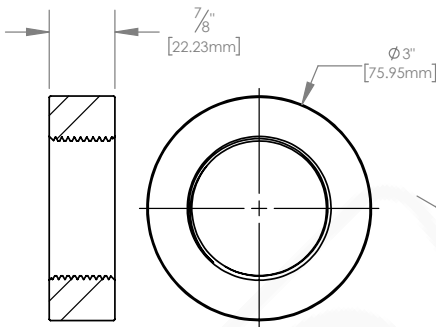


Lock Nut  
LN-12-xx

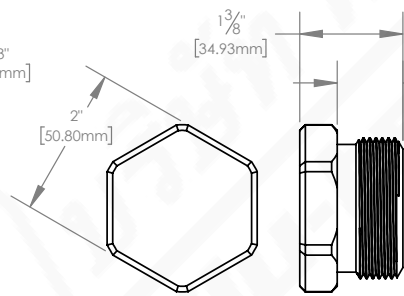


## MOUNTING OPTIONS

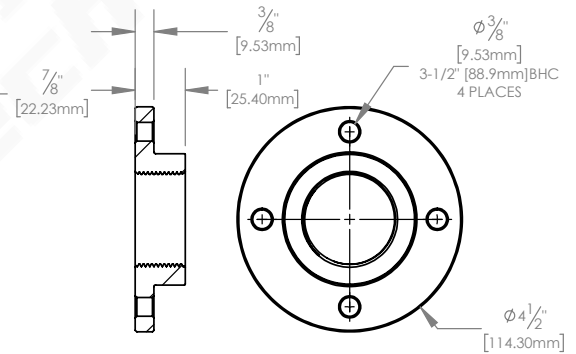
Mount Coupling  
MC-12-xx  
(Weld to vessel)



PLUG/HEAT SINK  
12-xx



Mounting Flange  
MF-12-xx  
(Bolt to vessel)



Additional mounting options available upon request

### Performance (per unit)\*

Material Activation Diameter	Compressed Air/Gas Consumption (per pulse)
5 feet (1.52 m)	1.72 scf @ 60 psi (.049 m <sup>3</sup> @ 4.14 bar)
7 feet (2.13 m)	2.85 scf @ 100 psi (.081 m <sup>3</sup> @ 6.89 bar)

\*Average in 75 lbs/ft<sup>3</sup> material; 250 millisecond pulse

### Component Weights

Component	Carbon Steel	304 Stainless Steel	316 Stainless Steel
VA-12-NPT-TB	2.76 lb (1.25 kg)	2.81 lb (1.27 kg)	2.81 lb (1.27 kg)
LN-12	0.53 lb (0.24 kg)	0.54 lb (0.25 kg)	0.54 lb (0.24 kg)
MC-12	1.08 lb (0.49 kg)	1.09 lb (0.50 kg)	1.09 lb (0.50 kg)
MF-12	1.81 lb (.82 kg)	1.83 lb (.83 kg)	1.83 lb (.83 kg)

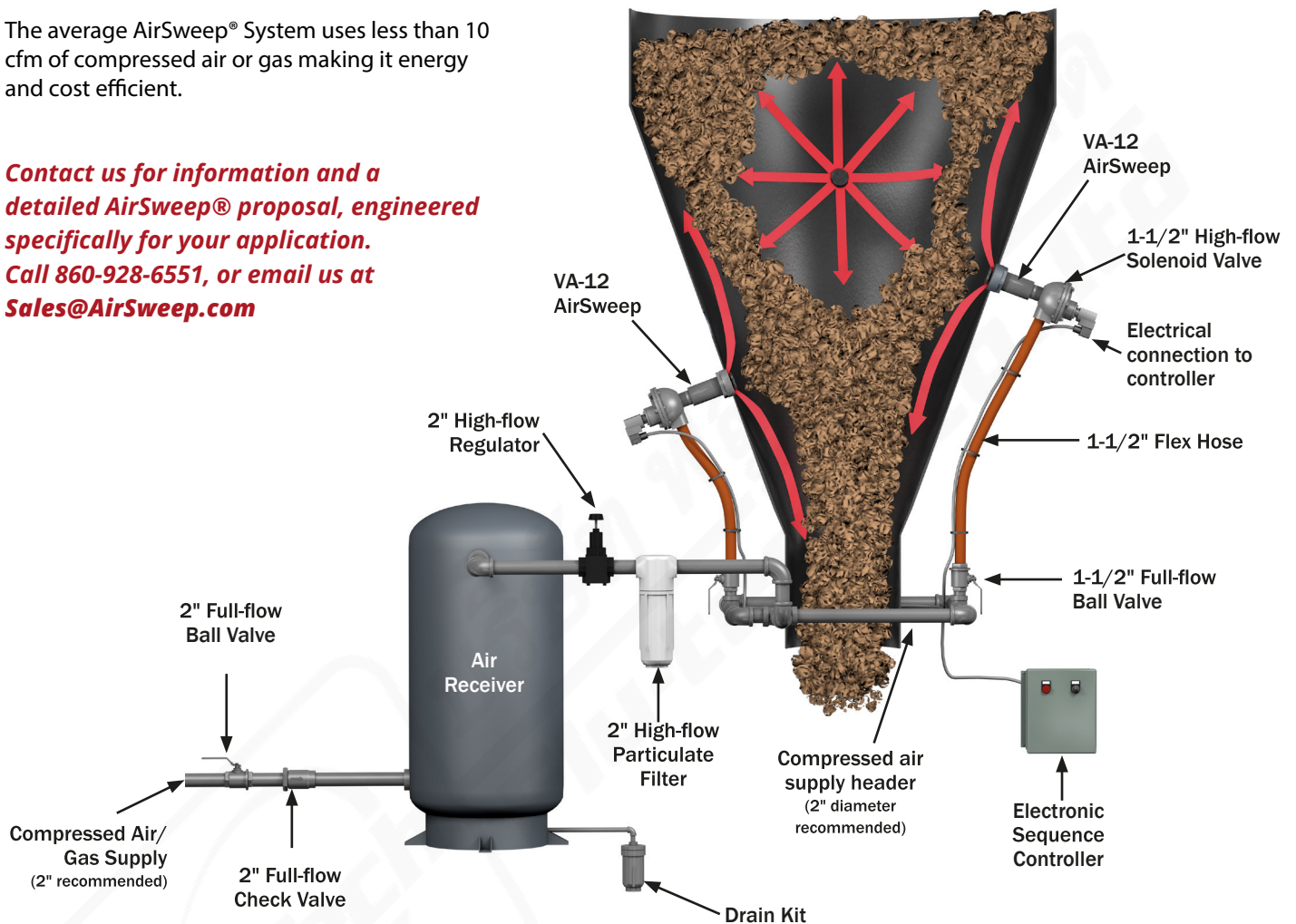
\*\*Weight not available. Call 860-928-6551 for more information.

# TYPICAL AIRSWEEP VA-12-MAX SYSTEM

A typical AirSweep material activation system consists of strategically-located AirSweep units, high-flow solenoid valves, electronic sequence controller and air receiver.

The average AirSweep® System uses less than 10 cfm of compressed air or gas making it energy and cost efficient.

Contact us for information and a detailed AirSweep® proposal, engineered specifically for your application. Call 860-928-6551, or email us at [Sales@AirSweep.com](mailto:Sales@AirSweep.com)

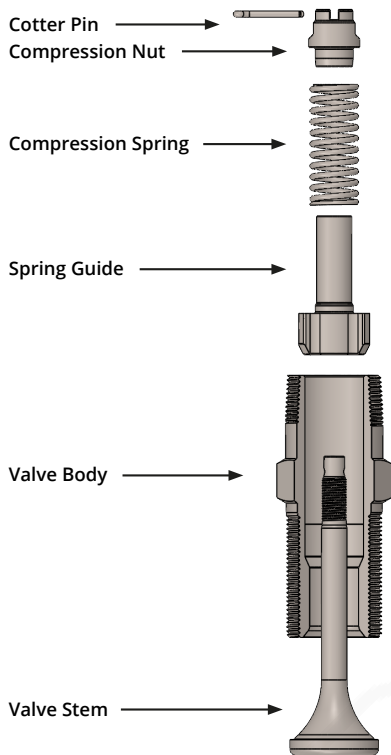


## Typical AirSweep Components

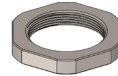
- **Solenoid Valve.** Delivers rapid, high-volume pulse of compressed air/gas to AirSweep nozzle
- **Flex Hose Assembly.** Connects the solenoid valve to hard-piped header loop
- **1-1/2" Full-flow Ball Valve.** Isolation valve for individual nozzles
- **2" High-flow Particulate Filter.** Point-of-use particulate filtration that enhances life of system components by removal of in-line contaminants
- **80-gallon Air Receiver (227.1 L).** Compressed air reservoir ensures instantaneous volume for system
- **2" High-flow Regulator.** Regulates compressed air supply within 60-100 psi for proper AirSweep operation
- **2" Full-flow Check Valve.** Ensures one-way flow to system
- **2" Full-flow Ball Valve.** System shut-off
- **Electronic Sequence Controller.** Controls sequenced pulsing of AirSweep system; adjustable for any process

# VA-12-MAX ASSEMBLY AND MOUNTING

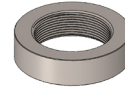
## Individual Parts



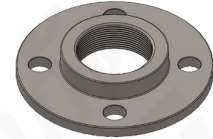
## Mounting Options



Lock Nut



Mounting Coupling  
(Weld to vessel)



Mounting Flange  
(Bolt to vessel)

Qty.	Description	Carbon Steel	304 Stainless Steel	316 Stainless Steel
1	Valve Body	VB-12-MAX-CS	VB-12-MAX-SS	VB-12-MAX-316
*1	Valve Stem	VCW-12-MAX-CS	VCW-12-MAX-SS	VCW-12-MAX-316
*1	Spring Guide	SG-12-MAX-CS	SG-12-MAX-SS	SG-12-MAX-316
*1	Compression Spring	CS-1251-MAX-316	CS-1251-MAX-316	CS-1251-MAX-316
*1	Compression Nut	-	-	CPN-1251-316
*1	Cotter Pin	-	-	CP-1251-316
1	Mounting Flange	MF-12-CS-T	MF-12-CS-T	MF-12-316-T
1	Mounting Coupling	MC-12-CS	MC-12-SS	MC-12-316
1	Lock Nut	LN-12-CS	LN-12-SS	LN-12-316

\*This part is included in the Rebuild Kit.

## Rebuild Kit

### PARTS

- Valve Stem
- Spring Guide
- Compression Spring
- Compression Nut
- Cotter Pin

### NOTES

1. When ordering, specify material of construction

		Model VA-12-MAX Rebuild Kit
Construction Material	Carbon Steel	RK-12-MAX-CS
	304 Stainless Steel	RK-12-MAX-SS
	316 Stainless Steel	RK-12-MAX-316

2. Recommended service interval of internal parts:

Approximately 1 million cycles (Typical service interval under standard operating conditions. Some environments, materials and processes may result in a shorter useful service interval.)

# VA-12-MAX TYPICAL OPERATING PARAMETERS

<b>Recommended operating pressure</b>	60 to 100 psi (4.14 to 6.89 bar)
<b>Typical effective diameter of material activation</b> (dry, powdered material, 60-75 lbs/ft <sup>3</sup> )	5 to 7 feet (1.52m to 2.13m) around each nozzle
<b>Recommended pulse time</b>	250 milliseconds
<b>Approximate air/gas consumption rate per 250 millisecond pulse</b>	1.72 ft <sup>3</sup> (.049 m <sup>3</sup> ) @ 60 psi (4.14 bar) 2.85 ft <sup>3</sup> (.081 m <sup>3</sup> ) @ 100 psi (6.89 bar)
<b>Typical sequence rate range</b> (application/material dependent)	3 pulses to 12 pulses per minute
<b>Typical (approx.) compressed air/gas consumption rate range</b> (based on typical sequence rate range of 3 to 12 pulses/min)	5.16 to 20.64 scfm @ 60 psi (4.14 bar) 8.55 to 34.2 scfm @ 100 psi (6.89 bar)

## VA-12-MAX Compressed Air/Gas Consumption

