AIRSWEEP® MAX MATERIAL ACTIVATION XCELLENCE

VA-12-MAX-316-TRI-TRI

1-1/2" (38.1mm) SANITARY-STYLE AIRSWEEP® SYSTEMS

Ideal for applications requiring easy installation and removal for cleaning or sanitizing

SOLVE TOUGH FLOW PROBLEMS AND ELIMINATE RATHOLES, BRIDGING AND STICKY BUILDUP

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

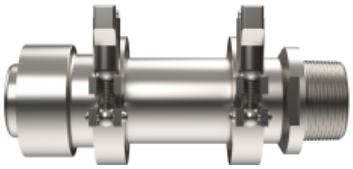
360° activation of material for controlled flow

Each AirSweep directs a high-pressure, high-volume 360° burst 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 AirSweep design ensures an immediate reseal after each pulse to eliminate material feedback.

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

Product Highlights

- Patented valve design utilizes only one moving part, ensuring an immediate reseal after each pulse to prevent clogging and material build-up
- System is mounted on the outside of the vessel for easy cleaning and maintenance
- Tri-clover clamp allows simple installation and removal without tools
- Low air consumption – each unit uses less than 10 CFM, on average
- Activates 4 to 6 feet (1.22 to 1.83 meters) diameter of material
- Manufactured from high-grade 316 Stainless Steel for long service life



	Performance, per unit*		
	Solenoid Valve Diameter	Material Activation Area (diameter)	Compressed Air/Gas Consumption (per pulse)
VA-12-MAX-316-TRI-TRI	1-1/2" (38.1 mm)	4 feet (1.22 m)	1.72 f^3 @ 60 PSI (.049 m^3 @ 4.14 Bar)
		6 feet (1.83 m)	2.85 f^3 @ 100 PSI (0.081 m^3 @ 6.89 Bar)

**Average per 75 lbs/ft^3 material; 250 millisecond pulse*

Specifications subject to change without notice.

Contact us for a detailed AirSweep® System proposal, engineered specifically for your application.

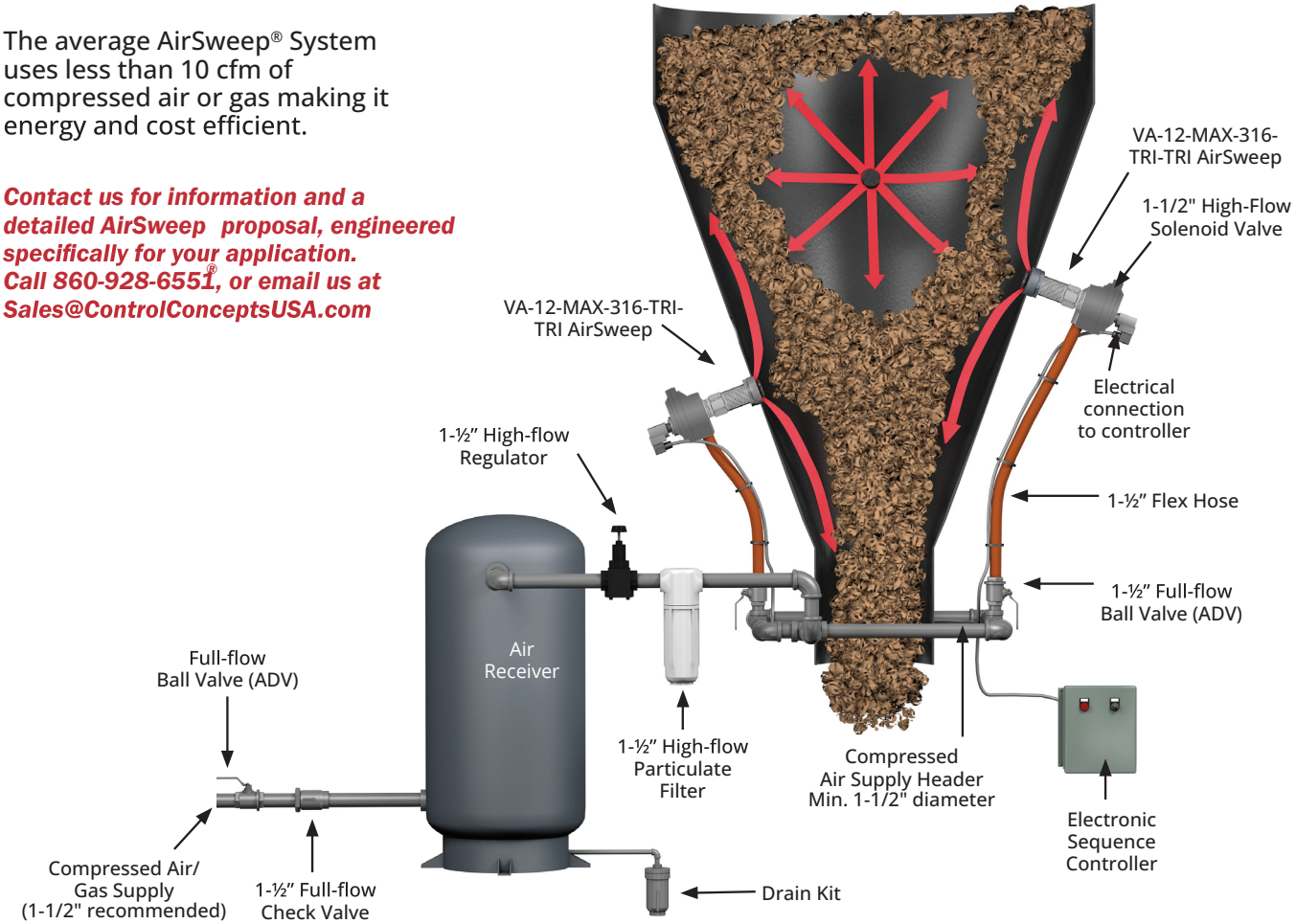
CONTROL CONCEPTS USA 1-860-928-6551 | Sales@AirSweep.com | www.AirSweep.com

TYPICAL TRI-CLAMP MODEL AIRSWEEP® SYSTEM

A typical AirSweep® material activation system consists of strategically-located AirSweep, 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@ControlConceptsUSA.com



Typical AirSweep® System Components

AirSweep	Model VA-12-MAX-316-TRI-TRI (ATEX Rated)
1-1/2" Solenoid Valve	Delivers rapid, high-volume pulse of compressed air/gas to the AirSweep
1-1/2" Flex Hose Assembly	Connects the solenoid valve to hard-piped header loop
1-1/2" Full-flow Ball Valve	Isolation valve for individual AirSweep Valve Assemblies. The use of auto drain valves (ADV) is highly recommended in pneumatic applications for safety and OSHA compliance
1-1/2" High-flow Particulate Filter	Point-of-use particulate filtration enhances life of system components by removal of in-line contaminants
60-gallon Air Receiver	Compressed air reservoir ensures instantaneous volume for system (Additional sizes in stock and available upon request)
1-1/2" High-flow Regulator	Regulates compressed air supply within 60-100 PSI (4.14-6.89 Bar) for proper AirSweep operation
1-1/2" Full-flow Check Valve	Ensures one-way flow to the system
1-1/2" Full-flow Ball Valve	System shut-off
Electronic Sequence Controller	Controls sequenced pulsing of AirSweep system; adjustable for any process (NEMA 4X and NEMA 7/9 enclosed timers are in stock.)

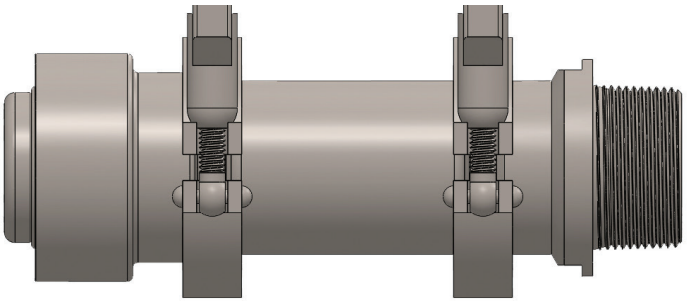
Important Note: For safety and future flexibility during installation and maintenance, we recommend instituting the use of unions as needed (also available for purchase).

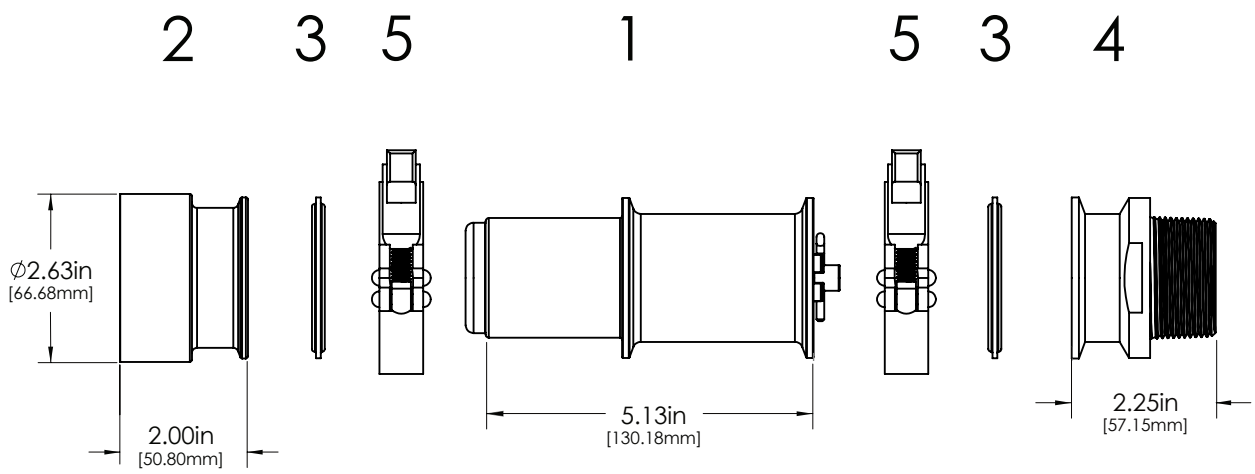
Contact us for a detailed AirSweep® System proposal, engineered specifically for your application.

TRI-CLAMP MODEL SPECIFICATIONS

Specifications subject to change without notice.

VA-12-MAX-316-TRI-TRI





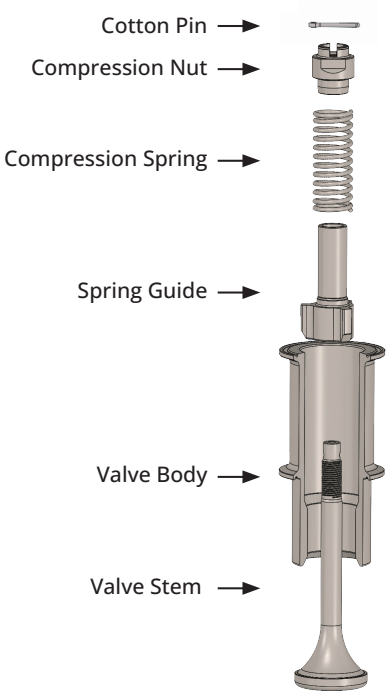
Item No.	Description	Qty.
1	Tri-Clamp unit	1
2	Mounting Coupling	1
3	Gasket	2
4	Adapter	1
5	Clamp	2

	Weight VA-12-MAX-316-TRI-TRI
Tri-Clamp unit	3.24 lb (1.47 kg)
Mounting Coupling	1.12 lb (.51 kg)
Adapter	.70 lb (.32 kg)
Clamp	.56 lb (.25 kg)

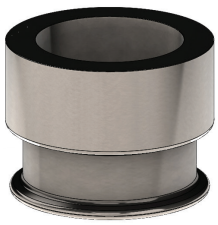
Contact us for a detailed AirSweep® System proposal, engineered specifically for your application.

CONTROL CONCEPTS USA
1-860-928-6551 | Sales@AirSweep.com | www.AirSweep.com

INDIVIDUAL PARTS AND MOUNTING OPTION



Mounting Coupling for
VA-12-MAX-316-TRI-TRI
(Weld to vessel)



Qty.	Description	VA-12-MAX-TRI-TRI
1	Valve Body	VB-12-MAX-316-TRI-TRI
*1	Valve Stem	VCW-12-MAX-316
*1	Spring Guide	SG-12-MAX-316
*1	Compression Spring	CS-1251-316
*1	Compression Nut	CPN-12/51-MAX-316
*1	Cotter Pin	CP-12/51-316

* This part is included in the Rebuild Kit.

Maintenance & Rebuild Kits

AirSweep Rebuild Kit contains 1 each:

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

Spring Kit (SK) Parts:

- Compression Spring
- Cotter Pin

RK-12-MAX-316

NOTES:

1. Perform a visual inspection of the Valve Stem, Spring Guide, Compression Spring, and Compression Nut for wear and proceed with one of the two options below depending on the outcome of your inspection:

a. If after inspection it is determined that there will be no performance impact with the reuse of the inspected parts, then it is advised to order P/N: SK-12-MAX-316. This is a Spring Kit consisting of a new Compression Spring and Cotter pin (only).

b. If it is determined that all inspected parts need replacement, then it is advised to order the full Rebuild Kit P/N: 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.)

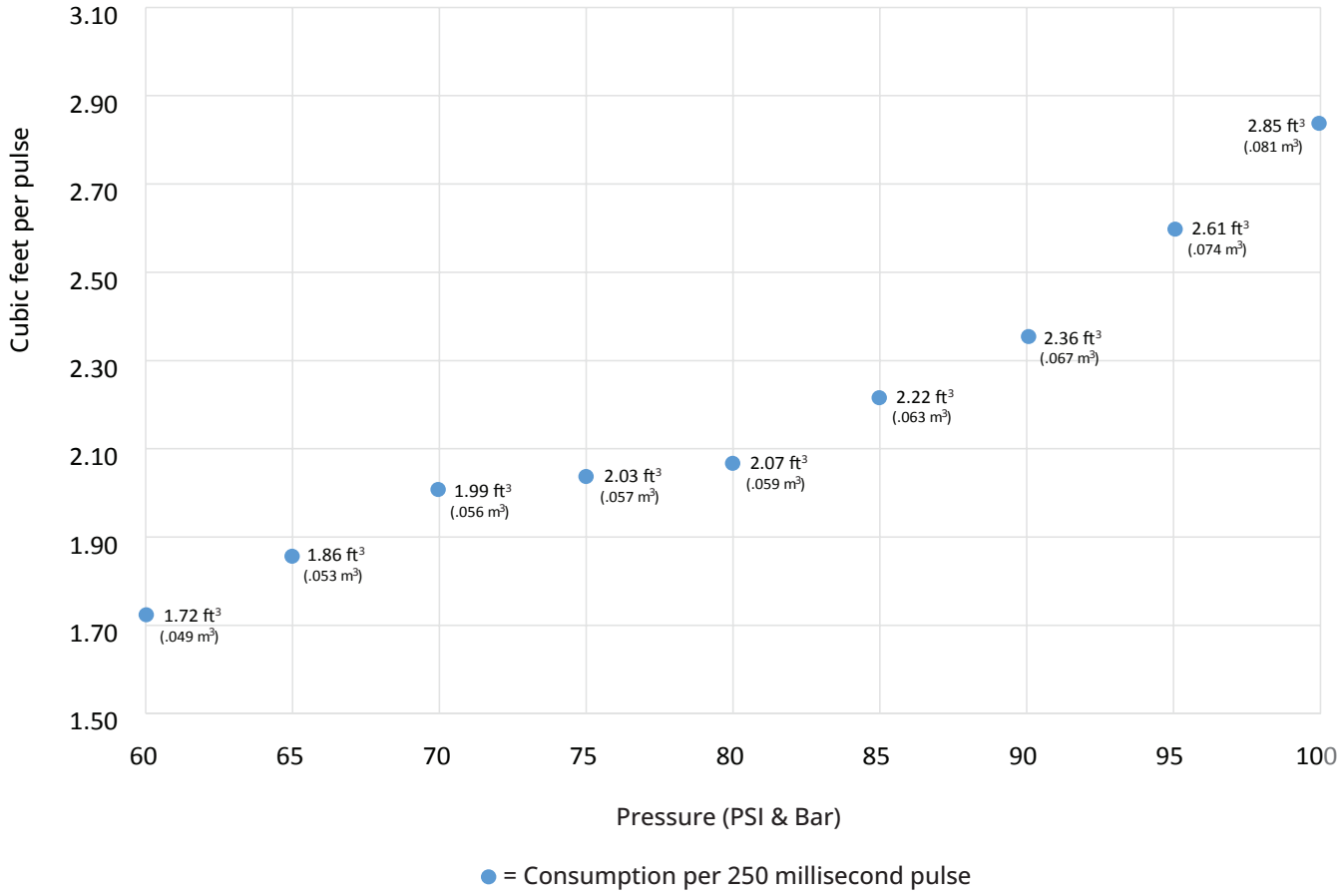
Contact us for a detailed AirSweep® System proposal, engineered specifically for your application.

CONTROL CONCEPTS USA
1-860-928-6551 | Sales@AirSweep.com | www.AirSweep.com

TYPICAL OPERATING PARAMETERS

Model	VA-12-MAX-316-TRI-TRI
Recommended operating pressure	60 to 100 PSI (4.14 to 6.89 Bar)
Typical effective diameter of material activation (dry, powdered material, 60-75 lbs/ft^3)	4 to 6 feet (1.22 to 1.83 m) around each valve stem
Recommended pulse time	250 milliseconds
Approximate air/gas consumption rate per 250 millisecond pulse	1.72 ft^3 (.049 m^3) @ 60 PSI (4.14 Bar) 2.85 ft^3 (.081 m^3) @ 100 PSI (6.89 Bar)
Typical sequence rate range (application/material dependent)	3 pulses to 12 pulses per minute
Typical (approx.) compressed air/gas consumption rate range (based on typical sequence rate range of 3 to 12 pulses/min)	5.16 to 20.64 ft^3 (.15 to .58 m^3) @ 60 PSI (4.14 Bar) 8.55 to 34.2 ft^3 (.24 to .97 m^3) @ 100 PSI (6.89 Bar)

VA-12-MAX-316-TRI-TRI Compressed Air/Gas Consumption



Contact us for a detailed AirSweep® System proposal, engineered specifically for your application.

CONTROL CONCEPTS USA
1-860-928-6551 | Sales@AirSweep.com | www.AirSweep.com