AIRSWEEP® MAX MATERIAL ACTIVATION XCELLENCE

MODEL VA-06-MAX-TRI-TRI

3/4" (19.05 MM) SANITARY 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

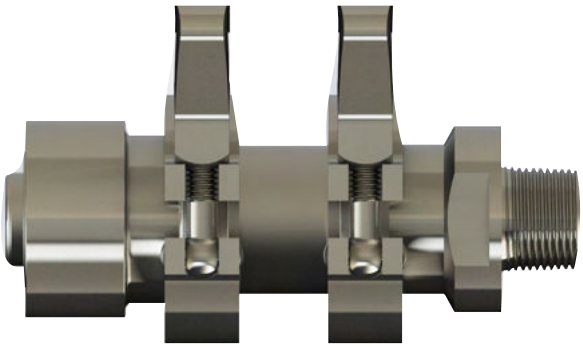
Each AirSweep MAX directs high-pressure, high-volume 360° bursts of compressed air or inert gas along the inside walls of process equipment or vessels, breaking friction to lift and sweep stalled material back into the flow stream. The patented AirSweep design ensures an immediate reseal after each pulse to eliminate material feedback.

Sequenced pulsing of strategically-positioned AirSweep MAX units activate bulk material to produce a first-in, first-out (FIFO) 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
- Activate 2 ft. (0.60 m) to 3 ft. (0.91 m) diameter of material (depending on model)
- Manufactured from high-grade 316 Stainless Steel for long service life
- Traceability - All machined components are available with material certifications



Performance, per unit*		
Pulse Valve Diameter	Material Activation Area (diameter)	Compressed Air/Gas Consumption (per pulse)
3/4" (19.05 mm)	2 feet (0.61 m)	0.08 scf @ 40 PSI (0.002 m^3 @ 2.76 Bar)
	3 feet (0.91 m)	0.45 scf @ 60 PSI (.0127 m^3 @ 4.14 Bar)

** Average 75 lbs/ft3 material; 250 millisecond pulse*

Specifications subject to change without notice.

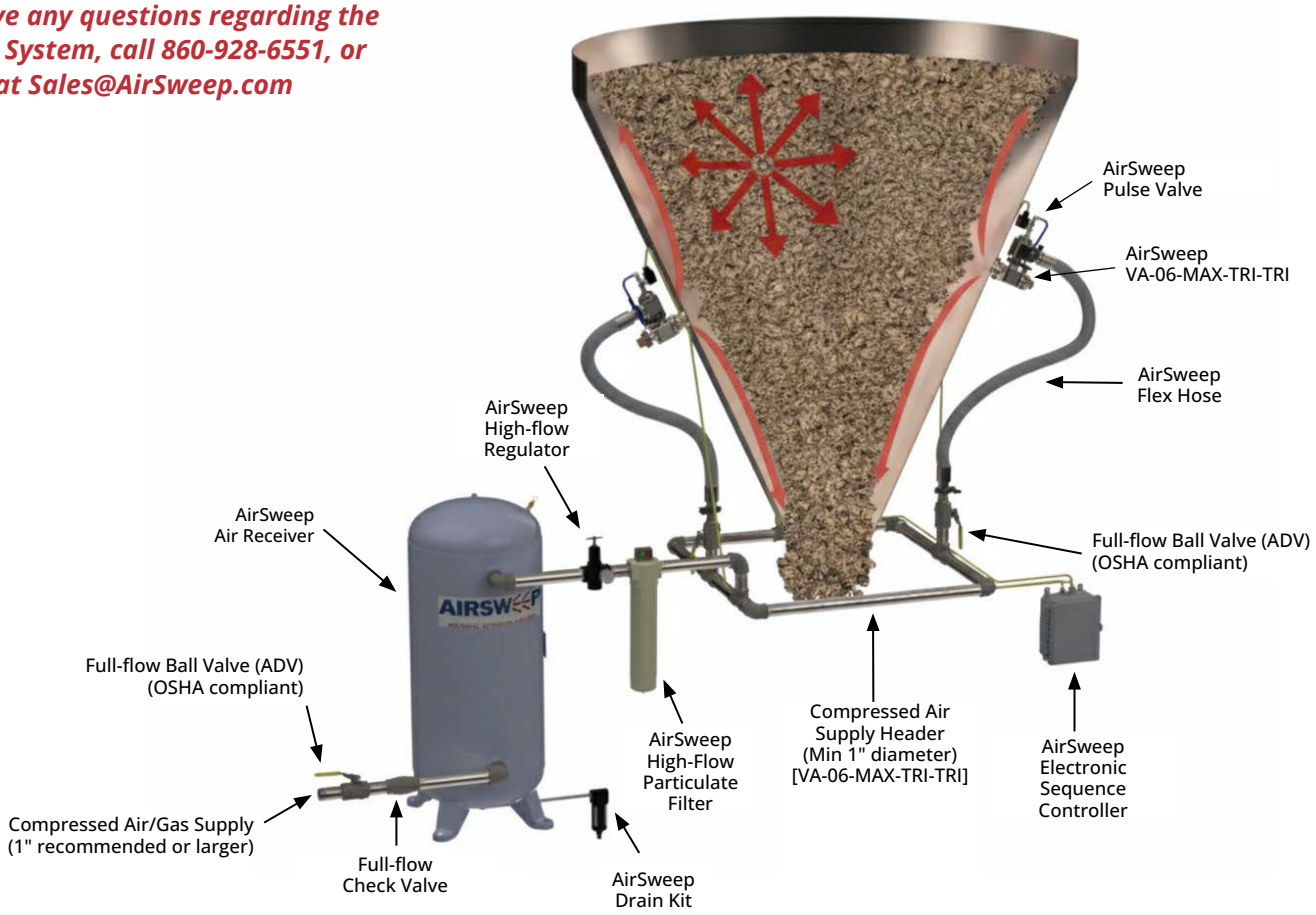
Contact us for a detailed AirSweep® System proposal, engineered specifically for your application.

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 units, high-flow AirSweep Pulse Valves, electronic sequence controller and air receiver.

If you have any questions regarding the AirSweep System, call 860-928-6551, or email us at Sales@AirSweep.com



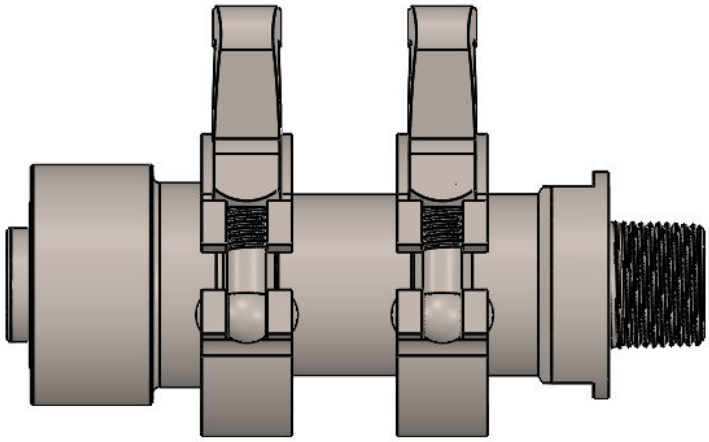
Typical Airsweep® System Components

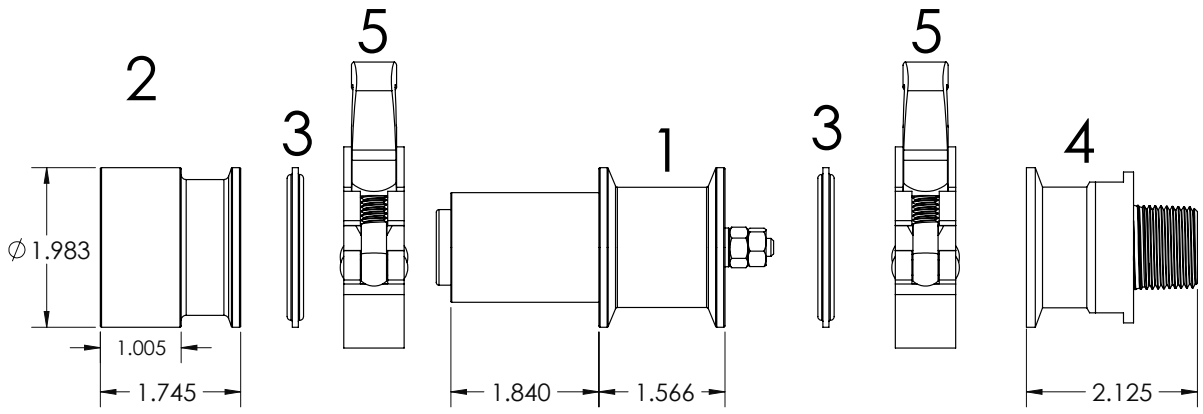
AirSweep MAX	Model VA-06-MAX-TRI-TRI
3/4" AirSweep Pulse Valve	Delivers rapid, high-volume pulse of compressed air/gas to the AirSweep MAX
3/4" Flex Hose Assembly	Connects the solenoid valve to the hard-piped header loop
3/4" Full-flow Ball Valve	Isolation valve for individual AirSweep Valve Assemblies. The use of auto drain valves (ADV) is highly recommended in pneumatic applications for safety and OSHA compliance.
1" High-flow Particulate Filter	Point-of-use particulate filtration enhances life of system components by removal of in-line contaminants
30-gallon or larger Air Receiver	Compressed air reservoir ensures instantaneous volume for the system.
1" High-flow Regulator	Regulates compressed air supply within 40-60 PSI (2.76 Bar - 4.14 Bar) for proper AirSweep operation
1" Full-flow Check Valve	Ensures one-way flow to the system
1" 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.)

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

TRI CLAMP MODEL SPECIFICATIONS

VA-06-MAX-TRI-TRI





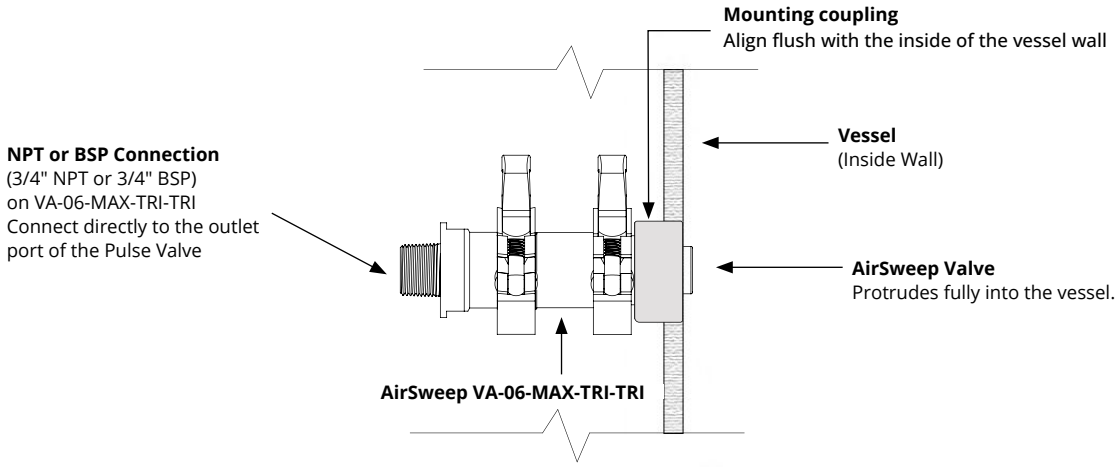
Item No.	Description	Quantity
1	Tri-Clamp AirSweep Body	1
2	Mounting Coupling	1
3	TRI-Gasket	2
4	TRI-Adapter	1
5	TRI-Clamp	2

Description	Weight
Tri-Clamp Unit	1.38 lb (0.63 kg)
Mounting Coupling	0.64 lb (0.29 kg)
TRI-Adapter	0.56 lb (0.25 kg)
TRI-Clamp	0.62 lb (0.28 kg)

Specifications subject to change without notice.

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

MOUNTING INSTRUCTIONS FOR TRI-CLAMP MODELS



MC-06-TRI Mounting Coupling Installation (Reference page 3 for components list)

1. Cut a hole in the vessel wall. The hole should be: 2.046" (51.97 mm) for MC-06-TRI.
2. Align mounting coupling flush with inside of vessel wall and weld continuous bead to exterior of wall.*
3. Install the clamp gasket into the inner groove of the mounting coupling flange.
4. Push the AirSweep fully into the mounting coupling, ensuring the clamp gasket is securely compressed between them.
5. Install the tri-clover clamp around the AirSweep and mounting coupling flange, then tighten it by hand until snug.
6. Apply Teflon tape to adapter thread and thread AirSweep Pulse Valve onto adapter. Do not over-tighten. Do not use pipe dope or paste on the threads, as these materials can damage the AirSweep Pulse Valve.
7. Install clamp gasket to the groove on the rear AirSweep MAX flange.
8. Position the adapter flange to align with the rear AirSweep flange. Ensure that the gasket is securely sandwiched between the two parts.
9. Install the tri-clover clamp around the rear flange and hand-tighten until snug.

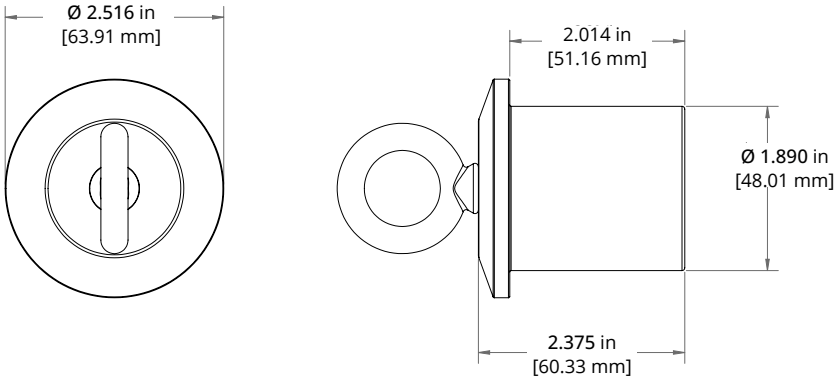
NOTE:

- On sharply curved vessel walls, the front surface of the mounting coupling may extend slightly into the vessel at the top and bottom (12:00 and 6:00 positions) but should be flush at the sides (3:00 and 9:00 positions).
- For maximum effectiveness, connection between adapter and AirSweep Pulse Valve should be direct, with no additional pipe nipples or fittings. When possible, use only the supplied adapter. If additional pipe length is required, consult with the AirSweep application engineering team to design the most efficient system layout between the AirSweep Pulse Valve Air Outlet and AirSweep VA-06-MAX-TRI-TRI Air Inlet.

⚠ ***Welding procedure, when allowed, requires tacking and the use of a heat sink to avoid warping of Mounting Coupling.** Welding should be done in accordance with the American Welding Society (AWS) standards as supported by ASME (American Society of Mechanical Engineers)

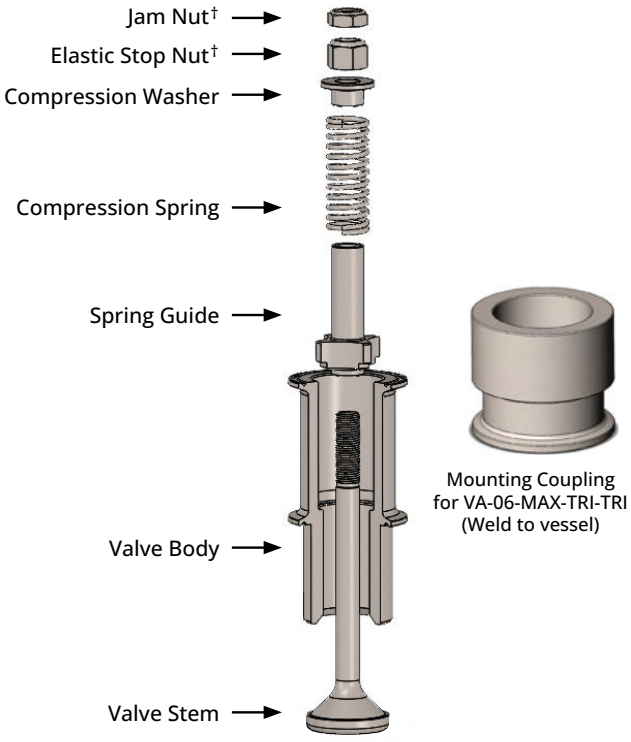
VA-06-MAX-TRI-TRI HEAT SINK (HS-06A-TRI & HS-06-TRI)

Available in Copper or Aluminum



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

TRI-CLAMP MODEL ASSEMBLY AND MOUNTING



Mounting Coupling
for VA-06-MAX-TRI-TRI
(Weld to vessel)

Qty	Description	VA-06-MAX-TRI-TRI
1	Valve Body	VB-06-MAX-316-TRI-TRI
*1	Valve Stem	VCW-06-MAX-316
*1	Spring Guide	SG-06–MAX-316
*1	Compression Spring	CS-06-316
*1	Compression Washer	CW-06-316
*2	Elastic Stop Nut	ESN-06-SS
1	Mounting Coupling	MC-06-316-TRI

** This part is included in the Rebuild Kit*
† VA-06-MAX-TRI-TRI model includes two (2) Elastic Stop Nuts

TRI-TRI Model Rebuild Kit

AirSweep Rebuild Kit contains one 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
RK-06-MAX-316 (at 1 million cycles)

RK-06-MAX-316

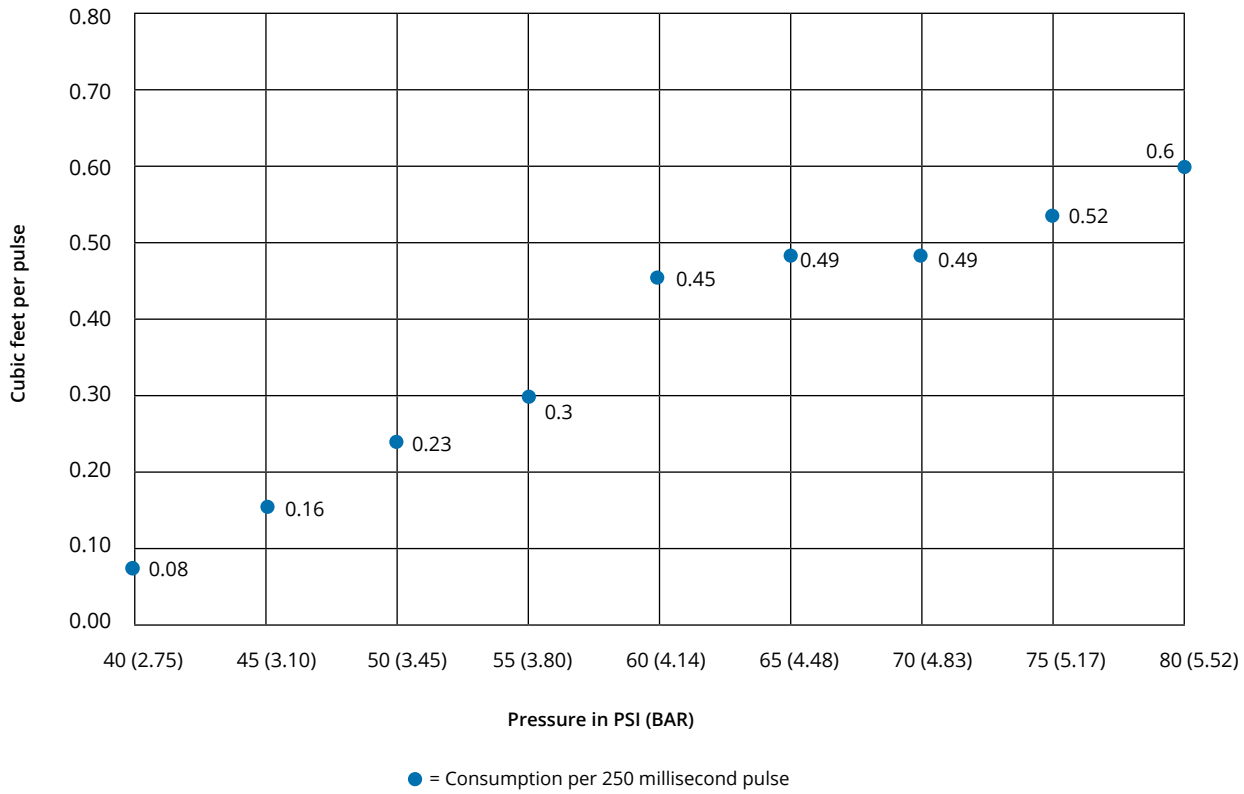
** Typical service interval under standard operating conditions. Some environments, materials and processes may result in a shorter useful service interval.*

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

TYPICAL OPERATING PARAMETERS COMPRESSED AIR/GAS CONSUMPTION

Model	AirSweep VA-06-MAX-TRI-TRI
Recommended operating pressure	40 to 60 PSI (2.75 to 4.13 Bar)
Typical effective diameter of material activation (dry, powdered material, 60-75 lbs/ft^3)	2 to 3 feet (0.61 to 0.91 m)
Recommended pulse time	250 milliseconds (quarter of a second)
Approximate air/gas consumption rate per 250 millisecond pulse	0.45 ft^3 @ 60 PSI (4.13 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)	1.35 to 5.4 scfm @ 60 PSI (4.13 Bar)

VA-06-MAX-TRI-TRI Compressed Air/Gas Consumption



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