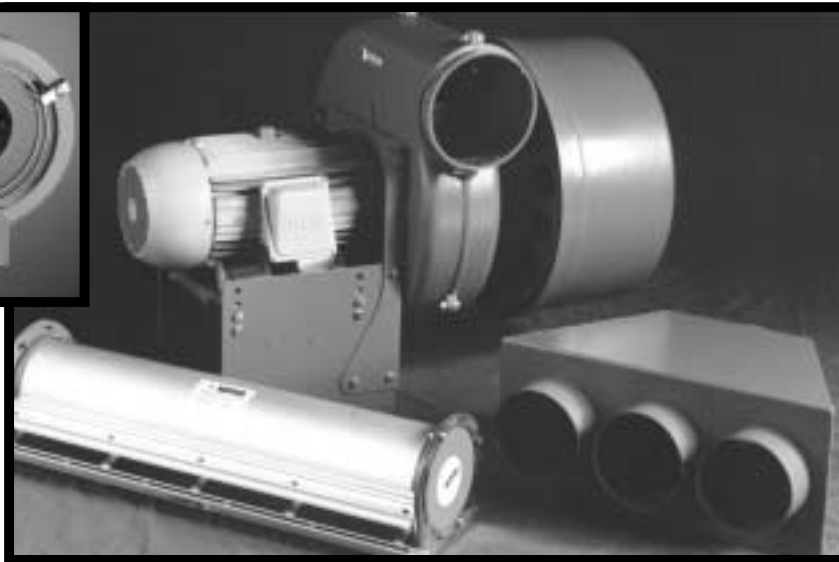


Magnum Force™ Ionizing Air Systems



**Magnum
Force
Ionizing
Nozzle**



Magnum Force Ionizing Air Knife System



Auto parts blow-off



Appliance blow-off

Description

SIMCO Industrial Static Control's Magnum Force Ionizing Air Systems combine static eliminators with blower generated air knives and nozzles to produce a continuous jet of clean ionized air for removal of particulate from flat or contoured surfaces. Each system includes one or more ionizing air knives or ionizing nozzles and a blower system. The blower system performance levels are custom configured for each application and each system includes a blower, motor, silencer and filter. The Magnum Force systems use a blower instead of compressed air, reducing operational costs by 30% to 70% (see chart on reverse).

The Magnum Force Ionizing Air Knife System is designed for easy configuration into large halo systems for automotive and truck body cleaning prior to painting. Other applications include:

- Automotive interior parts, appliances and plastic products cleaning prior to painting
- Wooden panels, doors and cabinet cleaning
- Liquid blow-off
- Can and bottle cleaning
- Thermoformed and injection molded parts cleaning
- Glass and plastic sheet cleaning

The Magnum Force Ionizing Nozzle delivers a focused, high velocity air jet at a distance of up to 48". The nozzle's targeted blow-off is effective on surfaces including:

- Plastics
- Metal
- Glass
- Wood

Ionizing Nozzles can also be used for spot finishing with an air knife system when used for surface and liquid blow-off.

Features and Benefits

Blower

- Blower system promotes fast ROI and continuous operational costs savings of 30% - 70% by eliminating compressed air.
- Light blow-off system is up to 34% quieter than other systems available.

Ionizing Air Knife System

- Combined air knife lengths up to 400" and air velocities from 5,000 to 25,000 fpm.
- Adjustable air knife blades provide control of the air jet for each application.
- Static bars quickly neutralize static, facilitating easy removal of dust and dirt, as well as reducing quality rejects caused by contamination.
- Liquid blow-off configurations available.
- Versatile mounting brackets simplify installation and positioning.
- Anodized body with powder coated end brackets provide corrosion resistance.

Ionizing Nozzle

- Concentrated air jet optimizes cleaning performance.
- Radial static bar quickly neutralizes static, facilitating easy removal of dust and dirt, as well as reducing quality rejects caused by contamination.
- Can be installed up to 48" away from target surface.

Magnum Force™ Ionizing Air Systems



An Illinois Tool Works Company

Magnum Force Air Knife System vs. Compressed Air Knife Operating Costs¹

Air Knife Length	Annual Cost (2000 hrs) with Magnum Force ²	Annual Cost (2000 hrs) with compressed air knife ³	Annual Savings with the Magnum Force	
24"	\$420	\$ 2,160	\$ 1,740	1. Based on a system used for removing static and light to medium sanding dust. 2. Using 4" diameter air knives and 5HP system. 3. Based on an operating cost of \$0.31/1,000 scfm and air usage of 2.4 scfm/in.
60"	\$835	\$ 5,400	\$ 4,565	
90"	\$835	\$ 8,100	\$ 7,265	
120"	\$835	\$10,800	\$ 9,965	
180"	\$835	\$16,200	\$15,365	

Specifications

Magnum Force Ionizing Air Knife

Standard Unit Overall Lengths (OAL)

- 4" dia. up to 60"; 6" dia. up to 108"
- Available in 6" increments. Custom sizes available

Air Output Velocity Control

- Output orifice adjustable from .032" to .250"

Standard Inlet Location

- Air knife supplied standard with end inlet. Center inlet and double top inlet options available

Mounting

- Stainless steel, flanged support collars and hardware

Housing

- Extruded aluminum with cast aluminum flanged end collars

Finish

- Anodized for corrosion protection
- Powder-coated cast aluminum ends and center inlet collars

Options

- Sound enclosures
- Nozzles and knives for liquid blow-off
- Non-standard voltage for motors

Static Bars and Power Supplies for Air Knife

Standard

- SIMCO MEB Shockless Static Bar and F167 Power Supply

Options

- XP-2 Intrinsically Safe Shockless Static Bar; UL Classification, Class 1, Div. 1, Group D hazardous locations. FM Approved with XP167 Power Supply
- R50 Blue Bar Shockless Static Bar and D167Q Power Supply or M167 Power Supply with monitoring system

Magnum Force Ionizing Nozzle

Finish

- Anodized for corrosion protection
- Spun aluminum casting

Input Connection:

- 4" flexible hose

Mounting

- 3/4" pipe, multiple units mounted on a custom plenum

Air Flow Discharge Distance

- Model X50 - up to 24"
- Model X75 - up to 30"
- Model X125 - up to 48"

Options

- Oscillator

Static Bar for Nozzle

- MEC Shockless Static Bar and F167 Power Supply

Blower

Air Output Velocity

- 5,000 to 25,000 fpm
- Specification certified by Air Movement and Control Association (AMCA)

Power Requirements

- 208-230 or 460 Volts, 60 Hz 3-phase
- Totally enclosed fan-cooled motor (TEFC)
- Fan size varies to fit application

Silencer/Filter

- 10 micron replaceable cartridge in coated steel casing

Housing

- Reinforced fiberglass composite materials

Base

- Powder coated steel

dB Level

- 87dB to 109dB for 3600 RPM blower
- 72dB to 94dB for 1800 RPM blower