Ionising Typhoon Blower Driven Airknife

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1 Ionising Typhoon Blower Driven Airknife

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1.1 Overview

A shockless anti-static bar with airknife combine the effects of air amplification and ionisation.

1.2 Benefits

This combined effect can be used for static neutralising and dust removal in a single operation, for instance in the automotive finishing, printing, packaging, plastics and textile industries.

1.3 Applications

A shockless anti-static bar with airknife combine the effects of air amplification and ionisation to produce a high-velocity "sheet" of ionised air (amplification ratio as high as 25:1). The airknife is very compact and does not have any moving parts.

2 Models

2.1 Ionising Typhoon Blower Driven Airknife

SIMCO's Typhoon airknives eliminate static and removes particulate from flat or contoured surfaces. Typhoon incorporates a high-velocity blower with a deep penetration airknife. This system provides a continuous stream of clean ionised air for removal of surface particulate and contamination. The Typhoon is adaptable to large halo systems used for auto and truck body cleaning prior to painting. It is also extremely suitable for smaller pre-paint cleaning systems for plastic parts and fascia. By using blowers instead of compressed air, Typhoon can reduce operational costs by 30 to 70%.

The system is constructed of extruded aluminium. This design provides flexibility and precise air volume control.'s static elimination bar EP-SH-N (or for use in hazardous zones the P-SH-N-Ex), break the electrostatic bond holding particulate to the material. The high-velocity air flow then easily removes the particulate from the product surface. Several sizes of direct-drive, low maintenance blowers are available to meet the requirements of your application.

EP-Sh-N: Typhoon with Anti-static bar

The airknife is constructed of extruded aluminium with incorporated mounting grooves. This design provides a precise air volume over the entire width of the airknife. In the airkife tube a high air pressure appears and is flowing out of the airknife narrow outflow opening. The anti-static bar produces positive and negative ions which are blown onto the surface by the airknife. The electrons will now be exchanged, which causes the surface to be neutralised and the impurities to be removed. For use in hazardous zones, the Typhoon with the P-Sh-N-Ex anti-static bar is approved. Airpressure sensor Each Typhoon system is supplied with an airpressure sensor wich can measure the air pressure inside the airknife. If the pressure drops under the required level, the system does not work optimal. A system check is then neccessary, often it appears that the air filter needs to be cleaned. Power unit A2A7M Typhoon systems with EP-Sh-N anti-static bars incorporate a power unit type A2A7M. This unit contains an additional 12V power source for connection of the airpressure sensor.

Model	EP-Sh-N
Working distance	2000 mm max.
Working width	on demand
Housing material	aluminum
Ionizing bar matarial	PVC
Emitter pin	special alloy
Cable	metal shielded
Weight	4 kg/m
Ambient temperature	0 - 55°
Use circumstances	industrial
Operating voltage	7 kV AC
Air connection	75 mm diam.

P-Sh-N-Ex: Typhoon with Anti-static bar

The airknife is constructed of extruded aluminium with incorporated mounting grooves. This design provides a precise air volume over the entire width of the airknife. In the airkife tube a high air pressure appears and is flowing out of the airknife narrow outflow opening. The anti-static bar produces positive and negative ions which are blown onto the surface by the airknife. The electrons will now be exchanged, which causes the surface to be neutralised and the impurities to be removed. For use in hazardous zones, the Typhoon with the P-Sh-N-Ex anti-static bar is approved.

Model	P-Sh-N-Ex
Working distance	2000 mm max.
Working width	on demand
Housing material	aluminum / steel
Ionizing bar matarial	PVC
Emitter pin	special alloy
Cable	Neoprene
Weight	base 2 kg + 4,3 kg/m
Ambient temperature	0 - 40°
Use circumstances	industrial
Operating voltage	7 kV AC
Air connection	75 mm diam.

2.2 Typhoon Blower

Dependent from the required air pressure the capacity of the blower can be determined, and SIMCO can offer the right blower.

Typhoon: Blower for airknife

A Typhoon system consists of a blower with one or several air knives and tubes. Each system will be tailored specifically for a customers application. A checklist can be completed by the customer with all specific data. If needed SIMCO can supply a trial system so the customer can determine the air pressure (blow off force) needed to eliminate static charges and or removing impurities. Dependent from the required air pressure the capacity of the blower can be determined, and SIMCO can offer the right blower.

Model	Typhoon
	

3 Technical data

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EP-Sh-N	2000 mm max.	on demand	aluminum	PVC
P-Sh-N-Ex	2000 mm max.	on demand	aluminum / steel	PVC

Model	Emitter pin	Cable	Weight
EP-Sh-N	special alloy	metal shielded	4 kg/m
P-Sh-N-Ex	special alloy	Neoprene	base 2 kg + 4,3 kg/m

Model	Ambient temperature	Use circumstances	Operating voltage	Air connection
EP-Sh-N	0 - 55°	industrial	7 kV AC	75 mm diam.
P-Sh-N-Ex	0 - 40°	industrial	7 kV AC	75 mm diam.

Typhoon Blower

Model
Typhoon