

ION-JET SUPER AIR-KNIFE

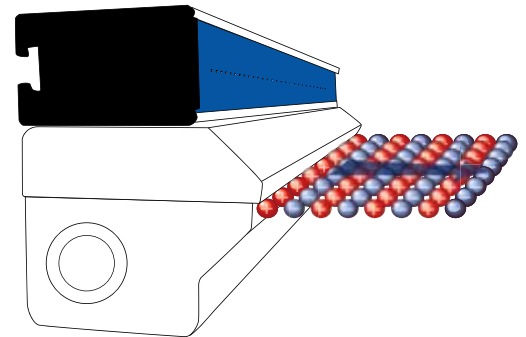
High Performance Static Elimination Plus a High Velocity Curtain of Air for Blowoff

Static Elimination and Jet-Air Action

The TAKK Ion-Jet Super Air-Knife gives a combination of ultra high positive and negative ion output, plus a hard hitting curtain of air for web, sheet and part blowoff. Thus eliminating the costly production problems of static electricity and offering the multiple benefits of high velocity air cleaning and prepping of equipment and parts.

The Super Air-Knife component affords a quiet and efficient way to clean, dry, cool or prep webs, conveyors, sheets or parts. It utilizes the coanda effect (wall attachment of a high velocity fluid) to create air motion in its surroundings. Using a small amount of compressed air as a power source, it pulls in large volumes of surrounding air to produce a high flow concentration of air for blowoff. Amplification ratios (entrained air to compressed air) are 40:1. Air savings of 40% to 90% are achieved compared to "homemade" blowoff devices. The Super Air-Knife dramatically reduces "windshear" by gradually introducing the entrained air to the ejected compressed air. Noise level is typically cut in half.

The Super Air-Knife is coupled with TAKK's Model 400T Static Eliminator Bar. The bar produces a high positive and negative ion output that is distributed via the Super Air-Knife's jet air stream to equipment surfaces and parts...eliminating the toughest static electricity problems. Machinery can be operated at optimum speeds with fewer rejects, product quality is enhanced, and operators are protected from shock.



**REDUCE REJECTS
INCREASE MACHINE SPEEDS & PRODUCTIVITY
ENHANCE QUALITY & SAFETY**

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TAKK INDUSTRIES INCORPORATED

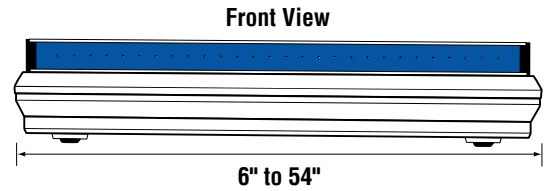
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Super Air-Knife Specifications

A complete system contains an Ion-Jet Super Air-Knife with a 10 ft. power cable and a power supply. The power supply must be ordered separately.

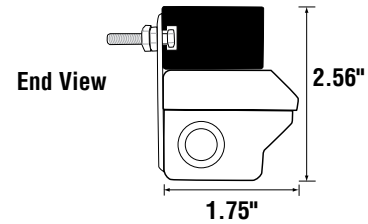
Super Air-Knife:

Minimum Air Pressure: 5 PSIG
 Maximum Air Pressure: 100 PSIG
 Air Amplification: 40:1
 Dimensions: Available in 6" to 54" lengths in six inch increments. Air-Knives can be ganged for applications requiring longer lengths.



Power Supply:

115 or 220 volts, 50/60 HZ, AC
 Current: 0.5 AMP
 Weight: 5 lbs.
 Dimensions: 3.5"W x 3.25"H x 5.5"L



Options:

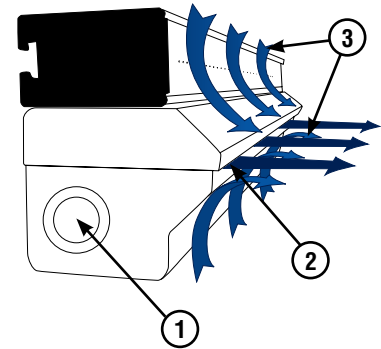
Part #2224 - Air Regulator with Mounting Bracket
 Part #2223 - Air Pressure Gauge

Shim Sets:

Standard unit includes a .002" shim. Each optional shim set includes a .001" shim, a .003" shim and a .004" shim.

How the Super Air-Knife Works

Compressed air flows through the inlet (1) into a plenum chamber of the Super Air Knife. The flow is directed to a precise, slotted orifice. As the primary airflow exits the thin slotted nozzle (2), it directs the airflow in a perfectly straight line. This creates a uniform sheet of air across the entire length of the Super Air Knife. Velocity loss is minimized and force is maximized as the room air (3) is entrained into the primary airstream at a ratio of 40:1. The result is a well defined sheet of laminar airflow with hard-hitting force and minimal wind shear.



Super Air-Knife Performance*

Air Consumption per inch (25mm)		Velocity at 6" (15cm) from target		Sound level at 3' (91cm)	Force per inch (2.5cm) at 6" (15cm) from target	
SCFM	SLPM	FPM	M/S	dBA	OUNCES	GRAMS
17.4	492	11,800	57.9	69	2.5	71

* All measurements taken at 80 PSIG (5.5 BAR);
 6" (153mm) Super Air-Knife tested

Super Air-Knife Air Consumption*

Pressure Supply		Air Consumption per Inch (25mm)	
PSIG	BAR	SCFM	SLPM
20	1.4	1.1	31
40	2.8	1.7	48
60	4.1	2.3	65
80	5.5	2.9	82
100	6.9	3.5	99

*with .002 (.05mm) thick shim installed;
 12" (305mm) Super Air-Knife tested



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