

## GEN4™ Standard Ion Air Knife



## GEN4™ Standard Ion Air Knife™

**A sheet of ionized air is an effective way to eliminate static and clean parts or materials!**



### What Is The GEN4 Standard Ion Air Knife?

EXAIR's Gen4 Standard Ion Air Knife offers 30% improved performance at low pressures allowing you to achieve the same or better results, which saves compressed air and money. They are an effective way to eliminate static. Like its "super" counterpart, the Gen4 Standard Ion Air Knife removes static electricity from plastics, webs, sheet stock and other surfaces where tearing, jamming or hazardous shocks are a problem.

This ionizer uses our original Standard Air Knife to carry ions from a Gen4 Ionizing Bar to the charged surface - up to 20 feet (6.1m) away. Though not as efficient as our Gen4 Super Ion Air Knife (40:1 air amplification), the Gen4 Standard Ion Air Knife (30:1 air amplification) still provides fast static decay and strong blowoff force for cleaning. Force can be adjusted from a "blast" to a "breeze". The Gen4 Standard Ion Air Knife is electrically powered, is shockless and has no moving parts.

### Why The GEN4 Standard Ion Air Knife?

When air consumption and noise level are not critical to the application, the lower cost makes the Gen4 Standard Ion Air Knife a good choice. (To compare the Gen4 Super Ion Air Knife and Gen4 Standard Ion Air Knife, see the performance tables on pages 111 and 117.)

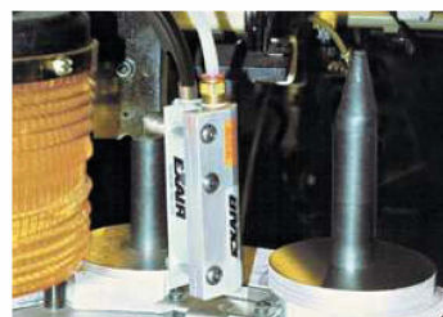
Compressed air inlets are provided on each end of the Gen4 Standard Ion Air Knife. For long spans, multiple Gen4 Standard Ion Air Knives can be mounted end-to-end. This produces an air gap at the connection end of about 2" (51mm). (If no air gap is desired, use the Gen4 Super Ion Air Knife.) Special length Gen4 Ionizing Bars up to 119" (3.02m) are available for multiple air knife applications.



The Model 8218 18" (457mm) Gen4 Standard Ion Air Knife System showers parts with static eliminating ions to prevent personnel shocks.



A Model 8212 12" (305mm) Gen4 Standard Ion Air Knife System cleans metal frames prior to powder coating.



A Model 8103 3" (76mm) Gen4 Standard Ion Air Knife removes dust from computer hard disks prior to assembly.

### Applications

- Web cleaning
- Molding machinery
- Sheeters and trimmers
- Cleaning parts
- Pre-paint dust removal
- Shrink wrappers
- Package cleaning
- Bag opening/fill operations
- Printing equipment

### Advantages

- 30% improved performance
- Rugged metal armored and electromagnetically shielded cable
- Integrated ground eliminates additional ground connection
- Durable stainless steel connections to Power Supply
- Reduced air consumption
- 30:1 air amplification
- Low noise level
- Effective up to 20 feet (6.1m)
- Shockless, non-radioactive
- Compact, rugged, easy to install
- Unlimited system lengths
- Low maintenance
- Variable force and flow

## Gen4™ Standard Ion Air Knife

### Gen4 Standard Ion Air Knife Performance

Pressure Supply		Air Consumption*		Sound Level	Dissipates 5kV**
PSIG	BAR	SCFM	SLPM	dBA	SECONDS
5	0.3	6	170	66	0.38
10	0.7	8	227	68	0.28
20	1.4	16	453	69	0.29
40	2.8	24	679	78	0.21
60	4.1	32	906	84	0.21
80	5.5	41	1,160	87	0.21
100	6.9	49	1,387	90	0.21

\* per foot (305mm) of length \*\* 6" (152mm) from target.  
For airflow pattern, see Standard Air Knife page 33.  
Note: Performance on lengths over 36" will vary.  
Contact an Application Engineer for details.



Kits include the Gen4 Standard Ion Air Knife, shim set, Model 7960 Gen4 Power Supply, filter separator and pressure regulator (with coupler).

### Gen4 Standard Ion Air Knife Specifications

The Gen4 Standard Ion Air Knife is available in standard lengths of 3", 6", 9", 12", 18", 24", 30", 36", 42" and 48" (76, 152, 229, 305, 457, 610, 762, 914, 1067 and 1219mm).

**Special lengths up to 48" (1219mm) and unlimited system lengths are available (please contact our factory).**

A 5' (1.52m) armored and shielded power cable with ground and assembled bayonet connector are included. **EXAIR Model 7960 or 7961 Gen4 Power Supply (5kV) is required for bar operation.** See page 129 for details.

**Certifications:** Gen4 Ionizing Bars and Gen4 Power Supplies are UL Component Recognized to U.S. and Canadian safety standards, and are CE and RoHS compliant.

**Compressed Air:** 1/4 NPT inlets are provided on each end.

**Electrical:** For use with 5 kVrms, 5 milliamperes (max.) power supply.

**Electrical Hazard:** Gen4 Ionizing Bars are shockless (less than 40 microamperes short circuited).

**Do not use near flammable materials or gases.**

**Materials of Construction:**

**Metal Parts:** Aluminum

**Plastic Parts:** UL rated 94 HB

**Emitters:** Stainless Steel

**Maximum Ambient Temperature:** 165°F (74°C)

**Shims:** Thicker shims can be installed easily if additional hard-hitting velocity is required, see "shim sets" page 32.



Static Eliminators

### Gen4 Standard Ion Air Knife Models

**Gen4 Standard Ion Air Knife** - consists of the Standard Air Knife and Gen4 Ionizing Bar assembly. Does not include Power Supply.

**Gen4 Standard Ion Air Knife Systems** - include a Gen4 Standard Ion Air Knife and Model 7960 Gen4 Power Supply (115V, 230V, 50/60Hz).

**Gen4 Standard Ion Air Knife Kits** - include a Gen4 Standard Ion Air Knife, Model 7960 Gen4 Power Supply, shim set, filter separator and pressure regulator (with coupler).

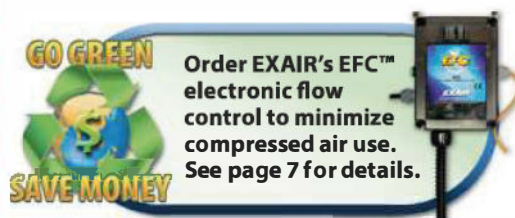
**Gen4 Deluxe Standard Ion Air Knife Kits** - include a Gen4 Standard Ion Air Knife, EFC, Universal Mounting System, Model 7960 Gen4 Power Supply, shim set, filter separator and pressure regulator (with coupler).

Length	Gen4 Standard Ion Air Knife Model	Gen4 Standard Ion Air Knife Systems Model	Gen4 Standard Ion Air Knife Kits Model	Gen4 Deluxe Standard Ion Air Knife Kits Model
3" (76mm)	8103	8203	8403	8403DX
6" (152mm)	8106	8206	8406	8406DX
9" (229mm)	8109	8209	8409	8409DX
12" (305mm)	8112	8212	8412	8412DX
18" (457mm)	8118	8218	8418	8418DX
24" (610mm)	8124	8224	8424	8424DX
30" (762mm)	8130	8230	8430	8430DX
36" (914mm)	8136	8236	8436	8436DX
42" (1067mm)	8142	8242	8442	8442DX
48" (1219mm)	8148	8248	8448	8448DX

Special length Gen4 Standard Ion Air Knives and unlimited system lengths are available. Please contact our factory.

### Universal Air Knife Mounting System

EXAIR's Universal Air Knife Mounting System allows easy positioning of all EXAIR Air Knives. See page 27 for details.



## GEN4™ Power Supplies

**Selectable Voltage:**

**For use with all Gen4 Static Eliminators!**

### Why Use GEN4 Power Supplies?

The two and four outlet Gen4 Power supplies have selectable voltage which allows you to choose input voltages of 115VAC or 230VAC. The modular cable with electromagnetic shielding protects sensitive electronics against electromagnetic interference while easing connections and routing. An integrated fuse on the primary protects against voltage spikes.

### GEN4 Power Supplies

The Two and Four Outlet selectable voltage Gen4 Power Supplies require an input of 115VAC, 50/60 Hz or 230VAC, 50/60 Hz. A 6' (1.83m) modular power cord and lighted power switch are included. Power Supplies are UL Component Recognized to U.S. and Canadian safety standards, and are CE and RoHS compliant.



The Model 7960 Gen4 Power Supply has 115VAC or 230VAC selectable voltage, lighted power switch, integral fuse on the primary, electromagnetically shielded modular power cable and (2) 5kV outlets.



The Model 7961 Gen4 Power Supply has 115VAC or 230VAC selectable voltage, lighted power switch, integral fuse on the primary, electromagnetically shielded modular power cable and (4) 5kV outlets.

### GEN4 Power Supplies: Selectable Voltage

Model #	Description
<b>7960</b>	2 Outlet Selectable Voltage Gen4 Power Supply (115V, 230V, 50/60Hz)
<b>7961</b>	4 Outlet Selectable Voltage Gen4 Power Supply (115V, 230V, 50/60Hz)

### Advantages

- Replaceable rocker switch
- Durable, stainless steel high voltage connections
- Selectable voltage 115VAC or 230VAC
- Electromagnetically shielded modular power cable
- Fuse protects against voltage spikes
- Modular power supply cable eases connections and routing.

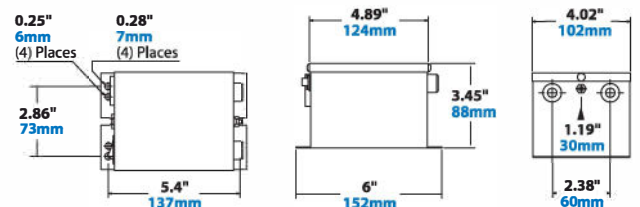
### GEN4 Power Supply Dimensions



INPUT VOLTAGE: 115/230 VAC  
INPUT CURRENT: .2/1 A MAX  
FREQUENCY: 50/60 HZ

OUTPUT VOLTAGE: 5000 Vrms  
OUTPUT CURRENT: 5 mA MAX

#### Model 7960



#### Model 7961

