

Full-Flow Air Knife



Air Knives

Full-Flow Air Knife™

This low cost choice provides a curtain of air for blowoff, cleaning, drying and cooling.



What Is The Full-Flow Air Knife?

EXAIR's Full-Flow Air Knife is an effective way to clean, dry or cool parts, webs or conveyors. It utilizes the Coanda effect to pull in large volumes of surrounding air, producing a high flow, high velocity curtain of air. The "Full-Flow" provides airflow across the entire length. A 12" (305mm) Full-Flow Air Knife measures 12" (305mm). It has the compressed air inlet(s) on the rear.

Full-Flow Air Knife Specifications

The Full-Flow Air Knife is available in eight standard lengths of 3", 6", 9", 12", 18", 24", 30" and 36" (76, 152, 229, 305, 457, 610, 762 and 914mm). **Special lengths up to 36" (914mm) and unlimited system lengths are available.**

Compressed Air Inlet(s): A Full-Flow Air Knife has the compressed air inlet(s) on the rear. Inlets are available on each end at a small additional charge, however, they are not recommended for applications where uniform airflow across the length is required.

Filtration: The use of clean air is essential. Kits include an automatic drain filter with a 5 micron filter element that is sized properly for flow.

Materials of Construction: The Full-Flow Air Knife is available in either aluminum or stainless steel construction.

Mounting: See page 29 for complete details on the Universal Air Knife Mounting System. The Full-Flow Air Knife can also be supported by the compressed air pipe.



Kits include a Full-Flow Air Knife, shim set, filter separator and pressure regulator (with coupler).

Regulation: A pressure regulator on the compressed air supply provides infinite control of flow, force, and air consumption. Kits include a pressure regulator that is sized properly for flow.

Shim Sets: A Full-Flow Air Knife has a .002" (0.05mm) gap setting. This gap is set with a shim positioned between the cap and body of the Full-Flow Air Knife. Force and flow through the Full-Flow Air Knife may be easily increased by adding shims to open the gap. Kits include a shim set. Shim sets for aluminum Full-Flow Air Knives include a .001" (0.03mm) Amber color, .003" (0.08mm) Green color, and .004" (0.10mm) Tan color plastic shims. Shim sets for stainless steel Full-Flow Air Knives include (1) .002" (0.05mm) thick stainless steel shim.

Full-Flow Air Knife Performance with .002" (0.05mm) thick shim installed

PSIG	BAR	Air Consumption per Inch (25mm)		Velocity @ 6" (152mm) from target		Sound Level @ 3' (914mm) dBA	Force per Inch (25mm) @ 6" (152mm) from target	
		SCFM	SLPM	FPM	M/S		Ozs	Grams
20	1.4	1.1	31	3,000	15.2	64	0.4	11
40	2.8	1.8	51	5,000	25.4	72	1.0	28
60	4.1	2.4	68	7,500	38.1	76	1.6	45
80	5.5	3.1	88	10,000	50.8	80	2.3	65
100	6.9	3.8	108	12,000	61.0	83	2.9	82

? Is the Full-Flow Air Knife best for your application? see page 32

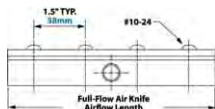
12" (305mm) Full-Flow Air Knife tested





A series of Full-Flow Air Knives "float" layers of plastic film in the confined space of the machine.

Full-Flow Air Knife Dimensions

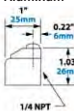


Full-Flow Air Knife Only

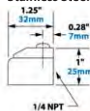
Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2603	2603SS
6" (152mm)	2606	2606SS
9" (229mm)	2609	2609SS
12" (305mm)	2612	2612SS
18" (457mm)	2618	2618SS
24" (610mm)	2624	2624SS
30" (762mm)	2630	2630SS
36" (914mm)	2636	2636SS



Aluminum



Stainless Steel



Full-Flow Air Knife Kits

Kits include a Full-Flow Air Knife, shim set, filter separator and pressure regulator (with coupler).

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2803	2803SS
6" (152mm)	2806	2806SS
9" (229mm)	2809	2809SS
12" (305mm)	2812	2812SS
18" (457mm)	2818	2818SS
24" (610mm)	2824	2824SS
30" (762mm)	2830	2830SS
36" (914mm)	2836	2836SS

Deluxe Full-Flow Air Knife Kits

Kits include a Full-Flow Air Knife, EFC, Universal Mounting System, shim set, filter separator and pressure regulator (with coupler).

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2803DX	2803SSDX
6" (152mm)	2806DX	2806SSDX
9" (229mm)	2809DX	2809SSDX
12" (305mm)	2812DX	2812SSDX
18" (457mm)	2818DX	2818SSDX
24" (610mm)	2824DX	2824SSDX
30" (762mm)	2830DX	2830SSDX
36" (914mm)	2836DX	2836SSDX

Full-Flow Air Knife Shim Sets

Shim Sets include (1) each of a .001" (0.03mm), .003" (0.08mm) and .004" (0.10mm) plastic shim. Stainless Steel Shim Sets include (1) .002" (0.05mm) thick shim.

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2903	2903SS
6" (152mm)	2906	2906SS
9" (229mm)	2909	2909SS
12" (305mm)	2912	2912SS
18" (457mm)	2918	2918SS
24" (610mm)	2924	2924SS
30" (762mm)	2930	2930SS
36" (914mm)	2936	2936SS

Airflow Pattern



Accessories

Model #	Description
9001	Auto Drain Filter Separator, 3/8 NPT, 65 SCFM (1,841 SLPM)
9032	Auto Drain Filter Separator, 1/2 NPT, 90 SCFM (2,549 SLPM)
9002	Auto Drain Filter Separator, 3/4 NPT, 220 SCFM (6,230 SLPM)
9005	Oil Removal Filter, 3/8 NPT, 15-37 SCFM (425-1,048 SLPM)
9006	Oil Removal Filter, 3/4 NPT, 50-150 SCFM (1,416-4,248 SLPM)
9008	Pressure Regulator, 1/4 NPT, 50 SCFM (1,416 SLPM)
9033	Pressure Regulator, 1/2 NPT, 100 SCFM (2,832 SLPM)
9009	Pressure Regulator, 3/4 NPT, 220 SCFM (6,230 SLPM)
9020	Solenoid Valve, 120V, 50/60Hz, 1/4 NPT, 40 SCFM (1,133 SLPM)
9034	NEMA 4/4X Solenoid Valve, 120V, 50/60Hz, 1/2 NPT, 100 SCFM (2,832 SLPM)
9036	NEMA 4/4X Solenoid Valve, 120V, 50/60Hz, 3/4 NPT, 200 SCFM (5,664 SLPM)
9065	NEMA 4/4X Solenoid Valve, 24VDC, 1 NPT, 350 SCFM (9,911 SLPM)

Special length Full-Flow Air Knives and unlimited system lengths are available. Magnetic bases with Stay Set™ flexible hoses are also available for smaller Full-Flow Air Knives. Please contact our factory.

Inlets on each end are available at a small charge. This is not recommended if uniform flow is desired. Please contact one of our Application Engineers for details.

Universal Air Knife Mounting System



EXAIR's Universal Air Knife Mounting System allows for easy positioning of all EXAIR Air Knives. See page 29 for details.